



Miami-Dade Transportation
Planning Organization

DOWNTOWN MIAMI TRANSPORTATION MASTER PLAN

TECHNICAL MEMORANDUM #1

Assessment of the 2003 Miami Downtown Transportation Master Plan



THE CORRADINO GROUP

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INTRODUCTION

In 2003, the Miami-Dade Transportation Planning Organization (MDTPO) initiated the Miami Downtown Transportation Master Plan (MDTMP), creating a framework for transportation system improvements in the area through 2020. Since then, Downtown Miami has witnessed remarkable growth and development. This study builds upon the MDTPO's prior efforts in the MDTMP, aiming to evaluate and enhance proposed recommendations for the study area, defined by I-95 to the west, Biscayne Bay to the east, SE 26 Road to the south, and I-195 to the north.

The analysis begins by revisiting the 2003 MDTMP, and cataloging the recommended improvements provided in the report that have either been completed or programmed in the 2045 Long Range Transportation Plan (LRTP). Initial findings reveal that ten (10) recommendations from the 2003 study have been successfully implemented, four (4) are currently in progress, twelve (12) have been programmed in the 2045 LRTP, and the remaining seventeen (17) recommendations are pending or require further analysis for implementation. Those recommendations from the 2003 that have been completed have improved pedestrian connections and expanded transit routes.



Figure 1. Map of Study Area.

This report also evaluates the housing and employment projections formulated under the three 2003 development scenarios-- Baseline, Enhanced, and Visionary. An analysis of the 2020 Census Data highlights that housing development has exceeded projections for all three models. Presently, the study area accommodates 70,805 housing units, a substantial increase from the original forecasts. Using 2020 US Census data, the work area profile identifies 189,165 jobs within the study area, closely aligning with the employment forecasts. Notably, the total employment forecast exhibits only a 15% variation from the Visionary scenario.

Furthermore, our analysis includes an in-depth review of relevant studies to uncover key short-, mid-, and long-range projects not considered in the 2003 MDTMP within the study area. Building on these findings and considering the impacts of emerging development and growth patterns, the next step is to engage in a comprehensive discussion on state-of-the-art mobility methods and essential improvements for adapting to evolving technologies. This holistic approach enables us to provide recommendations for short-, mid-, and long-term improvements, along with identifying future-ready areas for strategic implementation.

Table 1: 2003 Development Scenarios

	2020 Baseline	2020 Enhanced	2020 Visionary
Employees	18,000	30,000	48,000
Dwelling Units	15,000	23,000	34,000

¹ Source

Table 2: Housing

Development Scenarios	Total Housing	Difference
1999	8,200	62,605
2020 Baseline	23,200	47,605
2020 Enhanced	31,200	39,605
2020 Visionary	41,800	29,005
2020 Census	70,805	-

² Source

Table 3: Employment

Development Scenarios	Total Employment	Difference
1999	116,000	73,165
2020 Baseline	134,000	55,165
2020 Enhanced	146,000	43,165
2020 Visionary	164,000	25,165
2020 Census	189,165	-

³ Source

¹ 2003 Miami Downtown Transportation Master Plan

² 2003 Miami Downtown Transportation Master Plan, and the U.S. Census Bureau. 2023. LEHD Origin-Destination Employment Statistics (2002-2021) [computer file]. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program [distributor], accessed at <https://onthemap.ces.census.gov>. LODS 8.1 [version]

³ 2003 Miami Downtown Transportation Master Plan, and the U.S. Census Bureau. 2023. LEHD Origin-Destination Employment Statistics (2002-2021) [computer file]. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program [distributor], accessed at <https://onthemap.ces.census.gov>. LODS 8.1 [version]

The following section summarizes and catalogs the Specific Recommendations from the 2003 Miami Downtown Transportation Master Plan to identify which recommendations have been completed, are in process, are programmed in the 2045 LRTP, or require further analysis for future implementation. The original forty-three recommendations were cataloged into three phases: Phase 1, with implementation targeted by 2010; Phase 2, with a goal of implementation by 2015; and Phase 3, with a target implementation date by 2020. The evaluation determined that there are 17 policies that are completed or in process, 11 that have been included in the 2045 LRTP for implementation, and 15 that require further analysis for implementation or may no longer be an appropriate solution given the change in form and demographics observed in the study area.

Table 4: Summary of 2003 Recommendations

● -Completed ● -In-Progress ● -Programmed in 2045 LRTP ● -Not Complete

7.2: SPECIFIC RECOMMENDATIONS		COMPLETED	IN-PROCESS	PROGRAMMED IN 2045 LRTP	NOT COMPLETE FURTHER ANALYSIS REQUIRED
7.2.1	Implement a Free-Fare Transit Zone.				●
7.2.2	Construct pedestrian connection from Bayside to AA Arena	●			
7.2.3	Extend Baylink light rail down Biscayne to Flagler.			●	
7.2.4	Implement a two-way road system.			●	
7.2.5	Improve transit amenities and attributes in the area.	●			
7.2.6	Connect to other neighborhoods with transit.	●			
7.2.7	Implement Intelligent Transportation System (ITS) technology alternatives to help with bridge openings.	●			
7.2.8	Develop an extensive network of pedestrian corridors.			●	
7.2.9	Implement the recommendations from the Miami River Greenway Action Plan.		●		
7.2.10	Connect Brickell Shuttle to Flagler Shuttle.	●			
7.2.11	Reconfigure Metromover in the Dupont Plaza Area				●
7.2.12	Implement ITS for Special Events			●	
7.2.13	Provide a pedestrian walkway along Biscayne Bay from Pace Park to Bayside		●		

7.2: SPECIFIC RECOMMENDATIONS		COMPLETED	IN-PROCESS	PROGRAMMED IN 2045 LRTP	NOT COMPLETE FURTHER ANALYSIS REQUIRED
7.2.14	Implement Biscayne Boulevard Improvements from NE 6 Street to NE 14 Street	●			
7.2.15	Build a new tunnel under the Miami River at SW 1 Avenue			●	
7.2.16	Improve pedestrian connections in Bicentennial Park	●			
7.2.17	Improve NE 1 and 2 Avenues for truck traffic				●
7.2.18	Complete Downtown Miami DDA signage plan		●		
7.2.19	Provide a truck-only tunnel from the Seaport to Watson Island	●			
7.2.20	Widen and extend West 1 Avenue				●
7.2.21	Extend SE 1 Avenue from SE 8 Street to SE 5 Street				●
7.2.22	Improve bicycle facilities			●	
7.2.23	Extend Metrorail to AA Arena and Seaport			●	
7.2.24	Remove I-95 Distributor Ramps and provide a “Grand Boulevard” on South 3 Street				●
7.2.25	Provide a shuttle system into Wynwood	●			
7.2.26	Provide a Shuttle to Watson Island			●	
7.2.27	Extend the Metromover through the Brickell Financial District			●	
7.2.28	I-395/ SR 836/ I-95 Design Build Project (Depress I-395)		●		
7.2.29	Implement Flagler Shuttle				●
7.2.30	Provide a Port Boulevard U-Turn				●
7.2.31	Create a Shuttle System for the Brickell residential area (from 13 Road to 26 Road)	●			

7.2: SPECIFIC RECOMMENDATIONS		COMPLETED	IN-PROCESS	PROGRAMMED IN 2045 LRTP	NOT COMPLETE FURTHER ANALYSIS REQUIRED
7.2.32	Provide a transit greenway				●
7.2.33	Implement traffic calming alternatives through Brickell residential areas	●			
7.2.34	Extend Metromover into Wynwood				●
7.2.35	Extend the Metromover to 26 Road				●
7.2.36	Build an I-95 northbound on-ramp at North 6 Street to provide access to westbound SR 836				●
7.2.37	Improve North 14 Street from I-95 to Biscayne Boulevard				●
7.2.38	Provide Commuter Rail to Broward County	●			
7.2.39	Provide a Brickell Key Water Taxi			●	
7.2.40	Provide a Water Taxi/Ferry to Watson Island			●	
7.2.41	Provide a partial I-95 Interchange at NW 29 Street				●
7.2.42	Construct an interchange on I-95 at NW 14 Street	●			
7.2.43	Depress I-95				●

2003 PHASE I RECOMMENDATIONS: IMPLEMENTATION BY 2010

IMPLEMENT A FREE-FARE TRANSIT ZONE IN DOWNTOWN MIAMI (RECOMMENDATION 7.2.1)

Free transit service and excellent service quality play a vital role in boosting public transit ridership. Downtown Miami's transit infrastructure, including the Metromover, makes it an ideal candidate for this concept. At the time of the initial recommendation, the Metromover had transitioned to a free service, which reportedly led to a ridership increase of over 40%, as indicated by Miami-Dade Transit. Eliminating fares draws more riders and offers intangible benefits like convenience and reduced delays. This improves the system efficiency by cutting administrative and equipment costs. Implementing the Free-Fare Transit Zone throughout the study area was originally recommended, enabling free use and transfers between the local transit systems.

Status: Currently, both Metromover and the City of Miami Trolley services provide free transit within the study area. A recommendation for a free-fare transit zone in Downtown Miami was not programmed in the 2045 LRTP, and it requires further analysis for future implementation.

CONSTRUCT A PEDESTRIAN CONNECTION FROM BAYSIDE TO KASEYA CENTER, FORMERLY KNOWN AS THE AMERICAN AIRLINE ARENA (RECOMMENDATION 7.2.2)

Bayside Marketplace and the Kaseya Center are prominent attractions in Downtown Miami, and they often draw overlapping visitors, with many arena attendees also exploring the Bayside Marketplace. A pedestrian connection connecting the two properties was recommended for Phase 1, where the idea of building a pedestrian bridge over Port Boulevard to improve connectivity between these two destinations was contemplated.

Status: Figure 2 highlights the constructed paved path connecting Bayside to the Kesaya Center and the Pérez Art Museum Miami (PAMM), with the trail path routed under the Port Miami Bridge connecting the two properties.



Figure 2. Paved path from Bayside to Kesaya Center

IMPLEMENT A TWO-WAY ROAD SYSTEM IN DOWNTOWN MIAMI (RECOMMENDATION 7.2.4)

The shift from one-way to two-way streets is part of a broader trend in downtown planning that emphasizes pedestrian-friendly environments and reduced vehicle speeds. Proposed street conversions from the original recommendation included several key routes within Downtown Miami. Some conversions, like the conversion of SE/SW 7th and 8th Streets were envisioned to help address specific issues, such as congestion resulting from the Brickell Bridge openings. Feasibility studies and early implementation stages were completed for several of these changes, with Flagler Street's conversion to two-way traffic being one example. The transition to a two-way system would simplify navigation for motorists and enhance pedestrian safety. While critical arteries like NE/NW 5 Street and NE/NW 6 Street are suggested to remain one-way for high capacity and minimal disruption of access patterns. Conversion of streets was determined to be cost-effective, primarily involving adjustments to pavement markings, signs, and traffic signals, with lane and parking availability mostly unaffected. Some streets, like Flagler Street depicted in Figure 3, were identified to offer opportunities for additional enhancements, such as landscaped medians, wider sidewalks, more on-street parking, and pedestrian amenities, further improving the overall urban environment. The following streets were part of the original recommendation for conversion from one-way to two-way operation:



Figure 3. A photograph of Flagler Street in the past and a rendering of proposed improvements.

- SE 8th Street (US-41/Tamiami Trail) from Brickell Avenue (SR 5/US-1) to South Miami Avenue
- SW 8th Street (US-41/Tamiami Trail) from South Miami Avenue to I-95
- SE/SW 7th Street (US-41/Tamiami Trail) from Brickell Avenue to I-95
- Biscayne Boulevard Way (SE 4th Street) from SE 2nd Avenue to Biscayne Boulevard (SR 5/US-1)

- SE 3rd Street from SE 2nd Avenue to Biscayne Boulevard (SR 5/US-1)
- SE 2nd Street from SE 2nd Avenue to Biscayne Boulevard (SR 5/US-1)
- SE/SW 1st Street from SW 2nd Avenue to Biscayne Boulevard (SR 5/US-1)
- Flagler Street from Biscayne Boulevard (SR 5/US-1) to NW/SW 3rd Avenue—in process, undergoing street improvements
- NW 1st Street from NW 3rd Avenue to Biscayne Boulevard (SR 5/US-1)
- NW 2nd Street from NW 1st Avenue to Biscayne Boulevard (SR-5/US-1)
- NW 3rd Street from NW 3rd Avenue to Biscayne Boulevard (SR 5/US-1)—NW 3rd Avenue to NW 1st Avenue is a two-way road, with the remainder of the corridor being one-way
- Miami Avenue from Miami River to NE 14th Street
- SE/NE 1st Avenue from SE 3rd Street to NE 15th Street
- SE/NE 2nd Avenue from Biscayne Boulevard Way (SE 4th Street) to NE 13th Street
- SE 3rd Avenue from Biscayne Boulevard Way (SE 4th Street) to Flagler Street—SE 3rd Avenue is a 2-way corridor from Biscayne Boulevard Way to SE 1st Street
- Biscayne Boulevard (SR 5/US-1) from SE 2nd Street to Biscayne Boulevard Way (SE 4th Street)

Status: Programmed in the 2045 LRTP. Flagler Street's improvements currently underway will provide east and west vehicular access and will include enhanced pedestrian features like wide sidewalks, landscaping, and multimodal facilities from the segment of NW 1st Avenue to Biscayne Boulevard (SR 5/US-1).

IMPROVING TRANSIT SERVICE IN DOWNTOWN MIAMI (RECOMMENDATION 7.2.5)

The recommendation for improving transit service to and from Downtown Miami focused on systematic enhancements, user convenience, and cost-effective measures. It prioritized training, quality control, efficient scheduling, and exploring exclusive right-of-way systems, all elements for enhancing transit service. The 2003 study encouraged investing in Advanced Public Transportation Systems (APTS) to monitor and improve system performance, along with using APTS technologies for real-time information sharing and Smart Cards for transfers. These recommendations collectively aimed to make transit service a more effective and convenient option for travel in and out of Downtown Miami, benefiting the region's transportation network.

The success of a transit system relies on both transit amenities and transit level of service (TLOS) attributes. The 2003 recommendation also identified key transit amenities and transit level of service (TLOS) attributes that the transit system relied on.

Transit Amenities:

- Comfortable shelters to protect patrons from the weather
- Adequate lighting and safety measures at shelters
- Clean and safe vehicles

Transit Level of Service (TLOS) Attributes:

- High frequency and long operating hours
- Reliable schedules and reasonable walking distances
- Availability of seats on vehicles
- Courteous drivers and ease of use for riders
- Economical fares

Status: *The County's Better Bus Network, Better Bus Routes, was fully implemented in November 2023. This network will enhance connections between Downtown Miami and various areas countywide, featuring improved route alignment and increased frequency. The number of frequent routes within the network will expand significantly, rising from five to nineteen, resulting in an extensive network of frequent lines that serve most of Miami-Dade County. The Bus Passenger Shelter Program is aligned with the county's transit system, involving the installation of new shelters, trash containers, bicycle racks, and accessibility improvements. As of February 2023, 270 bus shelters, 266 trash containers, 246 illumination systems, and 310 bicycle racks have been installed, contributing to a safer, cleaner, and more connected transit experience, with completion expected by summer 2023.*

CONNECT OTHER NEIGHBORHOODS WITH TRANSIT (RECOMMENDATION 7.2.6)

A thriving Downtown Miami relies on an efficient transit system for residents, workers, and visitors. The 2003 recommendations included a proposed neighborhood transit system aimed to connect neighborhoods near Downtown Miami, including Brickell, Liberty/Model City, Little Haiti, and Wynwood. It envisioned the employment of small buses with high frequencies and a decent capacity to cater to the intermediate-length transit needs in the region, enhancing overall accessibility.

Status: *Today, the City of Miami offers a trolley service to connect neighborhoods like Coral Way, Wynwood, Model City, and Little Haiti with Downtown Miami. During fiscal year 2022-2023, the Wynwood, Brickell, Biscayne, and Coral Way Trolley routes had a total ridership of 1.75 million. The Wynwood trolley route had a total ridership of 97,554; the Brickell route had a total ridership of 356,348; a total of 574,604 riders was counted for the Biscayne route; and 726,741 riders on the Coral Way trolley route.*

IMPLEMENT INTELLIGENT TRANSPORTATION SYSTEM (ITS) TECHNOLOGY ALTERNATIVES TO HELP WITH BRIDGE OPENINGS. (RECOMMENDATION 7.2.7)

To mitigate traffic disruptions in Downtown Miami, particularly in the Brickell area caused by bridge openings, this recommendation proposed an integrated communication system using Intelligent Transportation System (ITS) technology. This system would provide advance warnings to motorists, facilitate communication between vessels, bridge tenders, and the control center, as well as integrate with the Miami-Dade Traffic Control Center. Real-time adjustments during bridge openings would be made possible through Closed Circuit TV cameras. ITS traffic handling strategies would be employed, such as variable message signs, alternate route indications, and adaptive signal retiming. The primary goal of the recommendation was to reduce midday traffic delays resulting from drawbridge openings in the Brickell area.

Status: *Completed. The Florida Department of Transportation (FDOT) has implemented traffic alert features for the Brickell Bridge, including the Florida 511 Advanced Traveler Information System (FL511). Users can subscribe to receive email or text message notifications regarding the status of the drawbridge, whether it is open or closed to traffic. Furthermore, these drawbridge notifications are accessible on the website and the WAZE mobile application, ensuring widespread availability.*

DEVELOP AN EXTENSIVE NETWORK OF PEDESTRIAN CORRIDORS. (RECOMMENDATION 7.2.8)

Vibrant city areas are known for their bustling pedestrian activity, and Downtown Miami is no exception. An extensive network of pedestrian corridors was recommended to promote this vibrancy and ensure pedestrian safety. The systematic effort encompassed various elements, including wider, obstruction-free sidewalks, enhanced sidewalk connectivity, street furniture, ADA compliance, landscaping, shade provision, distinctive paving, marked crosswalks, curb extensions, sidewalk lighting, signal timing adjustments, median refuges, pedestrian detectors, and recessed stop lines. Streets recommended for pedestrian corridor improvement with amenities included:

- Brickell Avenue (SR 5/US-1) from Miami River to SW 26th Road (Rickenbacker Causeway)
- Brickell Bay Drive from SE 8th Street (Carlos Arboleya Boulevard/Brickell Key Drive) to SE 15th Road
- Miami Avenue from SE/SW 12th Street to NE/NW 36 Street (US-27)
- Miami Avenue/SE 1st Avenue (Brickell Plaza) from SE/SW 12th Street to SE/SW 26th Road (Rickenbacker Causeway)
- Biscayne Boulevard (SR 5/US-1) from Biscayne Boulevard Way (SE 4th Street) to NE 36th Street
- SE/SW 13th Street from I-95 to Brickell Avenue (SR 5/US-1)
- SE/SW 10th Street from I-95 to Brickell Avenue (SR 5/US-1) (*Corridor is divided by the Underline's Brickell Backyard*)
- SE/SW 8th Street (US-41/Tamiami Trail/ Carlos Arboleya Boulevard/Brickell Key Drive) from I-95 to Brickell Bay Drive
- SE/SW 15th Road from I-95 to Brickell Bay Drive
- Flagler Street from I-95 to Bayfront Park
- NE 5th Street from NE 1st Avenue to Biscayne Blvd (SR 5/US-1)
- NE 3rd Street from NE 1st Avenue to NE 2nd Avenue
- NE/NW 2nd Street from NW 2nd Avenue to Biscayne Blvd (SR 5/US-1)
- NE/NW 4th Street from I-95 to Biscayne Blvd (SR 5/US-1)
- NW 5th Avenue from NW 21st Street to NW 36th Street (US-27)
- SW/NW 2nd Avenue from SW 15th Road to NW 36th Street (US-27)
- NE 2nd Avenue from NE 3rd Street to NE 5th Street
- NE 1st Avenue from NE 3rd Street to NE 5th Street
- NE/NW 9th Street from I-95 to Biscayne Blvd (SR 5/US-1)
- NE/NW 11th Street from I-95 to Biscayne Blvd (SR 5/US-1)
- NE/NW 14th Street from I-95/I-395 Interchange to Biscayne Blvd (SR 5/US-1)
- NE/NW 17th Street from I-95 to NE 2nd Avenue
- NE/NW 20th Street from I-95 to Biscayne Blvd (SR 5/US-1)
- NE/NW 29th Street from I-95 to Biscayne Blvd (SR 5/US-1)
- NE/NW 36th Street (US-27) from I-95 to Biscayne Blvd (SR 5/US-1)

Status: Various streets are programmed in the 2045 LRTP for pedestrian facilities and improvements. Including: Off-road bicycle and pedestrian facilities improvements to the M-Path Greenlink providing a regional connection to the study area connecting SW 67th Avenue and the Miami River Greenway system for a total project cost of \$141 million (2018); Pedestrian and on-road bicycle facility improvements for the SMART Terminal Connector along NW 20 Street from NW 27 Avenue to Biscayne Boulevard (SR 5/US-1) with a 2018 project cost of \$2,703,255 ; and the SMART Trails SE/SW 26 Road off-bicycle and pedestrian enhancements from the Rickenbacker Causeway to The Underline with a project cost of \$837,520 as of 2018.

IMPLEMENT THE RECOMMENDATIONS FROM THE MIAMI RIVER GREENWAY ACTION PLAN (RECOMMENDATION 7.2.9)

The Miami River Greenway Action Plan outlines the establishment of a pedestrian corridor along both banks of the Miami River, spanning from the Miami Intermodal Center (MIC) to Biscayne Bay. It is enforced through the City of Miami ordinances, which require a 50-foot reservation along the riverbanks for the greenway and requires new development to actively contribute to its creation. While there are still gaps, ongoing development in Downtown Miami is steadily filling them, solidifying the greenway's presence. Figure 4 highlights the extent of the proposed trail network running parallel to the Miami River.

Status: The Miami River Greenway Trail system has been established within the study area, running along the north and south banks of the Miami River from South Miami Avenue towards Brickell Key (south) and Bayfront Park (north). However, west of South Miami Avenue, on both banks, the trail is fragmented due to the ongoing development of riverfront properties. As these properties undergo redevelopment, the trail network is being developed in tandem to ensure continuity. Additional segments outside the study area, connecting to the greenway system, have been programmed in the 2045 LRTP as priority bicycle and pedestrian projects.

Miami River Greenway Action Plan

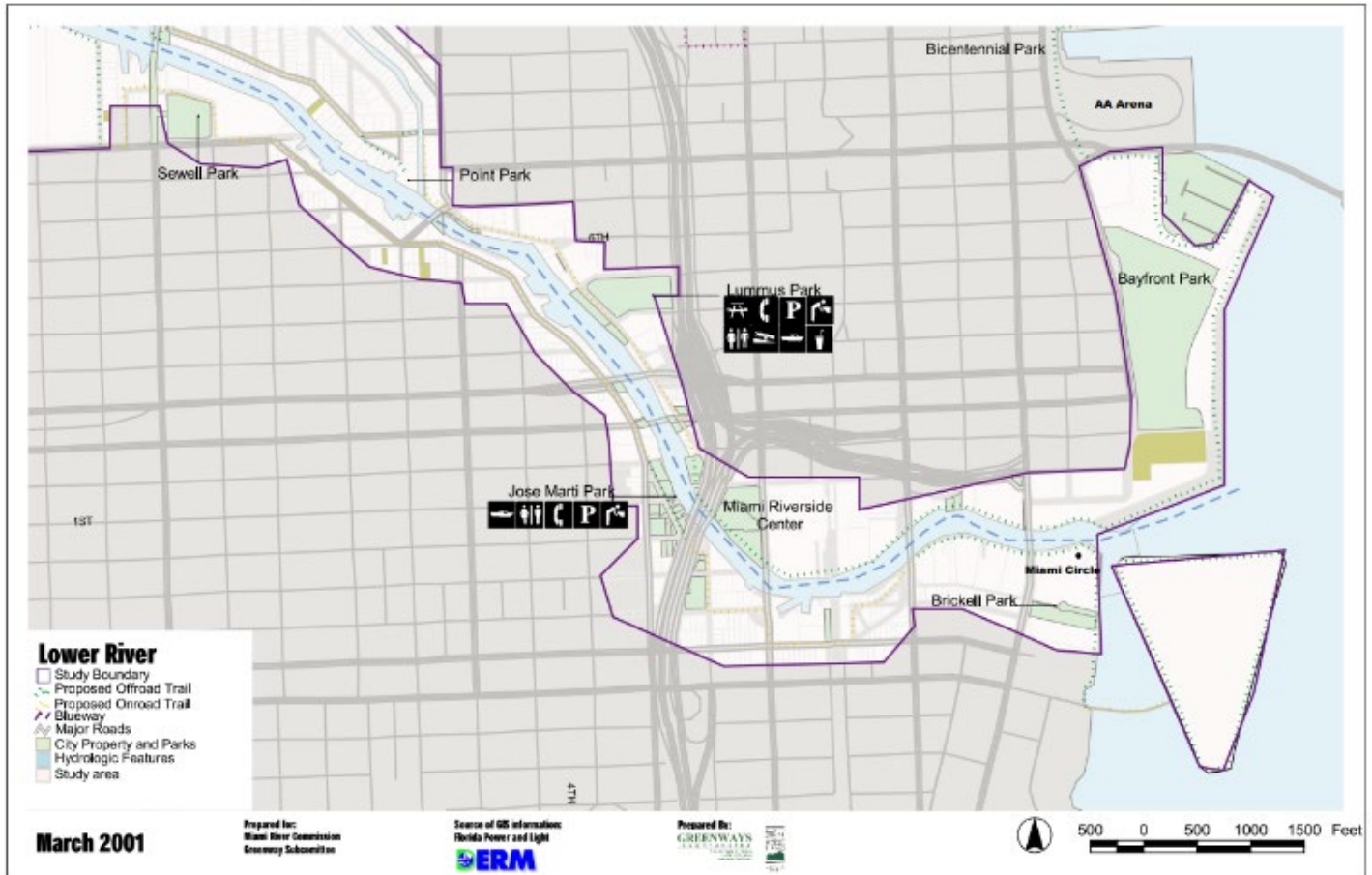


Figure 4. Route Map for the Miami River Greenway Action Plan, April 2001

CONNECT BRICKELL SHUTTLE TO FLAGLER SHUTTLE (RECOMMENDATION 7.2.10)

The goal of this 2003 recommendation was to create a seamless transit experience in Downtown Miami by 2010, prioritizing user-friendliness and efficient connections to final destinations. This involved integrating all shuttles in the area without compromising service quality or frequency. Specifically, the plan included establishing connections to connect the eastern part of Brickell with the core of Flagler Street, enabling efficient bi-directional service on the same roads with loops at both ends

Status: Completed. The City of Miami provides trolley service connecting the eastern part of Brickell with the core of Flagler Street through the Biscayne and Brickell routes. The Brickell route's southern terminus at Dinner Key travels up along Bayshore Drive/S. Miami Avenue to Brickell Avenue, culminating at Brickell Key. The two routes overlap on several streets between SE 15th Road and the Miami River, allowing those on the Brickell route to

seamlessly transfer to the Biscayne route to access Flagler Street. For transit users within the core of the Brickell neighborhood, the Biscayne routes allow for a commute from Brickell to Flagler Street completed in a one-seat trip. The Biscayne route reaches as south as SE 15th Road and travels north up to NE 36th Street and the Midtown neighborhood.

RECONFIGURE METROMOVER IN THE DUPONT PLAZA AREA (RECOMMENDATION 7.2.11)

Metromover has an awkwardly aligned segment in Downtown Miami, along SE 3 Street between SE 2 Avenue and Biscayne Boulevard (SR 5/US-1). Figure 5 illustrates the existing configuration from the I-95 distributor ramp exit onto SE 2 Avenue and SE 3 Street. This segment disrupts traffic flow on the high-volume, and it is considered unsightly. The 2003 recommendation included building a new Metromover station under the redevelopment plans for DuPont Plaza.

Status: *Not programmed in the 2045 LRTP. Improvements require further analysis for future implementation.*



Figure 5. Google Street View, heading east on SE 3 ST from I-95 exit onto SE 2 AVE

IMPLEMENT ITS FOR SPECIAL EVENTS. (RECOMMENDATION 7.2.12)

Efficient management of traffic during special events in Downtown Miami is crucial due to its defining character and positive economic impact. These events, spanning between fixed and occasional venues, add vibrancy to the city. In 2003, the implementation of Intelligent Transportation Systems (ITS) was determined to be an ideal solution to handle event-related traffic, simplifying control plans, ensuring access to essential areas like the PortMiami and Miami-Dade College (MDC), and enabling real-time traffic adjustments based on feedback.

Status: *Programed in the 2045 LRTP under Future Technology.*

PROVIDE A PEDESTRIAN WALKWAY ALONG BISCAYNE BAY FROM MARGARET PACE PARK TO BAYSIDE MARKETPLACE (RECOMMENDATION 7.2.13)

A pedestrian walkway along Biscayne Bay was recommended in 2003 to connect Margaret Pace Park in the north Omni area to Bayside Marketplace to the south. The recommended path aligned with other trails would create a continuous waterfront path from Pace Park to the Miami River.

Status: *The recommendation is partially complete. There is a missing segment between N. Bayshore Drive to NE 13th Street that would connect the Margaret Pace Baywalk to the Museum Park Baywalk and to Bayside Marketplace.*

IMPLEMENT BISCAYNE BOULEVARD (SR 5/US-1) IMPROVEMENTS FROM NE 6 STREET TO NE 14 STREET. (RECOMMENDATION 7.2.14)

The 2003 recommended improvements along Biscayne Boulevard (SR 5/US-1), spanning from NE 6 Street to NE 14th Street, were started at the time of the study. This corridor connects Downtown Miami's core to I-395 and serves a substantial number of residents, workers, and visitors. Unlike the immediate south segment, at the time of the study, this portion lacked raised medians and landscaping and featured narrow sidewalks. The rapid changes in the area, including the new

arena and the Bicentennial Park improvements, made enhancements vital for pedestrian safety, operational efficiency, and aesthetics for this corridor. The City of Miami, in collaboration with FDOT, developed a plan that included wider sidewalks, a spacious median, safe pedestrian crossings, and landscaping. At the time, decisions on the number of traffic lanes and provisions for on-street parking were under consideration. Final studies were pending, with construction plans to follow, ultimately transforming this part of Biscayne Boulevard (SR 5/US-1) into a welcoming entrance to the core of Downtown Miami.

Status: Completed.

IMPROVE PEDESTRIAN CONNECTIONS IN BICENTENNIAL PARK (RECOMMENDATION 7.2.16)

The original study recognized the need for improved pedestrian connections to Maurice A. Ferré Park (formerly known as Bicentennial Park). Areas west of Ferré Park faced challenges due to high-speed traffic lanes on Biscayne Boulevard (SR 5/US-1), while a disconnect was noted between the Omni area north of I-395 to Ferré Park and the general Downtown Miami area. To address this issue, recommendations included extending the Bayfront Park Baywalk to the north, linking the Omni area with Bayfront Park, Bayside Marketplace, and the Miami River Greenway.

Status: Completed. Baywalk and improved connectivity from the west (across Biscayne Boulevard (SR 5/US-1) to Ferré Park was provided with the Biscayne Boulevard streetscape improvements post-2003.

COMPLETE DOWNTOWN MIAMI DDA SIGNAGE PLAN (RECOMMENDATION 7.2.18)

At the time of the 2003 study, the Miami Downtown Development Authority (DDA) launched a signage plan for Downtown Miami. The plan divided the area into sectors, each distinguished by district graphic symbols or color "logos". Phase I, involving sector signs was successfully implemented, while Phases II and III, covering expressway signs, directional signs, kiosks, and parking signs are still awaiting implementation.

Status: In process. In Phase 1 (FDOT), 61 out of 62 signs have been installed. During Phase 2 (City), 92 out of 104 signs have been installed. However, for Phase 3 (County), none of the 63 total signs have been installed yet.

IMPROVE BICYCLE FACILITIES (RECOMMENDATION 7.2.22)

Bicycle facilities in Downtown Miami provide an important transportation option. The 2003 study considered enhancement possibilities like installing bicycle racks and lockers, encouraging businesses to offer showers and changing rooms for cyclists, marking designated bicycle routes with appropriate signage, creating dedicated bicycle lanes, and implementing educational programs. Specific areas in Downtown Miami that were targeted for these improvements include NE/NW 4 Street, Flagler Street, NE/NW 20 Street, and Biscayne Blvd (SR 5/US-1). Notably, the plans envisioned extending the M-Path along the SE 1 Avenue extension to SE 5 Street, then east to Brickell Avenue (SR 5/US-1) and south to the Rickenbacker Causeway. Further extensions were recommended along Brickell Avenue (SR 5/US-1), Biscayne Boulevard Way (SE 4 Street), and north on Biscayne Boulevard (SR 5/US-1) to Ferré Park. Additionally, expansion into the Omni area was recommended to connect with the Venetian Causeway and Margaret Pace Park.

Status: Bicycle access to the Rickenbacker Causeway is provided via the M-Path/The Underline. A shared-use path connecting The Underline from SE 32 Road to Brickell Avenue was programmed in the LRTP 2045 Cost Feasible Plan. An additional connection from The Underline to the Rickenbacker Causeway multi-use trail and bicycle lanes is proposed via a shared-use path on SE/SW 26th Road. Improvements to the M-Path and The Underline were programmed in the 2045 LRTP, including dedicated bike lane segments from Brickell Avenue (SR 5/US-1) to Hobie Island under Plan Z. Bicycle improvements recommended for NE/NW 4th Street and NE/NW 20th Street were not completed. Dedicated bicycle facilities connecting Margaret Pace Park and Venetian Causeway are pending.

PROVIDE A SHUTTLE SYSTEM INTO WYNWOOD (RECOMMENDATION 7.2.25)

This recommendation aimed at improving transit access between Wynwood, the Design District, and Downtown Miami, which at the time were recognized as being somewhat detached from each other. It suggested a shuttle service along NW 2nd Avenue to NW 36th Street (US-27), returning on Biscayne Boulevard (SR5/US-1) to the Omni/Overtown/Park West area. The shuttle would enhance convenience for residents and encourage interaction between these neighborhoods and Downtown.

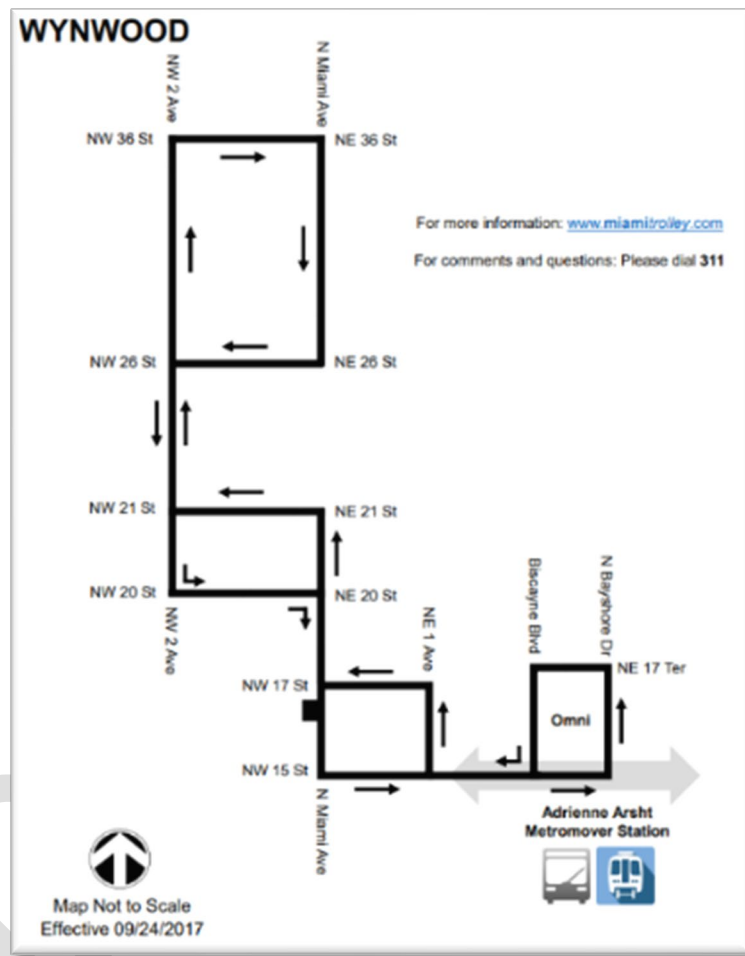


Figure 6. City of Miami Wynwood trolley route map

Status: Completed. The City of Miami trolley system provides the Wynwood route connecting the Adrienne Arsht Metromover Station to Wynwood through NW 2 Avenue and up to NW 36 Street (US-27). The Wynwood trolley route map is illustrated in Figure 6. During fiscal year 2022-2023, the Wynwood trolley route had a ridership of 97,554.

PROVIDE A SHUTTLE TO WATSON ISLAND (RECOMMENDATION 7.2.26)

At the time of the original study, Watson Island, situated to the east of Downtown Miami, was transforming into a distinctive destination with existing attractions like the Parrot Jungle and a children's museum and planned mixed-use developments including restaurants and a mega-yacht marina. The anticipated demand for travel to and from Watson Island necessitated an efficient transit connection, resulting in the proposed recommendation for a dedicated shuttle.

Status: The Baylink project is set to be replaced by the SMART Plan's Bus Rapid Transit (BRT) services for the Beach Corridor and is included in the 2045 LRTP.

IMPLEMENT FLAGLER SHUTTLE (RECOMMENDATION 7.2.29)

The recommendation proposed a shuttle system designed to serve the corridor between Biscayne Boulevard (SR 5/US-1) and the Miami-Dade Cultural Center on SW 1st Avenue, primarily catering to Downtown Miami's workforce and visitors. The envisioned shuttle will utilize electric buses, building on the success of similar systems that had been implemented in Miami Beach at the time.

Status: A Flagler shuttle, as envisioned in the 2003 recommendation was not implemented in the study area.

PROVIDE A PORT BOULEVARD U-TURN (RECOMMENDATION 7.2.30)

At the time of the original study, the Kaseya Center and Bayside Marketplace shared a common challenge related to access from Port Boulevard. Recognizing their interaction, there was a desire to establish a direct vehicular connection between the two sites. A connecting roadway along Biscayne Bay was proposed under the Port Boulevard Bridge, with the goal of providing continuity between the frontage road on the south side of Port Boulevard (adjacent to Bayside Marketplace) and the frontage road on the north side (adjacent to the Kaseya Center).

Status: While the Port Boulevard U-Turn was not developed and is not programmed in the 2045 LRTP, the PortMiami Tunnel opened in 2014 and includes three key components for improved transportation:

1. Tunnel connection linking Watson Island and PortMiami (Dodge Island)
2. Connections to the PortMiami roadway system
3. Widening of the MacArthur Causeway bridge

CREATE A SHUTTLE SYSTEM FOR THE BRICKELL RESIDENTIAL AREA (FROM 13TH ROAD TO 26TH ROAD) (RECOMMENDATION 7.2.31)

A transit shuttle had been introduced in the Brickell area by the time the 2003 study was prepared. The Brickell shuttle primarily served commercial areas, leaving a missing connection for many residents in the southern areas, who often work in the Brickell Business District or in Downtown Miami. To address this gap, a proposed residential Brickell transit shuttle was recommended in 2003 for the Brickell Avenue (SR 5/US-1) corridor from SE 14th Street to SE 26th Road. The proposed shuttle would seamlessly connect to the existing commercial area shuttle route without compromising frequency or convenience for users.

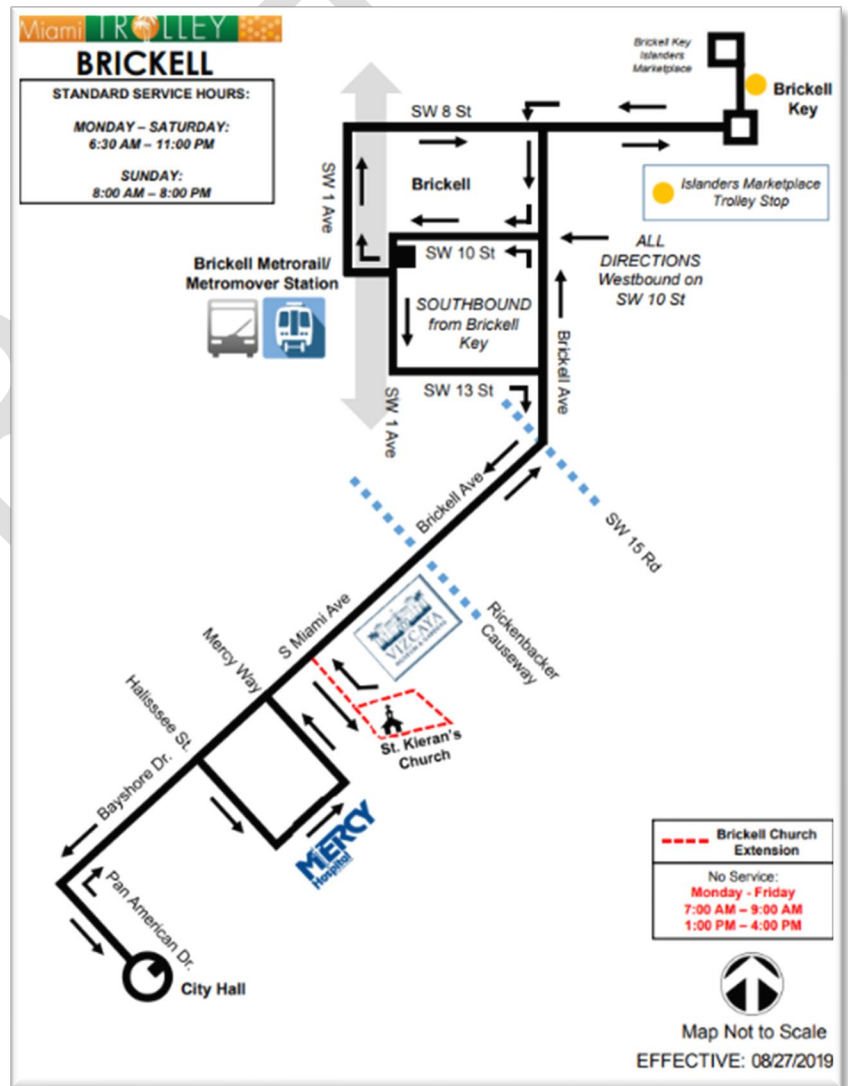


Figure 7. City of Miami Brickell route map

Status: Completed. The City of Miami Trolley Brickell Route, from the City of Miami City Hall to Brickell Key has been implemented. The route map for the Brickell trolley is depicted in Figure 7. In fiscal year 2022-2023, the Brickell trolley route had a total ridership of 356,348 people.

IMPLEMENT TRAFFIC CALMING ALTERNATIVES THROUGH BRICKELL RESIDENTIAL AREAS (RECOMMENDATION 7.2.33)

The 2003 recommendation looked to provide traffic calming improvements in the Brickell area aimed at enhancing the quality of life and user-friendliness of streets and sidewalks for residents. At the time, the primary concern revolved around the high volume and speed of commuter traffic in residential zones. To address this, the recommendation included the implementation of roundabouts, chokers, curb extensions, and landscaping. The specific treatments and locations were to be determined through collaboration with the local community.

Status: Completed and ongoing as needed. Traffic calming measures, like roundabouts, have been installed on SW 15th Road, including at the intersection with S. Miami Avenue. Figure 8 illustrates a more recent traffic calming project—a roundabout at the intersection of SW 3rd Avenue, SW 13th Street, and SW 15th Road.

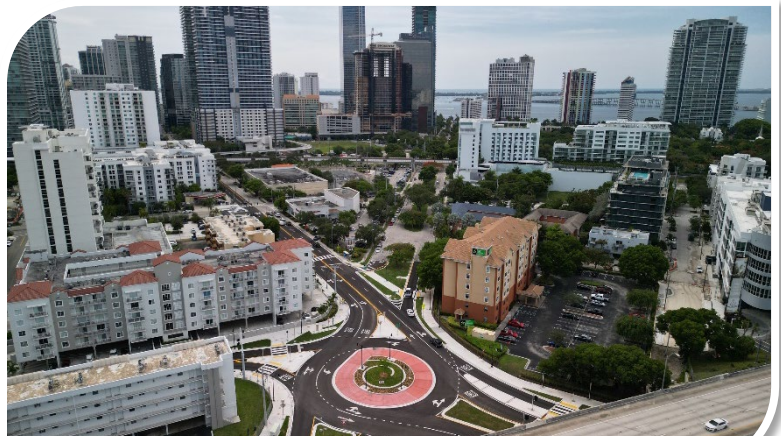


Figure 8. Roundabout construction at the intersection of SW 3 Avenue, SW 13 Street, and SW 15 Road as of January 2023.

IMPROVE NE/NW 14 STREET FROM I-95 TO BISCAYNE BOULEVARD (SR 5/US-1) (RECOMMENDATION 7.2.37)

This recommendation focused on enhancing NE/NW 14th Street, which at the time of the study, was noted as offering limited circulation and inefficient east-west travel in the area. The recommendation envisioned transforming NE/NW 14th Street into a four-lane undivided facility from east of I-95 to Biscayne Boulevard (SR 5/US-1). Significant intersections would be equipped with coordinated signalization, with a priority for east-west traffic. This improvement will provide rapid vehicular access to the proposed NW 1st Avenue corridor from Biscayne Boulevard (SR 5/US-1) and the Venetian Causeway, contributing to more efficient transportation in the region.

Status: The recommendation was not implemented and is not programmed in the 2045 LRTP. However, unprotected bicycle lanes were installed on NE/NW 14th Street from NW 7th Avenue to NE 1st Avenue.

PROVIDE A BRICKELL KEY WATER TAXI (RECOMMENDATION 7.2.39)

The study area faces natural barriers, including water bodies such as islands to the east and the Miami River through the center. Water-borne transportation offers an effective means to overcome these barriers and provide an alternative mode of travel. Fisher Island, for instance, relies on a ferry service for round-the-clock transportation to and from the island. Water taxi services, operated for profit, have proven successful in other cities like Fort Lauderdale. The 2003 recommendations included establishing a water taxi or ferry connection between Brickell Key and the Central Business District. The ideal funding model for such a service would involve self-supporting fares managed by a private company, or it could be subsidized through cooperative efforts by local businesses looking to enhance convenience for their customers, workers, and visitors.

Status: Programmed in the 2045 LRTP. Water Borne Transit Services in Biscayne Bay aims to offer alternatives to local commuters while also providing appealing mobility choices for tourists and visitors. It is an unfunded project with a cost of \$10 million (2018).

PROVIDE A WATER TAXI/FERRY TO WATSON ISLAND (RECOMMENDATION 7.2.40)

Watson Island features attractions like Jungle Island, a children's museum, yacht marinas, restaurants, and event spaces. Access to Watson Island primarily relies on the MacArthur Causeway by car, with several Metrobus routes serving the route to and from Miami Beach. At the time of the original study, the Miami-Dade Transportation Master Plan (MDTMP) already included recommendations for a light-rail system connecting Downtown Miami and south Miami Beach. As a temporary, high-frequency transit solution, a conventional transit shuttle service was contemplated until the implementation of the light-rail system. A water-borne connection through a water taxi service was suggested in the 2003 study to enhance accessibility and strengthen the link between Watson Island and Downtown Miami. Possible connections included Bayside Marketplace Marina, the PortMiami, Omni/Overtown/Park West, Bicentennial Park, Bayfront Park, Brickell Key, and other destinations along the Miami River.

Status: Waterborne Transit Services in Biscayne Bay are programmed in the 2045 LRTP. It remains an unfunded project with a cost of \$10 million (2018).

PROVIDE A PARTIAL I-95 INTERCHANGE AT NW 29TH STREET (RECOMMENDATION 7.2.41)

The 2003 study recognized the Wynwood area and the southern end of the Design District encountered difficulties in accessing I-195 due to partial interchanges at Miami Avenue and Biscayne Boulevard (SR 5/US-1), causing frustration for residents and businesses. The recommendation suggested creating a more direct connection through the construction of a frontage road or a collector-distributor road system adjacent to the I-95 lanes. A potential interchange was recommended around NW 29th Street.

Status: The recommendation was not implemented and is not included in the 2045 LRTP. This area was location is unsuitable for an interchange based on the minimum spacing criteria between interchanges. An FDOT PD&E study for the I-195 corridor is currently underway, evaluating the possibility of an interchange in the vicinity of the one proposed by the recommendation.

2003 PHASE II RECOMMENDATIONS: IMPLEMENTATION BY 2015

EXTEND BAYLINK LIGHT RAIL TO FLAGLER STREET (RECOMMENDATION 7.2.3)

Downtown Miami and Miami Beach are crucial economic centers but currently lack enhanced transit options between them. The recommendation to extend the Baylink Light Rail to Flagler Street aimed at connecting Downtown Miami's hotels and tourist attractions to the Miami Beach Convention Center and the beaches, as well as linking Miami Beach with the broader Miami-Dade County transit system and to the Miami International Airport (MIA). The proposed alignment under the original recommendation extends the Baylink system from South Beach along the causeway, down Biscayne Boulevard (SR 5/US-1), and westward to connect with the Government Center Metrorail/Metromover Station. The preferred alignment for the final leg was along or near Flagler Street, aligning with the objectives of the proposed Flagler Street shuttle recommendation, which is a high priority in the Miami-Dade Transit Master Plan.

Status: Programmed in the 2045 LRTP. The SMART Plan Beach Corridor, formerly known as Baylink, serves as a crucial connection between Miami Beach and the mainland. It will seamlessly integrate with existing and proposed transit services on both sides of Biscayne Bay. Currently, Metrorail services link MIA and Downtown Miami, and this SMART

Plan Corridor will provide the essential link to popular visitor destinations. Figure 9 illustrates the route map for the SMART Plan Beach Corridor.



Figure 9. SMART Plan Beach Corridor Route

BUILD A NEW TUNNEL UNDER THE MIAMI RIVER AT SW 1 AVENUE (RECOMMENDATION 7.2.15)

The recommendation suggested the construction of a tunnel under the Miami River at SW 1st Avenue to combat the transportation challenges presented by the Miami River. Preliminary feasibility studies supported the recommendation, with the alignment near SW 1st Avenue seen as highly beneficial and worth pursuing. The Miami River remains home to numerous marine-oriented businesses, making it expensive to maintain vessel clearances. Options like high-level bridges, with their substantial vertical clearances, come with high costs and can impact the local community. Drawbridges, while a more cost-effective option, entail operational expenses and can disrupt traffic flow, as evidenced by the Brickell Bridge, leading to traffic congestion in Downtown Miami and the Brickell area.

Status: *The recommendation to build a new tunnel at SW 1st Avenue was not implemented. The City of Miami/FDOT Miami River Tunnel project from SE 12th Street to NE 4th Street is included in the 2045 LRTP as an unfunded initiative. The total project cost was estimated at \$1,168 billion in 2018.*

WIDEN AND EXTEND NW 1ST AVENUE (RECOMMENDATION 7.2.20)

The recommendation focused on widening and extending NW 1st Avenue to a four-lane divided arterial from NW 10th Street to NW 14th Street to enhance circulation within Downtown Miami and improve north-south traffic flow. It also included extending the roadway south from SW 1st Street to the recommended tunnel under the Miami River. The alignment will be "straightened" between NW 10th Street and NW 14th Street to encourage corridor use. To facilitate this project, the removal of the I-95 Distributor ramps is necessary, with their conversion into a grand boulevard to improve traffic flow and connectivity in the area.

Status: *This recommendation was not implemented and is not programmed in the 2045 LRTP. The roadway segment on NW 1st Avenue from NW 10th Street to NW 14th Street remains a two-lane street providing north and south access within the study area. Improvements require further analysis for future implementation.*

EXTEND SE 1ST AVENUE FROM SE 8TH STREET TO SE 5TH STREET (RECOMMENDATION 7.2.21).

The proposal recommended extending SE 1st Avenue from SE 8th Street to SE 5th Street in the Brickell area. Circulation between and within city blocks in the area was noted to be challenging at the time of the original study, and the recommended extension would enhance street continuity north of SE 8th Street, offering an alternate route for several buildings to the south. This extension would also help alleviate traffic congestion on Brickell Avenue (SR 5/US-1) and simplify circulation for buildings both to the north and south of SE 8th Street. The extension was proposed to be installed within the Metromover rights-of-way, under the guideway, between SE 5th Street and SE 8th Street, with additional right-of-way required at the southern end of the extension where it would connect to SE 8 Street.

Status: *The recommendation was not implemented and is not programmed in the 2045 LRTP. Improvements to the area have included the development of the Miami River Greenway on SE 1st Avenue between the south river bank and SE 5th Street and a connection to a sidewalk running under the guideway of the Metromover from SE 5th Street to SE 8th Street.*

REMOVE I-95 DISTRIBUTOR RAMPS AND PROVIDE A "GRAND BOULEVARD" ON SOUTH 3RD STREET (RECOMMENDATION 7.2.24)

The "Grand Boulevard" recommendation for Downtown Miami aimed to eliminate the barrier created by the I-95 distributor ramps, encouraging integrated development near the Miami River, enhancing the area's visual appeal, creating an impressive boulevard entrance to Downtown Miami, and restoring a traditional, pedestrian-friendly environment. While it was found feasible in prior studies, it was not included as a project recommendation in past LRTPs.

Status: *The recommendation was not implemented and has not been programmed in the 2045 LRTP. Improvements require further analysis for future implementation.*

BUILD A NORTHBOUND I-95 ON-RAMP AT NW 6TH STREET TO PROVIDE ACCESS TO WESTBOUND SR 836/DOLPHIN EXPRESSWAY (RECOMMENDATION 7.2.36)

Access to SR 836/Dolphin Expressway from Downtown Miami's core can be challenging, as SR 836/Dolphin Expressway continues to serve as the main freeway route to west Miami-Dade County. At the time of the original study, access to SR 836/Dolphin Expressway was only possible through the I-95 Distributor Ramps at the south end of Downtown Miami's core. To address this issue, a recommendation was provided to build a new left entrance on-ramp to westbound SR 836/Dolphin Expressway, commencing at NW 6 Street. As of the 2003 MDTMP, funding for design and construction was included in the Transportation Improvement Program (TIP).

Status: *Access to SR 836/Dolphin Expressway is provided through the on-ramp on NE 1st Avenue. The original 2003 recommendation was not implemented and is not programmed in the 2045 LRTP. Improvements require further analysis for future implementation.*

CONSTRUCT AN INTERCHANGE ON I-95 AT NW 14TH STREET (RECOMMENDATION 7.2.42)

At the time of the 2003 study, residents and businesses north of I-395 and east of I-95 were recognized for needing a more direct connection to I-95. The recommendation proposed a new I-95 interchange at NW 14th Street, offering a direct connection to and from I-95 for the Omni/Overtown/Park West area. This interchange aligned with the recommendations proposed for NW 14th Street and NW 1st Avenue, aiming to improve accessibility and connectivity in the region.

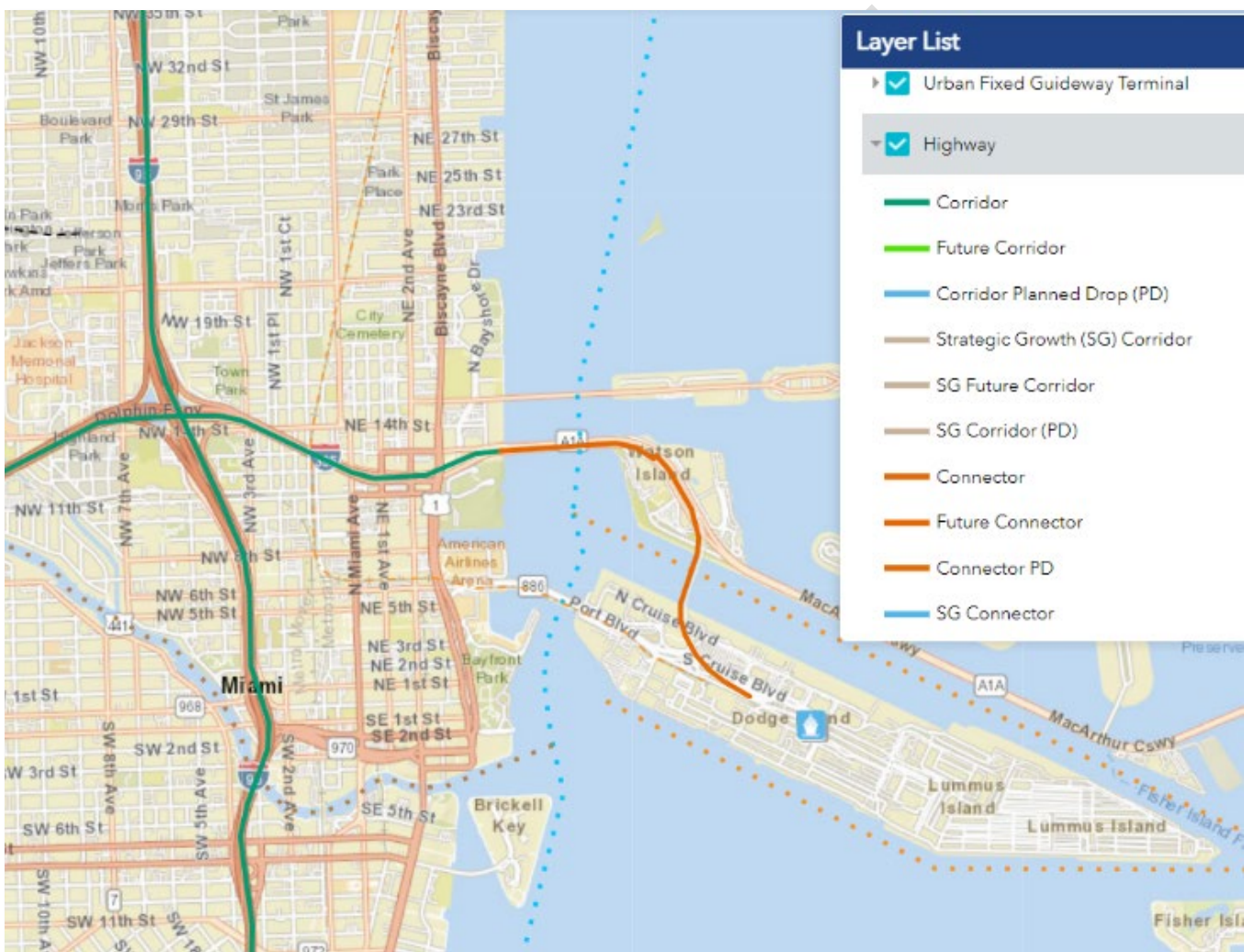
Status: *Completed. An interchange was developed at this location, connecting I-95 and I-395.*

2003 PHASE III RECOMMENDATIONS: IMPLEMENTATION BY 2020

IMPROVE NE 1ST AVENUE AND NE 2ND AVENUE FOR TRUCK TRAFFIC. (RECOMMENDATION 7.2.17)

An interim traffic operations improvement project was recommended in 2003 to enhance the efficient and safe movement of trucks through Downtown Miami until completion of the PortMiami Tunnel. Due to the location of the PortMiami entrance within the downtown core, heavy truck traffic in the area was inevitable. The improvements under the recommendation focused on enhancing turning radius and curb returns along NE 2nd Avenue and NE 1st Avenue and providing access to I-95 and SR 836/Dolphin Expressway.

Status: The recommendation is not programmed in the 2045 LRTP. Today, NE 5th Street and NE 6th Street serve as surface street options to access Port Boulevard. Future recommendations for truck traffic shall consider the newer routes highlighted in light green and orange in Figure 10.



PROVIDE A TRUCK-ONLY TUNNEL FROM THE SEAPORT TO WATSON ISLAND (RECOMMENDATION 7.2.19)

This recommendation suggested constructing a truck-only tunnel connecting PortMiami to Watson Island. This tunnel was envisioned to provide several advantages, including easing truck access to and from the port, enhancing vehicular access

Figure 10. FDOT Strategic Intermodal System, Highways, accessed 2023.

capacity, and relocating port-related truck traffic away from Downtown Miami streets. The redirection of trucks to the tunnel would also lead to a more pleasant pedestrian environment while also decreasing noise and emissions in the Downtown Miami area. At the time of the original recommendation, the project was part of the LRTP (Long-Range Transportation Plan) and lacked funding.

Status: Completed. Opened in 2014, the Port of Miami Tunnel provides truck and standard vehicle access directly from I-395 to the port. However, truck access to Port Boulevard via NE 5th Street and NE 6th Street remains necessary as these roads provide an alternate route when the tunnel is closed.

EXTEND METRORAIL TO KASEYA CENTER (FORMERLY KNOWN AS AMERICAN AIRLINE ARENA) AND SEAPORT (RECOMMENDATION 7.2.23)

In 2003, it was recognized Downtown Miami's full potential relied on significantly increased mass transit usage. Today, the absence of an East-West Metrorail line still hinders direct access to Downtown from the western suburbs. The recommendation to extend the Metrorail along this East-West corridor was deemed crucial to link suburbs, Miami International Airport (MIA), Florida International University (FIU), and other important areas, as well as enhance accessibility for both residents and businesses in Downtown Miami. Priority connections in the original recommendation included the Government Center Station to integrate the line with the rest of the system properly, The Kaseya Center for high-capacity event service, and the PortMiami to serve employees and visitors efficiently, relieve congestion at the port entrance, and enhance the connection to Downtown Miami.

Status: Programmed in the 2045 LRTP as a partially funded East-West Corridor Rapid Transit project connecting western Miami-Dade County to Downtown Miami via the Miami Intermodal Center (MIC). The Rapid Transit system connects users to the MIC, providing Metrorail access to the Government Center Station and Downtown Miami.

EXTEND THE METROMOVER THROUGH THE BRICKELL FINANCIAL DISTRICT (RECOMMENDATION 7.2.27)

Metromover currently serves the Brickell Financial District, yet its alignment is situated one block west of Brickell Avenue (SR 5/US-1). However, most of the major buildings and workers are on the east side of Brickell Avenue (SR 5/US-1), requiring Metromover users to walk a block and cross the bustling Brickell Avenue (SR 5/US-1). The proposed extension aimed to establish a two-way Metromover loop on the east side of Brickell, significantly improving coverage and accessibility. This extension is designed to reduce walking distances and eliminate the need to cross Brickell Avenue (SR 5/US-1), enhancing the system's overall usability for commuters.

Status: Programmed in the 2045 LRTP as an unfunded project with a budget of \$268 million (2018). The Metromover Brickell Loop Extension at the Financial District Metromover Station is a project aimed at enhancing regional and local connectivity. It seeks to improve the speed, reliability, comfort, and overall convenience of transit services in the area.

DEPRESS I-395 (RECOMMENDATION 7.2.28)

The Omni/Overtown/Park West area in Downtown Miami has historically been disconnected from Downtown Miami's core due to the presence of I-395. The 2003 study recognized the growing need to integrate these areas with the central business district, with recommendations driven by urban design, aesthetics, and pedestrian circulation, particularly near the Arsht Performing Arts Center. Two primary concepts were proposed in the 2003 study to address this issue: operational improvements to the elevated freeway section (developed by FDOT) and depressing I-395 to create an at-grade grand boulevard (developed by a group of individuals with interest in the area). The latter concept, involving the depression of I-395 and the creation of an at-grade grand boulevard, aligned more closely with the goals and concerns of area residents, workers, businesses, and visitors.

Status: A combination of the two primary concepts, including operational improvements and an at-grade pedestrian boulevard, was developed and is currently underway. The Underdeck project, illustrated in Figure 11, is a collaborative endeavor between the Florida Department of Transportation (FDOT) and the City of Miami, and it is supported by a federal grant it is designed as a 33-acre multi-purpose green space connecting Overtown in the West to Biscayne Bay in the East. The Underdeck open space will be located under the reconstructed I-395, and it will feature various outdoor amenities, such as an amphitheater, event lawn, community plaza, children's play area, dog play area, multi-use court, and a water feature to create an at-grade, east-west pedestrian boulevard connecting Gibson Park in Overtown with Maurice A. Ferré Park on the bay.



Figure 11. Underdeck by the Numbers, Underdeck Committee Report

PROVIDE A TRANSIT GREENWAY (RECOMMENDATION 7.2.32)

Transit greenways are a low-speed conveyance system designed to complement pedestrian travel. These systems offer continuous circulation, enabling passengers to board or disembark at their convenience without frequent stops. A suitable location for implementing this technology was recommended for the Miami-Dade College Wolfson Campus, with a focus on NE 4th Street. The proposed greenway would extend from NE 1st Avenue to Biscayne Blvd (SR 5/US-1) and align with Bayside Marketplace. It was recommended that this project be included in the Long-Range Transportation Plan (LRTP), and there may be an opportunity to seek a demonstration project grant due to its innovative nature.

Status: The recommendation was not implemented and is not programmed in the 2045 LRTP. Improvements require further analysis for future implementation.

EXTEND METROMOVER INTO WYNWOOD (RECOMMENDATION 7.2.34)

The original Downtown study recognized the Wynwood area required additional transit service to meet its growing needs. At the time of the 2003 study, a proposed shuttle system for Wynwood was being considered as a precursor to the recommended Metromover extension to improve accessibility and convenience for residents and visitors. The envisioned loop alignment for the shuttle would expand coverage, reduce walking distances, and enhance convenience for passengers. The loop alignment would traverse the NW 2nd Avenue and Biscayne Boulevard (SR 5/US-1) corridors, ensuring that key areas were well-connected within Wynwood.

Status: Not programmed in the 2045 LRTP. Improvements require further analysis for future implementation. However, a Metromover Omni Extension from the School Board Station is included as an unfunded project in the LRTP with a cost of \$455.130 million (2018)

EXTEND THE METROMOVER TO SE/SW 26TH ROAD (RECOMMENDATION 7.2.35)

The recommendation to extend the Metromover system in the Brickell residential area south of SE/SW 14th Street was driven by the same reasons as the recommendation for the need for a shuttle system. Metromover was chosen due to its superior capacity and reliability in serving this area.

Status: The recommendation was not implemented. The City of Miami trolley service helps to fill the gap by connecting the residential areas to commercial zones. The recommendation is not programmed in the 2045 LRTP. Improvements require further analysis for future implementation.

PROVIDE COMMUTER RAIL TO BROWARD COUNTY (RECOMMENDATION 7.2.38)

At the time of the 2003 study, the Tri-Rail system lacked a direct and convenient connection to Downtown Miami, terminating near Miami International Airport (MIA). The only rail link to Downtown Miami required a cumbersome transfer from Tri-Rail to Metrorail at the Metrorail Transfer Station on NW 79th Street/E 25th Street or at the MIC at the MIA Tri-Rail Station. Several alignment options, including repurposing an existing railroad corridor, were under consideration at the time of the study. Regardless of the corridor's ultimate use, the original study identified the development of a significant commuter connection as a top priority.

Status: Completed. Downtown Miami is connected to Broward and Palm Beach counties as well as the Orlando International Airport (MCO) via the Brightline express train service along the FEC Railway departing from MiamiCentral Station in Downtown Miami, which serves as the terminus for passenger rail services. This privately operated express train service provides rail connections between Miami, Aventura, Fort Lauderdale, Boca Raton, West Palm Beach, and MCO. Additionally, the South Florida Regional Transportation Authority (SFRTA) extended Tri-Rail commuter train service to MiamiCentral Station, which began service in January 2024.

DEPRESS I-95 (RECOMMENDATION 7.2.43)

The recommendation to depress I-95 (lowering it below ground) would address the challenges posed by freeways in Downtown Miami, aiming to create a more pedestrian-friendly, aesthetically pleasing, and less noisy environment. The proposal suggested depressing I-95 north of the SR 836/I-395 Interchange, allowing the I-95 mainline to run underground while constructing frontage roads at ground level to connect with the street grid of Downtown Miami. The plan also included a tunnel for the I-95 mainline lanes, replacing the high-level bridge over the Miami River. The creation of frontage road systems and the reconstruction of existing interchanges north of its terminus (SR-5/US-1) were also part of the vision. This infrastructure investment was deemed essential to facilitate Downtown Miami's growth and its role as a global center of commerce, with a focus on promoting transit use and enhancing the pedestrian environment.

Status: The recommendation was not implemented and is not programmed in the 2045 LRTP. Recent analysis by FDOT for improvements to I-95 does not include any alternatives from the planning study that involve depressing I-95.

COMPARISON OF 2000 AND 2020 EMPLOYMENT AND HOUSING PROJECTIONS

The following section evaluates the 2020 scenario employment and housing projections, as presented in the 2003 Downtown Miami Transportation Master Plan, in comparison with the 2020 Census Data.

The process of projecting land use in Downtown Miami for future scenarios, as outlined in the 2003 master planning effort, involved a comprehensive methodology. It commenced with an inventory and analysis of existing and approved projects in the area, coupled with an evaluation of trends and development potential in specific sub-areas. Foundational data included existing county and downtown development patterns, recent trends, local area dynamics, city regulations, policies, and relevant documents such as the Miami Comprehensive Neighborhood Plan and Downtown Master Plan.

The Baseline Scenario's initial projections were derived from values extracted from transportation models and validated against recent development approvals. The Land Use Committee then conducted further analysis, leading to the formulation of land use forecasts for Enhanced and Visionary development scenarios. These forecasts considered parcel-level development potential within sub-areas. Moreover, housing and employment growth forecasts for 2020 were refined, with adjustments made based on potential development and revitalization opportunities. Reasonableness checks were applied to dwelling unit types, sizes, and socioeconomic characteristics of residents in the final forecasts.

The three development scenarios for the Downtown Miami area by 2020 are shown in Table 5 below.

Table 5: 2003 Development Scenarios

	2020 Baseline	2020 Enhanced	2020 Visionary
Employees	18,000	30,000	48,000
Dwelling Units	15,000	23,000	34,000

⁴ Source

The 2020 projections are categorized into three scenarios: The conservative baseline envisions 18,000 more employees and 15,000 more dwelling units. The enhanced scenario adopts a more aggressive stance, anticipating 30,000 additional employees and 23,000 more dwelling units. Lastly, the visionary outlook is highly optimistic, predicting 48,000 extra employees and 34,000 more dwelling units.

The report's update involves evaluating the precision of the 2020 employment and housing projections by comparing them with the 2020 Census Data. This assessment focuses on data from 38 specific census tracts within the study area. Figure 12 illustrates the map census tracts used to perform the assessment and highlights the boundaries of the study area (I-95 to the east, I-195 to the north, SW 26th Road to the South, and the Biscayne Bay to the west). The study area, as defined by census tracts, utilized 2020 US Census data to comprehensively analyze total housing. The results revealed that housing development surpassed the forecasts of all three models. According to the 2020 US Census count, approximately 70,805 housing units are within the study area. Table 6 provides a comparison of the three development scenarios for housing compared to the results of the 2020 census.

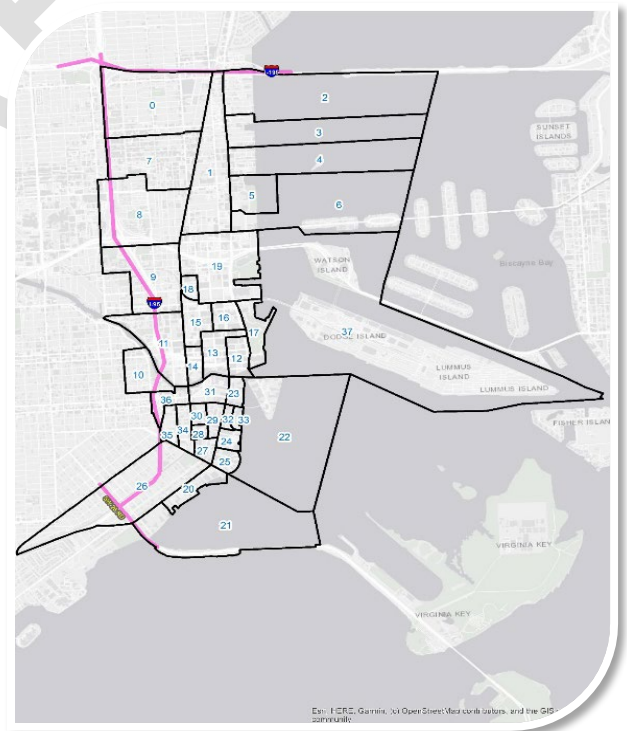


Figure 12. Map of Census Block Groups Analyzed

Table 6: Housing

⁴ 2003 Miami Downtown Transportation Master Plan

Development Scenarios	Total Housing	Difference
1999	8,200	62,605
2020 Baseline	23,200	47,605
2020 Enhanced	31,200	39,605
2020 Visionary	41,800	29,005
2020 Census	70,805	-

⁵ Source

Table 7: Employment

Development Scenarios	Total Employment	Difference
1999	116,000	73,165
2020 Baseline	134,000	55,165
2020 Enhanced	146,000	43,165
2020 Visionary	164,000	25,165
2020 Census	189,165	-

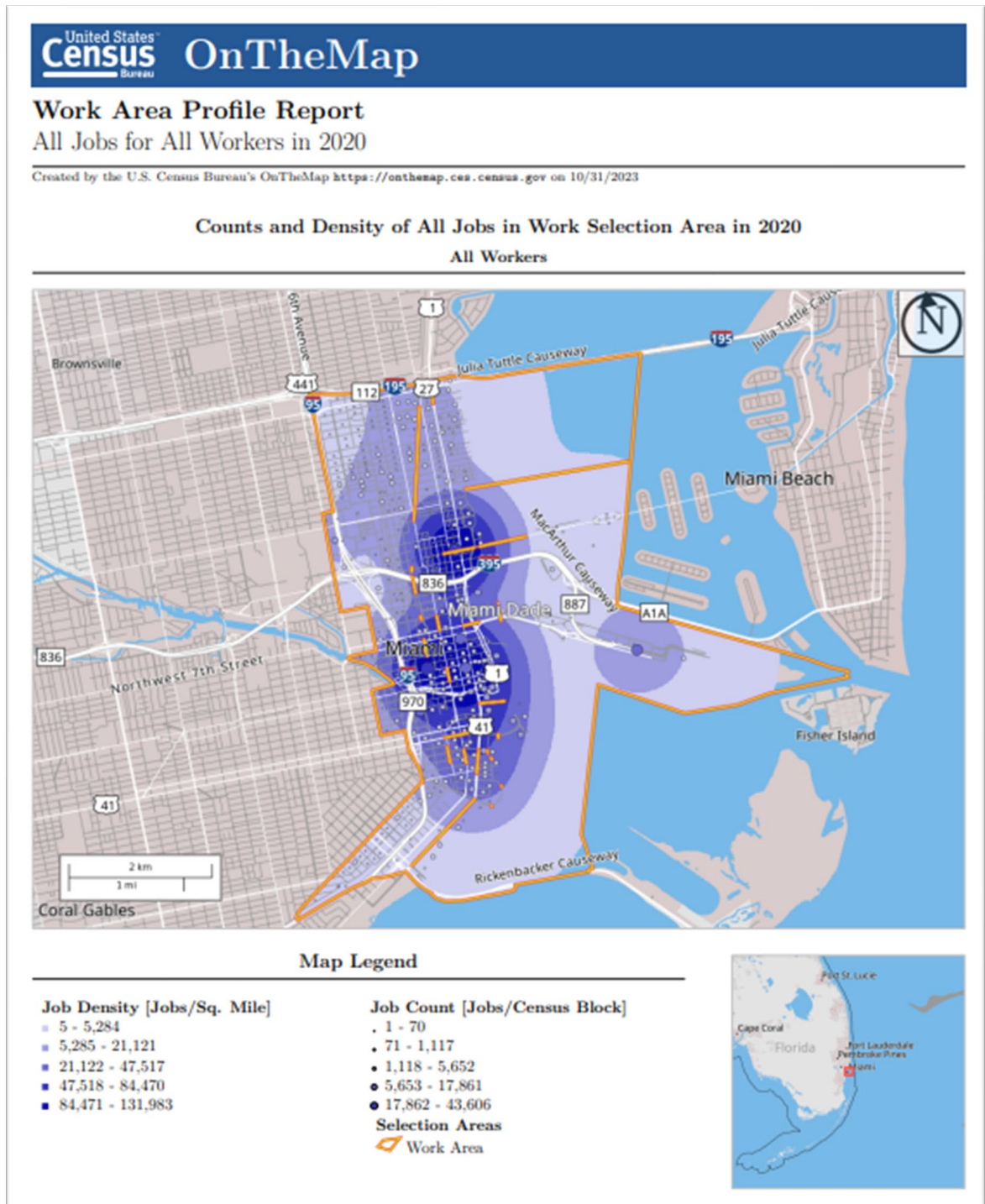
⁶ Source

The work area profile for the study area in 2020 was established by employing the US Census on the Map, illustrated in Figure 13. This profile, utilizing the same census tracts as the housing analysis, identified a total of 189,165 jobs within the study area. The findings reveal that total employment closely matched the forecast, with only a 15% variation from the Visionary scenario. Table 7 summarizes the development scenarios against the 2020 employment numbers. In contrast, the housing forecast significantly underestimated the demand for this type of development, with an approximately 41% variation from the Housing Visionary scenario.

⁵ 2003 Miami Downtown Transportation Master Plan, and the U.S. Census Bureau. "HOUSING UNITS." *Decennial Census, DEC Demographic and Housing Characteristics, Table H1, 2020*

⁶ 2003 Miami Downtown Transportation Master Plan, and the U.S. Census Bureau. 2023. LEHD Origin-Destination Employment Statistics (2002-2021) [computer file]. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program [distributor], accessed at <https://onthemap.ces.census.gov>. LODS 8.1 [version]

Figure 13. Work Area Profile Report for Study Area



LEGACY OF REDLINING AND SOCIAL EQUITY

The legacy of segregation remains persistent in today’s Miami. The first practices of segregation in Miami can be traced back to the founding of the city in the 1880s, where an enclave of black settlers from the Bahamas settled and helped develop Coconut Grove. The black settlers were even part of the founding charter vote in Miami.

By 1896, by mandate of the state charter, a designated colored section of the city was required. In Miami’s Colored Town, that area was defined by being west of the Flagler railroad tracks and north of the Miami River. Up to the 1930’s Colored Town and Coconut Grove remained the only two places in Miami where black people could live.

Colored Town or Historic Overtown saw a great boon due to the railroad and the hospitality industry that it supported. Many significant African-American cultural figures like Cab Calloway, Zora Neale Hurston, Sam Cooke, Ella Fitzgerald, Nat King Cole visited, and NW 2 Avenue was soon known as “Little Broadway”. Historic Overtown thrived into the 1940s as a center of culture and commerce for the black community, as seen in Figure 14.

Disinvestment in Historic Overtown and Coconut Grove’s black communities began with the housing projects introduced under the New Deal programs. In efforts to relocate African Americans to the outskirts of the City, in 1937 the Liberty Square project in what is now Liberty City was developed. The 200-housing unit property was intended to serve middle-



Figure 14. Little Broadway in Overtown.

class black families and a small suburb developed in the area. Additional disfranchisement of the black community came through the practice of redlining. Redlining consisted of maps developed by the Homeowners Loan Corporation to grade the areas in the city from an ‘A’ to a ‘D’ based on factors like amenities, zoning, housing stock, and racial makeup.

The redlining map for Miami is shown in Figure 15. ‘A’-graded areas (shown in green) were seen as "desirable" and were extremely wealthy areas. Parts of Miami Beach and Coral Gables are examples of A-grade communities. These locations had no trouble receiving housing loans. ‘D’-graded areas (shown in red) were deemed "hazardous" and were characterized by a large

minority or poor white population. These places often had poor sanitation, industrial land uses, incinerators, railroads, and trash dumps nearby. Areas with ‘C’ and ‘D’ neighborhoods had a slim chance of getting mortgage lenders to invest. An example of a D-graded community is Hialeah. Areas without color on the map were used as farmland or for commercial/industrial purposes. These practices from the 1930s still impact Miami-Dade neighborhoods today and create current health inequalities due to temperature and environmental differences.

During the 1950s and 1960s urban renewal of Downtown Miami, the construction of I-95 and then the I-395/SR 836 decimated the black enclave in Overtown. There was an almost 80% decline in the black population, with population numbers dwindling from 50,000 to 10,000 residents. The area became economically destitute and suffered from extreme crime and poverty well into the 1980s.

Redevelopment and reinvestment in the area during the 1990s and 2000s brought about transit-oriented development, revitalization of historic properties, and gentrification to Overtown. The area has seen significant development and remains predominately black. Efforts are ongoing to preserve Overtown's history and limit its residents' displacement.

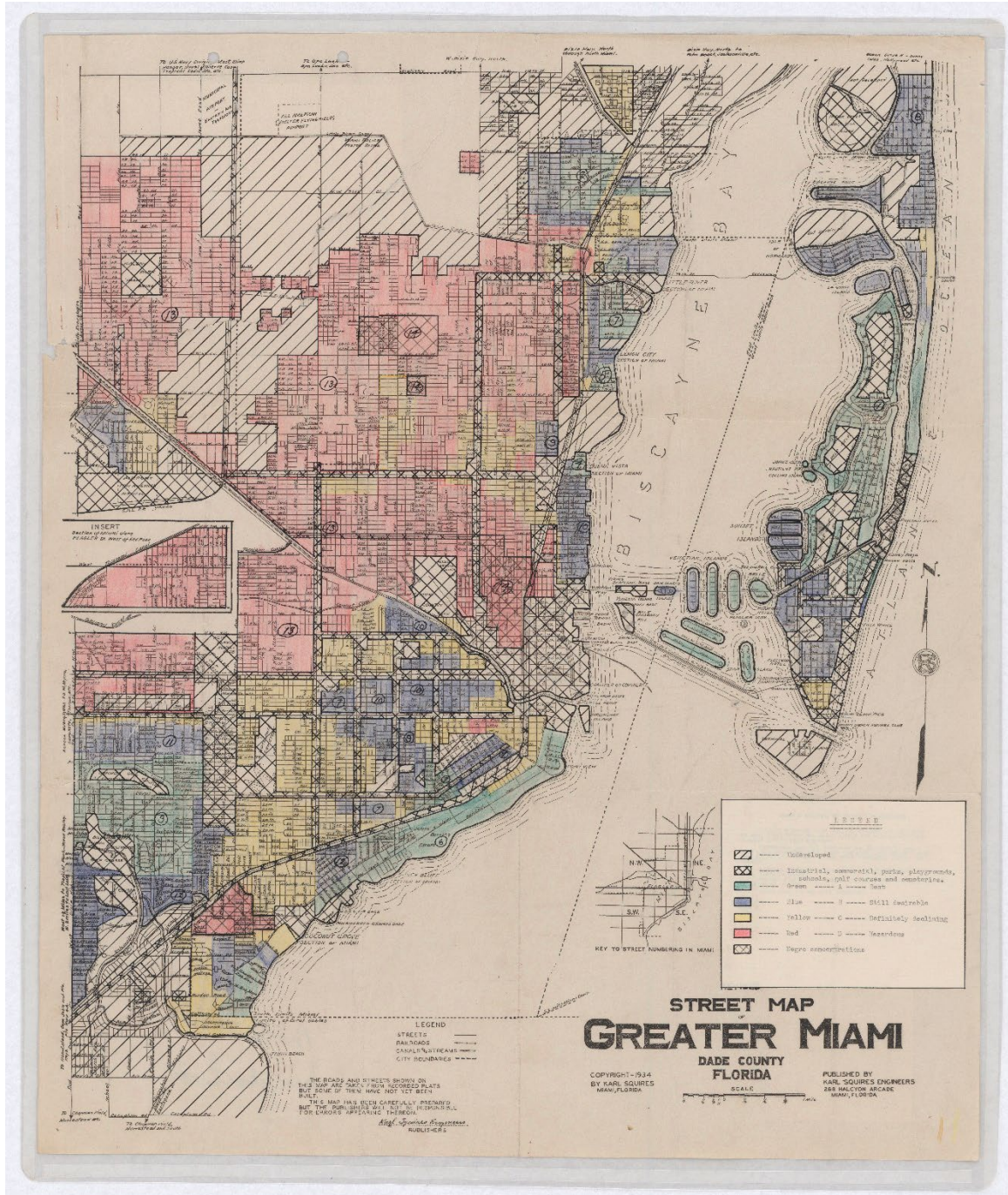


Figure 15. The Federal Home Loan Bank Board redlining map of Miami, Florida in 1934.

JUSTICE40 INITIATIVE

The Biden-Harris Administration created the Justice40 Initiative to confront and address decades of underinvestment in disadvantaged communities in the US. The initiative includes a series of changes to improve how the government ensures



Figure 16. Seven areas of federal investment are covered by the Justice40 Initiative. Link to the [USDOT Justice40 covered program list](#).

equitable distribution of the benefits of many federal programs. The categories of the Justice40 Initiative as seen in Figure 16, include climate change, clean energy and energy efficiency, clean transit, affordable and sustainable housing, training and workforce development, remediation and reduction of legacy pollution, and the development of critical clean water and wastewater infrastructure. Covered Federal investments include any grant or procurement spending, financing, staffing costs, or direct spending or benefits to

individuals for a covered program in a Justice40 category.

To assist with identifying disadvantaged communities, a Justice40 analysis was completed in which disadvantaged census tracts within or adjacent to the study area were identified. In Florida, there are a total of 1721 disadvantaged census tracts; of those, 340 are located within Miami Dade. Within or adjacent to the study area, 13 disadvantaged tracts were identified. Figure 17 shows the census tracts in relation to the local communities they cover. Tracts have been identified as disadvantaged across eight different categories:

Table 8 shows the disadvantaged census tracts identified within and adjacent to the study area. The neighborhoods that fell within the census tracts, as well as the disadvantaged categories for each census tract are provided. The majority of the census tracts identified as disadvantaged were located at the periphery of the study area and reflect the historic redlining maps, as areas further from the City’s demonstrated symptoms of the categories above.

Table 8. Justice40 Disadvantaged Census Tracts

Map ID	Census Tract ID	Neighborhoods	Total population	Disadvantaged Categories
1	12086002600	Midtown Old San Juan	7,025	1) Climate Change 2) Housing 3) Legacy pollution 4) Transportation 5) Water and wastewater 6) Workforce development
2	12086002300	Hadley Park	5,571	1) Health 2) Legacy pollution 3) Transportation 4) Water and wastewater 5) Workforce development
3	12086002202	Edison Buena Vista West Buena Vista Heights	6,020	1) Climate Change 2) Health 3) Legacy pollution 4) Transportation

Map ID	Census Tract ID	Neighborhoods	Total population	Disadvantaged Categories
				5) Water and wastewater 6) Workforce development
4	12086006601	East Little Havana The Roads	7,367	1) Climate Change 2) Housing 3) Transportation 4) Water and wastewater 5) Workforce development
5	12086003601	Culmer Lumus Park Government Center Riverfront	4,608	1) Climate Change 2) Health 3) Housing 4) Legacy pollution 5) Transportation 6) Water and wastewater 7) Workforce development
6	12086003001	Spring Garden Highland Park Civic Center	2,497	1) Climate Change 2) Health 3) Housing 4) Legacy pollution 5) Transportation 6) Water and wastewater 7) Workforce development
7	12086002800	Fashion District Wynwood Industrial District Old San Juan	1,083	1) Health 2) Housing 3) Legacy pollution 4) Transportation 5) Water and wastewater 6) Workforce development
8	12086002502	Santa Clara	3,667	1) Climate Change 2) Health 3) Housing 4) Legacy pollution 5) Transportation 6) Water and wastewater 7) Workforce development
9	12086002900	Santa Clara Allapattah Industrial District	6,506	1) Climate Change 2) Health 3) Housing 4) Legacy pollution 5) Transportation 6) Water and wastewater 7) Workforce development
10	12086003400	Culmer Southeast Overtown	2,756	1) Climate Change 2) Health 3) Housing 4) Legacy pollution 5) Transportation

Map ID	Census Tract ID	Neighborhoods	Total population	Disadvantaged Categories
				6) Water and wastewater 7) Workforce development
11	12086003100	Northeast Overtown Town Park Rainbow Village	5,115	1) Climate Change 2) Energy 3) Health 4) Housing 5) Legacy pollution 6) Transportation 7) Water and wastewater 8) Workforce development
12	12086006602	East Little Havana West Brickell	6,956	1) Climate Change 2) Housing 3) Legacy pollution 4) Transportation 5) Water and wastewater 6) Workforce development
13	12086003602	East Little Havana West Brickell Little Managua	6,933	1) Climate Change 2) Health 3) Housing 4) Legacy pollution 5) Transportation 6) Water and wastewater 7) Workforce development

⁷ Source

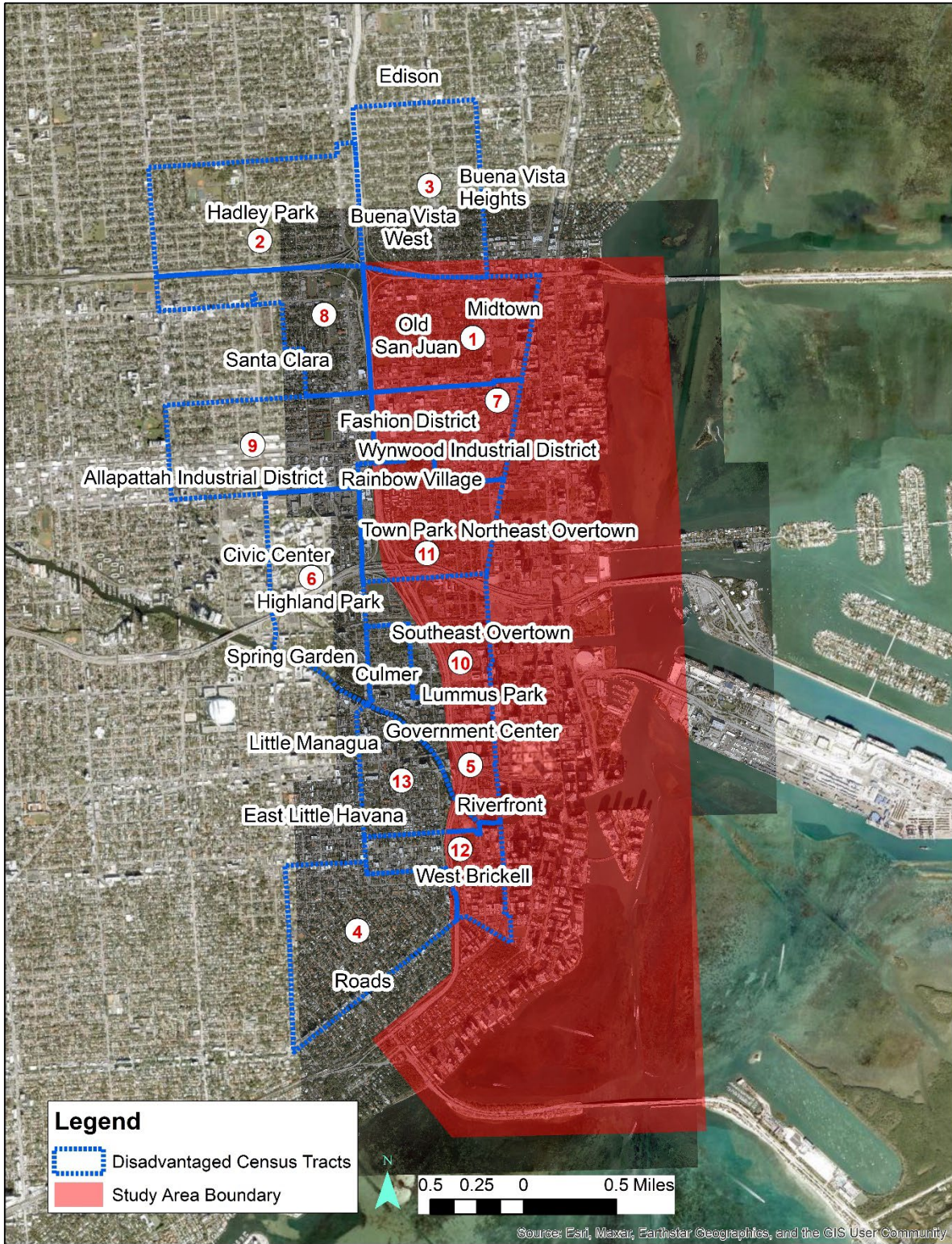


Figure 17. Map of Justice40 Disadvantaged Census Tracts within or adjacent to the study area.

COMPARISON OF 2003 PROJECTIONS & 2020 SERPM MODEL

The following task entails assessing the 2020 volumes of some of the major roadway segments specified in the earlier 2003 Downtown Master Plan (2003 MDTMP). A total of 40 locations were identified for the study team's evaluation of the 2020 conditions for the current master plan update. The task primarily includes the use of the original 2003 MDTMP 2020 projections being compared to the revised 2020 volumes, and developing a new set of 2020 projections.

As part of this task, the 2020 projections were developed based on the review of various data points, which are presented in Table 9. The table illustrates the 2003 MDTMP volumes, the Southeast Florida Regional Planning Model (SERPM) 2019 and 2015 volumes, and the 2019 and 2015 traffic counts as coded in the SERPM models. A thorough review of all these data points was conducted, and the final 2020 projections were developed based on reasonableness checks. Where necessary, the Florida Traffic Information Online (FTO) historic traffic counts were reviewed in conducting reasonableness checks.

The "Volume Location" column indicates the nearest points where the volumes are reported.

2020 Projections Methodology:

2020 projections are the final product of task 1.3. As described earlier, multiple data points were reviewed for developing these projections, and the most reasonable volumes were estimated. In the instances of missing 2019 counts, the SERPM 2019 volumes were used. Historical counts were cross-checked, especially when significant differences were observed between the 2003 MDTMP volumes and the updated SERPM counts and volumes.

Color Coding:

It was found that for some of the locations in 2003 MDTMP, the exact location of the data entry was not specified. For these corridors, the study team found reasons to include multiple entries for the same corridor, as the volumes are different among different segments. The yellow highlight in the table indicates the locations with multiple entries in the same corridor. As can be noted from the Table, the 2003 MDTMP volumes were specified in only one of the rows of these entries based on reasonableness checks.

In addition, the orange highlights were made to NW 2nd Avenue and NE 2nd Avenue entries, with the intention of highlighting significant differences in the current 2020 projections compared to the 2003 MDTMP volumes.

Comments Column:

The "Comments" column in the table provides a detailed rationale behind the use of separate estimates from those derived from 2019 counts.

Table 9. SEPRM 8 and SERPM 9 Volumes Comparison

Entry/Exit Station	2003 MDTMP FSUTMS Runs				Volume Location	SERPM9 2019		SERPM8 2015		2020 Projection	Comments
	1999 MUATS	2020 Baseline	2020 Enhanced	2020 Visionary		2019 Volumes	2019 Count	2015 Volumes	2015 Count		
1. Brickell Ave (South)	25,152	33,405	33,132	33,615	SE 25th Rd	18,953	27,000	1,322	26,500	27,000	
2. Miami Ave (South)	14,059	16,288	16,068	17,295	Halissee St	21,120	15,900	18,421	18,000	15,900	Historical counts reducing each Year


Entry/Exit Station	2003 MDTMP FSUTMS Runs				Volume Location	SERPM9 2019		SERPM8 2015		2020 Projection	Comments
	1999 MUATS	2020 Baseline	2020 Enhanced	2020 Visionary		2019 Volumes	2019 Count	2015 Volumes	2015 Count		
3. SW 3 AVE	32,693	30,488	32,292	39,271	SW 31st Ave	35,774	22,500	42,262	21,000	22,500	
4. I-95 off ramp/8 ST	952	3,474	2,629	13,366	8th St	6,918	4,700	6,506	4,400	4,700	
4. I-95 off ramp/8 ST					7th St	10,054	23,500	25,073	23,500	23,500	
5. I-95 on ramp/8 ST	11,849	11,311	10,884	32,885	Merge to outer lane	16,658	8,500	8,990	7,600	10,500	AADT in 2021 increased to 10500
5. I-95 on ramp/8 ST					Merge to inner lane	9,091	15,500	10,539	17,500	15,500	
5. I-95 on ramp/8 ST					South Bound	5,103	2,800	4,323	2,800	2,800	
6. SW 8 ST	25,707	30,778	27,341	23,212	SW 16th Ave	24,719	21,500	23,882	24,000	23,500	2020 AADT count is 23,500
7. SW 7 ST	13,768	11,116	20,124	17,141	SW 16th Ave	16,854	17,000	23,852	15,000	17,000	
8. SW 3 ST	6,442	9,145	9,208	21,958	SW 1st CT	3,334	-	3,051	-	3,334	
9. SW 2 ST	3,446	1,953	3,355	19,722	SE 1st Ave	14,070	-	18,587	-	14,070	
10. SW 1 ST	15,019	18,175	15,614	18,614	SW 24th Ave Entry	17,948	19,500	13,585	20,000	19,500	
11. Flagler St	17,822	16,296	17,777	32,362	NW 21st Ave	17,779	17,000	22,632	-	17,000	
12. NW 1 ST	12,443	18,175	23,480	23,270	NW 3rd Ave	6,315	17,000	9,310	20,000	17,000	
13. NW 3 AVE (NB)	5,897	5,204	8,591	20,954	NW 20th St	1,942	6,600	1,749	-	6,600	
14. I-95 off ramp	8,508	10,907	9,383	7,767	North Bound to CBD	6,272	15,000	4,135	19,500	15,000	
14. I-95 off ramp					South Bound to CBD	25,549	26,000	29,759	21,500	26,000	
15. NW 2 ST	6,787	9,755	11,373	13,890	N Miami Ave	1,098	6,700	2,064	6,600	6,700	
16. NW 3 ST	11,258	13,031	12,608	11,761	NW 2nd Ave	1,153	10,000	2,508	9,000	10,000	
17. NW 5 ST	10,008	9,595	10,687	14,775	NW 3rd Ave	13,766	7,200	21,102	10,500	9,000	2022 count from FTO website
18. NW 6 ST	10,118	10,714	12,231	9,681	NW 3rd Ave	10,455	4,000	18,739	4,600	5,500	2022 count from FTO website

Entry/Exit Station	2003 MDTMP FSUTMS Runs				Volume Location	SERPM9 2019		SERPM8 2015		2020 Projection	Comments
	1999 MUATS	2020 Baseline	2020 Enhanced	2020 Visionary		2019 Volumes	2019 Count	2015 Volumes	2015 Count		
19. NW 7 ST	7,509	6,981	6,663	12,752	S9-> NW 3rd Ave S8-> NE 2nd Ave	2,497	3,000	6,152	1,600	3,000	
20. NW 8 ST	11,888	13,967	16,686	16,337	NW 11th St	9,529	11,000	13,668	10,500	11,000	
21. I-95 on ramp	19,246	12,878	14,268	16,674	CBD to I95 North Bound	14,540	13,500	37,588	9,500	13,500	
21. I-95 on ramp					CBD to I95 South Bound	9,739	3,600	14,356	2,600	3,600	
22. NW 10 ST	3,494	9,285	9,108	12,536	NW 7th Ave	3,007	4,000	9,665	3,800	4,000	
23. NW 11 ST	1,753	9,632	10,114	13,396	NW 7th Ave	2,478	2,900	6,185	2,020	2,900	
24. NW 14 ST	5,992	2,812	10,572	12,099	N Miami Ave	1,933	8,800	8,935	4,900	8,800	
25. NW 17 ST	2,400	1,625	2,052	1,100	NW 7th Ave	1,609	3,400	5,913	2,700	3,400	
26. NW 20 ST	19,615	24,047	25,796	22,406	NW 12th Ave	13,340	27,500	8,595	37,000	27,500	
27. NW 2 AVE	28,077	35,895	41,772	55,539	NW 8th St	3,556	7,100	8,163	7,200	7,100	2022 count from FTO website
28. N Miami AVE	11,643	20,650	18,151	25,831	NW 20th St	21,925	17,200	16,114	32,000	17,200	
29. NE 2 AVE	29,991	36,800	39,307	46,859	NE 10th St	16,769	14,500	21,719	16,530	14,500	Count is reducing over years
30. Biscayne Blvd. (north)	29,279	37,065	37,657	46,525	Julia Tuttle CSWY	26,061	42,500	37,956	42,500	42,500	
31. NE 15 ST /Venetian Way	5,009	8,151	8,673	10,487	Venetian Way	5,109	12,500	10,279	11,500	12,500	
32. I-395 WB off ramp	11,022	5,495	5,723	66,426	I95 South	9,683	16,500	10,200	16,000	16,500	
32. I-395 WB off ramp					I95 North	16,110	23,500	17,803	24,300	23,500	
33. I-395 EB off ramp	10,660	2,353	2,809	163	EB off ramp	8,286	15,500	24,086	13,700	15,500	
34. I-395 WB on ramp	23,928	32,689	34,945	48,367	I95 South Bound	26,643	39,500	35,376	40,000	39,500	
34. I-395 WB on ramp					I95 North Bound	13,305	21,500	25,834	21,000	21,500	
35. I-395 EB on ramp	25,081	33,454	32,421		I95 South Bound	15,830	26,500	26,475	23,000	26,500	
35. I-395 EB on ramp					I95 North Bound	6,956	15,000	14,897	12,500	15,000	

Entry/Exit Station	2003 MDTMP FSUTMS Runs				Volume Location	SERPM9 2019		SERPM8 2015		2020 Projection	Comments
	1999 MUATS	2020 Baseline	2020 Enhanced	2020 Visionary		2019 Volumes	2019 Count	2015 Volumes	2015 Count		
36. CBD WB on Miami AVE	15,856	17,659	17,266		S Miami Ave and SW 2nd st	22,976	13,500	39,094	9,500	13,500	
37. CBD EB off Miami AVE	4,630	12,808	13,032		S Miami Ave and I 95 and SE 1st Pl	3,443	4,700	276	7,100	4,700	
38. CBD EB off NE 1 AVE	5,046	2,405	1,742		NE 4th St	3,443	3,500	276	2,500	3,500	
39. CBD WB on SE 2 AVE	8,010	8,234	8,441		SE 2nd St and SE 2 Ave	13,065	14,500	13,038	16,500	11,500	2022 count from FTO website
40. CBD EB off SE 2 AVE	16,637	19,222	18,631		I95 Highway and SE 2nd Ave	21,983	20,000	25,751	25,000	20,000	

Appendix:

NW 2nd Avenue Example of Historical Data Verification


FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2022 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 7062 - NW 2ND AVE 100 FT SOUTH OF NW 8TH ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	7100 F	N 4000	S 3100	9.00	54.70	3.20
2021	7200 C	N 4100	S 3100	9.00	54.30	3.20
2020	5500 E			9.00	54.20	15.90
2019	5500 S	N 2700	S 2800	9.00	54.60	4.90
2018	5500 F	N 2700	S 2800	9.00	54.30	4.90
2017	5500 C	N 2700	S 2800	9.00	55.00	4.90
2016	6500 F	N 3800	S 2700	9.00	54.50	6.70
2015	6200 C	N 3600	S 2600	9.00	54.70	6.70
2014	4600 S	N 2400	S 2200	9.00	54.50	8.10
2013	4600 F	N 2400	S 2200	9.00	52.40	8.10
2012	4600 C	N 2400	S 2200	9.00	55.70	8.10
2011	7200 F	N 3700	S 3500	9.00	55.10	7.80
2010	7200 C	N 3700	S 3500	8.98	54.08	7.10
2009	7100 C	N 3700	S 3400	8.99	53.24	5.40

NE 2nd Avenue Example of Historical Data Verification

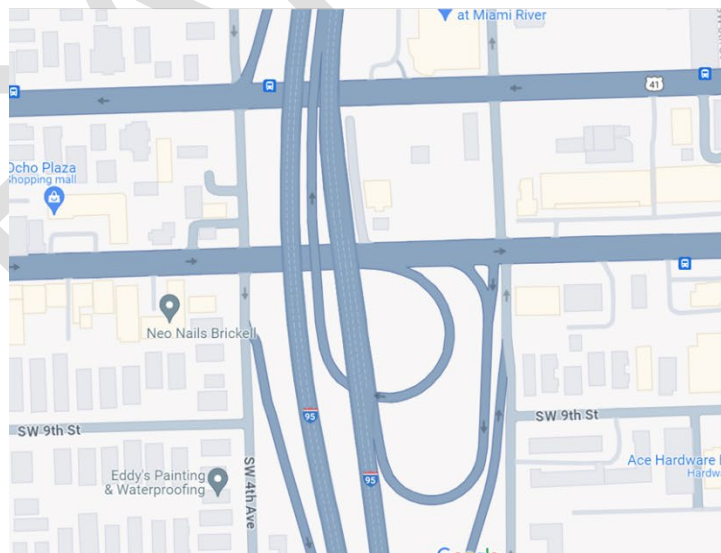
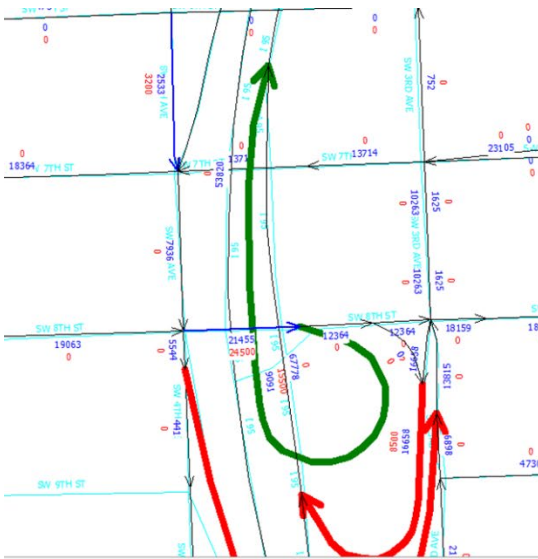
FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 3060 - NE 2 AVE, 200'N OF NE 9 ST.

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	11500	C	S 11500	0	9.00	99.90	6.90
2021	10000	C	S 10000	0	9.00	99.90	8.10
2020	8200	C	S 8200	0	9.00	99.90	7.20
2019	14500	C	S 14500	0	9.00	99.90	3.90
2018	15000	C	S 15000	0	9.00	99.90	3.50
2017	13500	C	S 13500	0	9.00	99.90	4.10
2016	13000	C	S 13000	0	9.00	99.90	13.70
2015	16500	C	S 16500	0	9.00	99.90	9.60
2014	16000	S			9.00	99.90	16.30
2013	16000	F	0	0	9.00	99.90	16.30
2012	16500	C	S 16500	0	9.00	99.90	16.30
2011	19000	C	S 19000	0	9.00	99.90	16.30
2010	15000	C	S 15000	0	8.98	99.99	16.30
2009	12000	C	S 12000	0	8.99	99.99	13.80
2008	10500	C	S 10500	0	9.09	99.99	16.70
2007	13500	F	0	0	8.01	99.99	13.70

I-95 SW 8th Street on Ramp (NB on ramp multiple entries demonstration)



OTHER SIGNIFICANT SHORT-, MID-, AND LONG-TERM PROJECTS

The next section consists of a review to identify all significant short-, mid-, and long-term projects that were not considered in the 2003 MDTMP within the study area. This assessment includes an examination of the following documents:

- 2024 Transportation Improvement Program (TIP)
- 2045 Long Range Transportation Plan (LRTP)

- FDOT – D6 Five-Year Work Program
- 2023 – 2032 DTPW Transit Development Plan (TDP)
- 2021 Miami-Dade County Vision Zero Framework Plan
- 2045 Miami-Dade County Downtown Bike Master Plan
- 2025 Downtown Miami Masterplan
- Commodore Trail Master Plan
- 2015 The Underline Master Plan
- 1989 City of Miami Comprehensive Neighborhood Master Plan (amended through Oct. 2019)
- FDOT District 6 Bike Network Plan
- Better Bus Project

THE UNDERLINE MASTER PLAN

The Underline is a transformative project in Miami, spanning from the Miami River near Brickell Avenue (SR 5/US-1) to the Dadeland South Metrorail Station. Figure 18 depicts the cover of the original Underline Plan in 2015. This ambitious initiative serves a dual purpose as an urban trail and a linear park, with the potential to significantly boost economic development by increasing property values along its corridor. Beyond economics, The Underline aims to promote a healthier lifestyle, offering alternatives to driving through walking and biking options, complemented by various recreation features like walking/running and biking trails, basketball courts, and soccer fields. With its generous width and strategic location beneath the Metrorail line and parallel to SR 5/US-1, The Underline is poised to become a vital transportation solution, encouraging public transportation use and off-road cycling within a beautiful natural setting. Moreover, it acts as a gateway to surrounding communities, fostering connectivity and community identity. Ultimately, The Underline envisions itself as a signature linear park, urban trail, and living art destination that embodies the spirit of Miami, promoting mobility, recreation, community engagement, and a healthier lifestyle while inspiring innovation in open space and transportation planning. The Miami DDA increased its boundaries to include the Underline in 2019.

Status:

Phase 1 – the ½ mile section from the Miami River to SW 13th Street was completed and opened in February 2021. Phase 3,

Phase 2 – with a length of more than 2 miles from SW 13th Street to SW 19th Avenue, this segment is currently under construction, and it is expected to be completed in the Spring of 2024.

Phase 3 – spanning approximately 7 miles from SW 19th Avenue to Dadeland South Metrorail Station, this segment began construction in October 2023 and is expected to be completed in 2026.

MAJOR PROJECTS IN THE STUDY AREA

Short-range/Minor Improvements

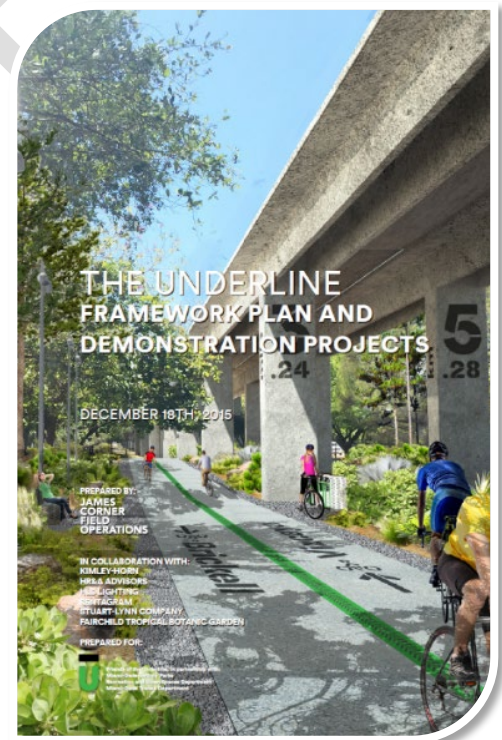


Figure 18. The Underline Master Plan

1. For SW 7th Street, the suggested enhancements involve incorporating early indicators and ensuring an 18-foot crossing width.
2. The proposed changes for the Brickell Bus Turnaround involve relocating the pedestrian path to SW 1st Avenue and ensuring a 10-foot crossing width for the bike path at SW 1st Court. It also includes the installation of early indicators and buffer space. The bus turnaround will be rebuilt to reduce elevation changes at the crossing. The cross-slope in the bike path should be as flat as possible, and a flat-channel curb ramp opening designed for the bike path is preferred over a pedestrian design.
3. For SW 15th Road, SW 25th Road, and SW 26th Road, the proposed improvements include installing early indicators and buffer space, and there is a recommendation to provide 18-foot wide crossings on these roadways.

Mid-range/ Medium Improvements:

1. For SW 8th Street, the proposed measures include maintaining a straight approach, incorporating early indicators, and adding a crosswalk on the SW 1st Court. There is a consideration that signaling SW 1st Court may be necessary, operating it as part of the SW 1st Avenue signalized intersection.
2. For SW 13th Street (Coral Way), the improvement actions involve maintaining a straight approach, incorporating early indicators, and considering either a tabled crossing or re-aligning SW 13th Street to create a median refuge for the existing mid-block crossing. Additionally, a minimum 18-foot crossing width is advised.

Long-range/Major Improvements: None

2025 DOWNTOWN MIAMI MASTERPLAN

The goal of the Downtown Miami Master Plan is to seamlessly connect and harness the full potential of the Central Business District (CBD), the Arts & Entertainment (A+E) District, Brickell, and Miami's waterfront. Drawing upon prior planning efforts and comprehensive studies, the Master Plan (accessible via the caption for Figure 19) delineates actionable steps designed to enhance the downtown experience, incentivize private sector investments, and ensure the proper allocation of public resources. Rooted in the vision that Downtown Miami should stand as the ultimate business, social, and cultural epicenter of the Americas, this plan strategically leverages its unique status as a major World city nestled within a tropical waterfront environment. The plan is framed by the following goals:

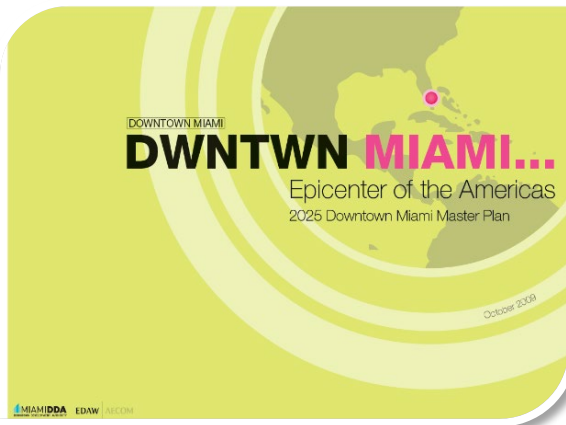


Figure 19. [2025 Downtown Miami Master Plan](#)

1. Enhance Downtown Miami's position as the business and cultural hub of the Americas with ongoing development, cultural institutions like the Pérez Art Museum Miami, a planned convention center, and the attraction of major corporations reinforcing its status.

2. Leverage the stunning tropical waterfront of Biscayne Bay and the Miami River, providing unique opportunities for serenity and commercial activity, with numerous access points, public parks, and waterfront walks enhancing its appeal.

3. Elevate two iconic streets, Biscayne Boulevard (SR 5/US-1) and Brickell Avenue (SR 5/US-1), to international prominence by transforming them into vibrant and attractive public spaces comparable to renowned streets like Champs-Élysées in Paris, France or Las Ramblas in Barcelona, Spain.
4. Create exceptional streets and community spaces downtown, recognizing that it is not just buildings but the people and their experiences that define its character, emphasizing the importance of high-quality public realms.
5. Promote transit and regional connectivity to ensure convenient access to Downtown Miami, with a focus on developing diverse transportation options that facilitate movement within the downtown area, making it easier for people to conduct business, shop, work, and live in the region.

MAJOR PROJECTS IN THE STUDY AREA

Short-range/Now & Short

1. Redevelop Flagler Street into Miami's Pedestrian-Oriented Main Street
2. Enhance Connectivity to Neighborhoods Surrounding Downtown
3. Enhance Downtown Corridors through the Development and Implementation of Streetscape Guidelines
4. Connect and Promote Downtown Parks, Open Spaces, and Greenways
5. Rebalance Roadways Towards Transit, Pedestrians, and Cyclists.
6. Promote Neighborhood Level Transit such as Streetcar, Expanded Metromover, and Trolley Services
7. Support Transit with Carsharing, Bike Rentals/Bikesharing, PediCabs, and Other Creative Mobility Solutions

Mid-range/Medium

1. Promote Metropolitan Level Transit such as *Baylink*, Expanded Metrorail, and Light Rail

Long-range:

1. Promote Regional Level/Commuter Transit such as the FEC Corridor, Tri-Rail, and High-Speed Rail
2. Develop a Viable Downtown Intermodal Center at the Government Center or Historic Overtown/Lyric Theater Metrorail Stations

2045 MIAMI-DADE COUNTY LONG RANGE TRANSPORTATION PLAN

The Miami-Dade County Long-Range Transportation Plan (LRTP) is a crucial component of Miami-Dade County's transportation planning process. Federal and state regulations mandate an LRTP update every five years, and it requires the LRTP to encompass a planning horizon of at least 20 years from the Miami-Dade TPO adoption date. The 2045 LRTP received approval from the Miami-Dade TPO Governing Board in September 2019. It outlines four distinct planning periods, each with its implementation years: Plan Period I (2020-2025), Plan Period II (2026-2030), Plan Period III (2031-2035), and Plan Period IV (2036-2045). Additionally, the plan includes a list of partially funded and unfunded projects, as well as projects funded by the private sector, developers, and set-aside funds. Figure 20 leads to the document's TPO webpage.



Figure 20. [2045 Miami Dade County Long Range Transportation Plan](#)

MAJOR PROJECTS IN STUDY AREA

1. SR 5/US-1 from SW 72nd Street to SE 13th Street: Install Fiberoptic Communications for Traffic Surveillance and Control Systems:

Priority 1: TIP and 2025

1. Implement Bus Express Rapid Transit Service:
 - a. Beach Express North: from the Miami Beach Convention Center to the Golden Glades Multimodal Transportation Facility
 - b. Beach Express Central: from the Miami Beach Convention Center to the Civic Center Metrorail Station
 - c. Beach Express South: from the Miami Beach Convention Center to the Downtown Intermodal Terminal
2. Construct Transit Terminal with six bus bays at Mount Sinai Transit Terminal - SMART Terminal: I-195 (SR 112)/907
3. Interchange Improvement: at the SB SR 9A (I-95) towards WB SR 836 (Dolphin Expressway)
4. Bridge Replacement and Add Lanes: SR 836 (Dolphin Expressway)/I-395 (SR 836): West of I-95 (SR 9) to MacArthur Causeway Bridge
5. New Express Bus Service: I-195 (SR 112) Bus on Shoulders (Roadway Improvements): I-95 (SR 9) to SR 907 (Alton Road)
6. New Road: I-195 (SR 112) Frontage Road and Ramp Realignment (Miami Design District)

Priority 2: 2026-2030

1. Construct a park-and-ride/transit terminal with 100 surface parking spaces
 - a. Midtown Station - SMART Terminal: US 1 (Biscayne Blvd/SR 5/US-1) and NE 39th Street
2. Modify Interchange: I-95 (SR 9) Interchange: at SW 7th Street and SW 8th Street (Tamiami Trail/ SR 90/US-41)
3. Operational and Capacity (PD&E and Design): I-195 (SR 112) Corridor Improvements: NW 12th Avenue (SR 933) to SR 907 (Alton Road)

Priority 3: 2031-2035 - none

Priority 4: 2036-2045

1. PortMiami Tunnel Oversight Consultant for PortMiami Tunnel: MacArthur Causeway to PortMiami
2. Project Financing: PortMiami Tunnel-Phase 52, 82, and A8, Watson Island to MacArthur Causeway Bridge
3. Ultimate Plan Study (Managed Lanes /Capacity /Operations) for I-95 (SR 9): US 1(South Dixie Highway/SR 5) to Broward County Line
4. Planning Study Segment 1 for I-95 (SR 9) Corridor: SR 5 (US-1/ Dixie Highway) to South of I-395 (SR 836/Dolphin Expressway)
5. Planning Study Segment 2 for I-95 (SR 9) Corridor: North of I-395 (SR 836/Dolphin Expressway) to South of NW 62nd Street (Dr. Martin Luther King Jr. Boulevard)

Partially Funded:

1. Rapid Transit connecting Midtown/Miami CBD to the Miami Beach Convention Center area.
 - a. Beach Corridor: Midtown Miami and Downtown to Miami Beach Convention Center
2. Project Development & Environmental for SR 9A (I-95): SR5 (US 1/South Dixie Hwy) to South of NW 62nd Street (Dr. Martin Luther King Jr. Boulevard)
3. Modify (IMR) SR 112 (I-195) at Miami Avenue Interchange Improvement

Unfunded:

1. Preserve existing transit facilities and equipment, including improving service reliability, safety, quality, convenience, and comfort.
 - a. Government Center Station (Downtown Miami Development of Regional Impact - Increment III)
2. Improve the speed, reliability, identity, comfort, and convenience of transit.
 - a. Coral Way (SR 972) Enhanced Bus: SW 147th Avenue and SW 8th Street to Brickell Metrorail Station
 - b. NW 7th Avenue Enhanced Bus: from Downtown Miami to the Golden Glades Interchange and from the Dolphin Station to the Government Center
3. Improve regional and local connectivity, including improving the speed, reliability, comfort, and convenience of transit while serving new markets and supporting economic vitality.
 - a. Metromover Brickell Loop Extension: Financial District Metromover Station
 - b. Metromover Omni Extension: School Board Station
4. Enhance regional connectivity by developing a multimodal transit hub with convenient access to jobs, housing, goods, and services. This also includes improving quality, safety, convenience, comfort, and accessibility while serving new markets and increasing system integration.
 - a. Metrorail/Tri-Rail Bus Hub Improvements: Metrorail/Tri-Rail Transfer Station
5. Improve the speed, reliability, identity, comfort, and convenience of transit.
 - a. SW 8th Street Enhanced Bus: FIU-Modesto A. Maidique Campus to Brickell Metrorail Station
 - b. Systemwide Off-street Bus Stop Enhancement
6. Provide alternatives to local commuters driving single-occupancy private automobiles while providing viable as well as attractive mobility options for tourists and other visitors

- a. Water Borne Transit Service for the Biscayne Bay
- 7. Electric Car Charging Stations Countywide
- 8. Exclusive transit lanes, barrier-separated bicycle lanes/shared-use paths, and widened sidewalks connecting with the Government Center
 - a. MacArthur Causeway (SR A1A) TSM&O: from US-1(South Dixie Highway/SR-5) to Ocean Drive.

MDTPO TRANSPORTATION IMPROVEMENT PROGRAM (TIP): FISCAL YEARS 2024-2028

The Transportation Improvement Program (TIP) for Fiscal Years 2023/2024 to 2027/2028 is an annual document mandated by federal regulations, ensuring that transportation projects are eligible for federal funding in Miami-Dade County. The TIP serves as a strategic roadmap, ensuring project consistency with broader planning documents and facilitating periodic evaluations by the TPO. Aligned with the Long-Range Transportation Plan (LRTP) the TIP prioritizes key transportation projects over a five-year period.

Emphasizing the initial three years but spanning five, the TIP outlines proposed transportation improvements, including Intermodal, Highway, Transit, Aviation, Seaport, and Non-Motorized projects totaling \$11.702 billion. Projects are classified by funding sources. During the 2024-2028 period, a notable portion of funding has been secured for public transit projects. The following is a list of major projects within the study area included in the 2024-2028 TIP document for funding.

PART 1: 4- YEAR FEDERALLY FUNDED MAJOR PROJECTS

TPO Project No. DT2516881: A total of \$62 million in funding was secured for Bridge Replacement and Additional Lanes along SR 836/I-395 for the segment west of I-95 to the MacArthur Causeway Bridge.

TPO Project No. TA4522391: The Northeast Corridor Smart Commuter Rail secured a total of \$207 million of funding from the Federal Transit Administration (FTA) for the Urban Corridor Improvements.

TPO Project No. DT4227135: The Venetian Causeway Bridge Replacement (#874461) secured a total of \$150,000 from the Advance Construction (BRT) (ACBR) for Preliminary Engineering.

TPO Project No. DT4227137: The Venetian Causeway Bridge Replacement (#874465) secured a total of \$150,000 from ACBR for Preliminary Engineering.

TPO Project No. DT4460531: The City of Miami, I-395 Pedestrian Baywalk Connection, secured a total of \$1.05 million from Transportation ALTS -Any Area, and Transportation ALTS- >200K for the construction of a Pedestrian/Wildlife Overpass.

TPO Project No. DT4507331: The Flagler Street Smart Demonstration Project secured a total of \$5.126 million from STP Urban Areas > 200k for Preliminary Engineering construction.

The TIP also includes a list of FDOT, District 6 major projects that are located within Miami-Dade, related to improvements to highways, transit, aviation, rail, seaport, freight, and bicycle/pedestrian modes over the 2023 through 2028 period. The section below lists the major projects located within the study area.

PART 2: 5-YEAR PROJECT LISTINGS STATE TRANSPORTATION SYSTEMS AND MAJOR PROJECTS

TPO Project No. SP4333631: The Port of Miami Cruise Terminal Improvements under the Seaport Capacity Project has a proposed funding total of \$67.385 million.

TPO Project No. TA4204625: The Urban Corridor Improvements for the I-95 Express Downtown Miami transit route, a Miami Central Business District, has a proposed funding total of \$40.658 million.

TPO Project Nos. TA366951 to TA366957: The City of Miami has a proposed funding total of \$7.128 million for the purchase and replacement of trolley vehicles and equipment.

TPO Project No. TA4522391: The Northeast Corridor Smart Commuter Trail, Urban Corridor Improvements has proposed total funding of \$414 million.

TPO Project No. DT2511562: The Port of Miami Tunnel has proposed funding of \$17.749 million for the construction of a new road between the Port and SR 836/I-395.

TPO Project No. DT2516881: FDOT has proposed total funding of \$952 million for bridge replacement and additional lanes on SR 836/ I-395 for the segment West of I-95 to the MacArthur Causeway Bridge.

TPO Project No. DT4227131: FDOT has a proposed total funding of \$38.227 million for the rehabilitation of bridges along the Venetian Causeway from NE 15th Street (City of Miami) to Dade Boulevard (City of Miami Beach).

TPO Project No. DT4234521: FDOT has proposed funding of \$1.697 million to provide landscaping along SR 9A/I-95 for the segment between NW 8th Street and NW 17th Street.

TPO Project No. DT4234522: FDOT has proposed funding of \$2.288 million to provide landscaping along SR 9A/I-95 for the segment between NW 32nd Street and NW 47th Terrace.

TPO Project Nos. DT4295361 to DT4295367: FDOT has proposed total funding of \$6.632 million to provide pedestrian safety improvements in Miami-Dade County, including sidewalks and ADA-compliant push buttons at crosswalks.

TPO Project No. DT4234522: FDOT has proposed funding of \$2.288 million to provide landscaping along SR 9A/I-95 for the segment between NW 32nd Street and NW 47th Terrace.

TPO Project No. DT4352011: FDOT has proposed total funding of \$22.280 million for the FDOT District 6, Districtwide Traffic Signal Systems Retiming Project.

TPO Project No. DT4355732: FDOT has proposed total funding of \$6.389 million for the FDOT District 6, Districtwide Pedestrian & Bicycle Safety Program's Traffic Engineer Study.

TPO Project No. DT4364261: FDOT has proposed total funding of \$2.112 million for Modal System Planning for SR 948/NW 36th Street for the segment between SR 826/Palmetto Expressway and SR5/US 1.

TPO Project No. DT4377821: FDOT has proposed total funding of \$15.565 million for Project Development and Environmental (PD&E)/Environmental Management Office (EMO), Bus Rapid Transit Study for SR968/Flagler from SR 821/Homestead Extension of the Florida Turnpike to SR 5/Biscayne Boulevard.

TPO Project No. DT4402281: FDOT has proposed total funding of \$7.629 million for Transportation Planning and a PD&E/EMO study for I-195 /SR 112 for the segment between NW 12th Avenue to SR 907/ Alton Road.

TPO Project No. DT4424322: FDOT has a proposed total funding of \$11.689 million for a Bicycle Path/Trail on MacArthur Causeway from east of SR 5/ Biscayne Boulevard to west of SR 907/ Alton Road.

TPO Project No. DT4438901: FDOT has a proposed total funding of \$3.009 million for Rigid Pavement Rehabilitation of the SR 970/SR 5/Downtown Distributor Ramp from South Miami Avenue to SE 2nd Avenue.

TPO Project No. DT4438941: FDOT has proposed total funding of \$3.974 million for Rigid Pavement Rehabilitation of the SR 9A/ I-95 Ramps at SR 90/ SW 8th Street and SW 7th Street.

TPO Project No. DT4438961: FDOT has proposed total funding of \$5.483 million for Rigid Pavement Rehabilitation of the SR 9A/ I-95 Southbound Off-Ramp to SW 25th Road.

TPO Project No. DT4439051: FDOT has proposed total funding of \$1.928 million for Resurfacing SR 90/US 441/SW 7th Street from Brickell Avenue to the west of SW 2nd Avenue.

TPO Project No. DT4439111: FDOT has proposed total funding of \$3.552 million for Resurfacing SR 5/US 1/Biscayne Boulevard from south of NE 5th Street to NE 11th Street.

TPO Project No. DT4439131: FDOT has proposed total funding of \$4.306 million for Rigid Pavement Rehabilitation of SR 886/ Port Boulevard, from Biscayne Boulevard to Port Miami.

TPO Project No. DT4444501: FDOT has a proposed total funding of \$5.873 million for the installation of a Roundabout at SR 972/SW 13th Street/SW 3rd Avenue/Coral Way on SW 15th Road.

TPO Project Nos. DT4446221 FDOT has proposed total funding of \$16.254 million for Miscellaneous Construction on SR 112/ I-95/ Julia Tuttle Causeway from East of SR 5/Biscayne Boulevard to Alton Road.

TPO Project No. DT4448011: FDOT has proposed total funding of \$5.976 million to Paint the westbound SR 913 Ramp to the I-95 northbound bridge.

TPO Project No. DT4448021: FDOT has proposed total funding of \$3.060 million to Paint the westbound SR 913 Ramp to the US 1 southbound bridge.

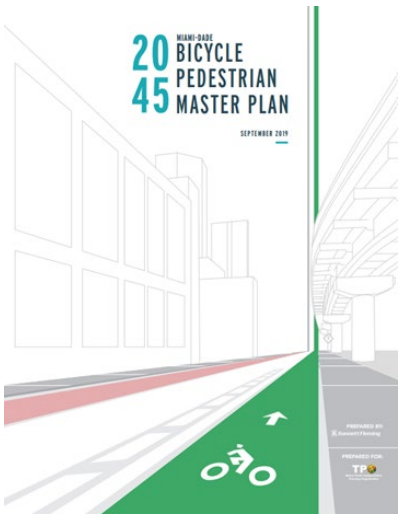
TPO Project No. DT4460531: The City of Miami, I-395 Pedestrian Baywalk Connection, has a proposed total funding of \$4.279 million for the construction of a Pedestrian/Wildlife Overpass.

TPO Project No. DT4477511: FDOT has proposed total funding of \$2.373 million to Paint the SR 970/ Downtown Distributor bridge from US 1 to I-95 northbound bridge #870475.

TPO Project No. DT2506103: FDOT has proposed total funding of \$30,000 to Landscape SR 5/US 1 from SE 5th Street to SE 25th Road.

TPO Project No. DT4476011: Miami-Dade County has proposed total funding of \$460,000 for Pedestrian and Safety Improvements under the Safe Routes to School program for Booker T. Washington Senior High School.

TPO Project No. DT4522031: FDOT has proposed total funding of \$2.4 million for the FDOT District 6 Electric Vehicle Charging Program.



The Miami-Dade 2045 Bicycle and Pedestrian Master Plan, as seen in Figure 21, is a comprehensive strategy that evaluates opportunities within the SMART Plan transit hubs and stations to extend the reach of bicycle and pedestrian trips throughout the entire county, with the support of transit connections. The primary objective of this plan is to prioritize the needs of daily commuters and encourage projects that provide safe and convenient connections for the maximum number of individuals, especially those who rely on these modes of transportation the most, to a wide range of destinations on a daily basis.

In addition to facilitating daily commutes, the plan also considers other important pedestrian and bicycle trip destinations, including educational institutions, major medical centers, high-employment areas, and outdoor recreational locations. The plan realizes that these opportunities will contribute to addressing the ongoing issue of traffic congestion that is common in metropolitan areas and promote the development of healthy and sustainable communities within Miami-Dade County.

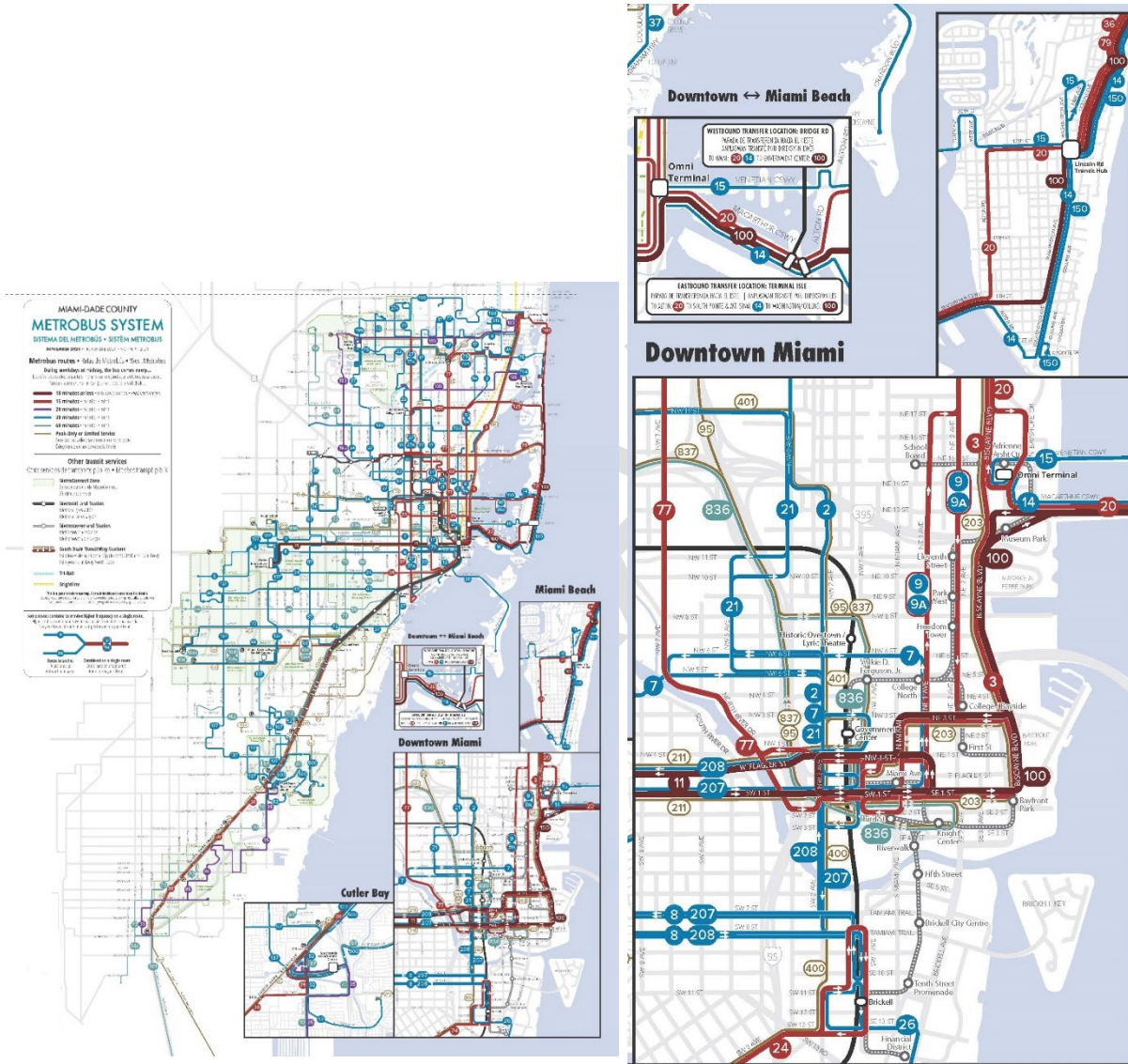
Figure 21. 2045 Miami Dade Bicycle and Pedestrian Master Plan

This plan serves as the non-motorized component of the 2045 Long Range Transportation Plan (LRTP), emphasizing the significance of enhancing non-motorized transportation options within the county's transportation network. The following is a list of the projects included in the 2045 Bicycle Pedestrian Master Plan that also fall within the study area.

- Safe Routes to School, Jose de Diego (Project #4): Improvements to create safe routes to school for students.
- The Underline, Dadeland South to Miami River, Trail Improvements (Project #55): Enhancements to The Underline trail from Dadeland South to the Miami River.
- Hobbie Island Beach Park, Island Western Limit to Island Eastern Limit, dedicated on-road bicycle facility (Project #58): On-road bicycle facility improvements on Hobbie Island Beach Park.
- NW 17th Street, NW 7th Avenue to NW 7th Court: off-road bicycle and pedestrian Facility Improvements (Project #59): Enhancements to off-road bicycle and pedestrian facilities.
- Rickenbacker Causeway, Green Bike Lanes Segment A- Phase 1, Brickell Ave to Hobbie Island, dedicated on-road bicycle facility improvement (Project #78): On-road bicycle facility improvements, including green bike lanes on Rickenbacker Causeway.
- North Bay Village_ Baywalk Plaza Area Phase 1: NE 6th Street to NE 11th Street: off-road bicycle and pedestrian facility improvement (Project #80): Enhancements to off-road bicycle and pedestrian facilities in the North Bay Village area.
- SMART Terminal Connector, SW 12th Avenue, SW 13th Street to NW 46th Street, protected on-road bicycle facility and pedestrian improvements (Project #88): Development of protected on-road bicycle facilities and pedestrian enhancements in the SMART Terminal Connector area.
- SMART Terminal Connector, SW 24th Avenue to US-1, protected on-road bicycle facility and pedestrian improvements (Project #90): Development of protected on-road bicycle facilities and pedestrian enhancements in the SMART Terminal Connector area.

- SMART Terminal Connector US-27, NW 19th Avenue to US-1, protected on-road bicycle facility and pedestrian improvements (Project #94): Development of protected on-road bicycle facilities and pedestrian enhancements in the SMART Terminal Connector area.
- SW/NW 1st Avenue, SW 2nd Street to SW 11th Street, dedicated on-road bicycle facility improvement (Project #95): Improvements to on-road bicycle facilities on SW/NW 1st Avenue.
- SR 925/NW 3rd Avenue, NW 1st Street to NW 8th Street, dedicated on-road bicycle facility improvement (Project #98): On-road bicycle facility improvements on SR 925/NW 3rd Avenue.
- SW 1st Street, SW 5th Avenue to SW 2nd Avenue, dedicated on-road bicycle facility improvement (Project #108): Improvements to on-road bicycle facilities on SW 1st Street.
- NW 11th Street, NW 12th Avenue to SW 2nd Avenue, dedicated on-road bicycle facility improvement (Project #112): On-road bicycle facility improvements on NW 11th Street.
- SMART Trails -SW/SW 26th Road, Route B, SR 913/Rickenbacker Causeway to The Underline, off-road bicycle and pedestrian facility improvement (Project #113): Enhancements to off-road bicycle and pedestrian facilities in the SMART Trails area.
- NW 11th Street, NW 12th Avenue to SW 2nd Avenue, dedicated on-road bicycle facility improvement (Project #115): On-road bicycle facility improvements on NW 11th Street.
- SW 1st Court, SW 11th Street to SW 7th Street, dedicated on-road bicycle facility improvement (Project #116): Improvements to on-road bicycle facilities on SW 1st Court.
- NW 5th Avenue, NW 4th Street to NW 11th Street, dedicated on-road bicycle facility improvement (Project #117): On-road bicycle facility improvements on NW 5th Avenue.
- SMART Terminal Connector NW 20th Street, NW 27th Avenue to US-1, protected on-road bicycle facility and pedestrian improvements (Project #119): Development of protected on-road bicycle facilities and pedestrian enhancements in the SMART Terminal Connector area.
- SMART Trails, SW 32nd Road/Brickell Avenue, Route A, The Underline to Rickenbacker Causeway, off-road bicycle and pedestrian facility improvement (Project #120): Enhancements to off-road bicycle and pedestrian facilities in the SMART Trails area.
- SW 10th Street, Brickell Plaza to SW 1st Avenue, off-road bicycle facility improvement (Project #134): Improvements to off-road bicycle facilities on SW 10th Street.
- SR 925/NW 3rd Court, NW 1st Street to NW 8th Street, dedicated on-road bicycle facility (Project #136): On-road bicycle facility improvements on SR 925/NW 3rd Court.
- NW 3rd Court, NW 2nd Street to NW 8th Street, Pedestrian Facility Enhancement or Expansion (Project #137): Enhancements or expansions
-

The Better Bus Project, as depicted in Figure 22, is a collaborative effort to redesign the bus system in Miami-Dade County, led by the Miami-Dade Department of Transportation & Public Works and Transit Alliance Miami. It aims to improve the bus network, starting from a clean slate, by determining where the bus service should go, when it should operate, and how frequently it should run. The project primarily focuses on the Miami-Dade Transit (MDT) bus network, but it also considers improvements to trolley services in Miami, Miami Beach, and Coral Gables. The project does not mean changing every bus route and stop but aims to create a network designed for the current and future needs of the city and region, not based on the past.



The "Choices Report" is the first step in the Better Bus Project. It assesses the existing network, engages the public, stakeholders, and elected officials in a conversation about transit goals, and develops future recommendations for changing the transit network. The report does not contain specific recommendations but instead presents relevant facts and highlights the need to make difficult decisions to balance competing goals.

Figure 22 Map of the [Better Bus Network](#) and routes within the study area.

The project introduces two concepts: the Coverage and Ridership Concepts and the Existing Network. These concepts illustrate a spectrum of possibilities for designing the bus network, emphasizing ridership and coverage goals. Both concepts aim to significantly change the network to improve freedom and access by transit, assume changes to trolley services, and propose more efficient spacing bus stops. These changes aim to provide better job access and convenience for riders.

The project also includes a Resilience Plan to guide the County on how to provide the best possible service, given uncertainties caused by the COVID-19 pandemic and potential future challenges. The Resilience Plan organizes services into priority tiers to guide service reductions if necessary. The highest priority corridors are in dense, active areas, ensuring access to a maximum number of people and jobs in lower funding scenarios.

Ultimately, the Better Bus Project seeks to create a more efficient and resilient bus network that serves the current and future needs of Miami-Dade County.

The Better Bus Network began November 14th, 2023 and the routes within study area are:

- Routes 3 and 93 Consolidation: Routes 3 and 93 have been consolidated into the more frequent Route 3.
- Route 36: Route 36 provides a 15-minute service from the mainland to Collins Avenue and south to Lincoln Terminal.
- Route 7: Routes 9 and 10 are consolidated into an every 15-minute Route 9 along NW 2nd Avenue from downtown to NW/NE 54th Street. Previously, Route 10 ended at Omni Terminal, leaving only half the frequency from points north into the core of downtown.
- Route 15: Route 15 provides service from Omni Terminal across the Venetian Causeway to Lincoln Terminal in Miami Beach every 30 minutes.
- Route 20: Route 20 runs from the Airport, across NW/NE 20th Street NW/NE to Omni Terminal and then to the Beach, providing service every 15 minutes and consolidating service on NW/NE 20th Street.
- Route 11: Route 11 offers 10-minute service from downtown to FIU on Flagler Street.
- Route 24: Route 24 provides a 15-minute service from Brickell to LeJeune Road and a 30-minute service farther west on Coral Way.

Vision Zero is a paradigm shift that aims to eliminate deaths and severe injuries on all roadways through a system-wide approach. Vision Zero, also referred to as the safe systems approach, establishes a mindset with no tolerance for crashes that result in a fatality or severe injury. Many cities in the U.S. and Europe have seen a drastic reduction in the number of fatal and severe crashes using the Vision Zero approach. The Vision Zero approach is different from the prevailing transportation planning approach in the four distinct ways described below.



The 2021 Vision Zero Framework Plan has been developed collaboratively, incorporating insights from Vision Zero Champions and Implementors while aligning with the guiding values established for the initiative. This comprehensive plan takes a data-driven approach to tackling road safety challenges in Miami-Dade County, acknowledging the influence of socio-economic and demographic factors in these challenges. The report delves into the data analysis, pinpointing which demographics are disproportionately affected and their geographic distribution within the county. It outlines a set of actions categorized as structural, strategic, and systemic, emphasizing the need for leadership at various levels, from county policymakers to the dedicated staff responsible for implementing these policies.

The actions are further divided by program timeline, with a focus on immediate, mid-term, and long-term strategies, each with defined responsibilities, funding, resources, and collaboration efforts to propel this Vision Zero framework into action.

Miami-Dade County's safety projects follow a specific process:

- **Contiguous Projects:** Projects are created by combining nearby high-injury crash locations (within 300 feet) that are not separated by major roadways. In total, 1,957 intersections and 622 segments were combined into 1,140 safety projects.
- **Projects Prioritization:** Projects are prioritized based on several categories:
- **Crash Score:** This score combines crash data for bicycles, pedestrians, and vehicles, with a maximum score of 11 points.
- **Equitable Outcomes Score:** Prioritizes projects in locations with high crash rates, considering factors like low-income households, zero-vehicle households, and minority populations. Scores range from 0 to 5 points.
- **Safe Access to Transit Score:** Projects near transit stations and stops receive scores based on their proximity, with a maximum score of 6 points. Scores are assigned based on distance.
- **Safe Access to Future Transit Score:** Projects near future transit projects receive scores based on their proximity, with a maximum score of 6 points. Scores are assigned based on distance and transit plans.
- The top 50 priority Vision Zero safety projects are weighted, with the top five projects in each Commission District to be implemented over the next five years. These are categorized based on right-of-way jurisdiction or ownership.

Tables 10 and 11 highlight the projects that were identified in the literature review for the Vision Zero report for Districts 3 and 5 and are cataloged by priority and jurisdiction.

Table 10 Priority Safety Projects within District for Commission District 3 within the Downtown Miami study area:

MUNICIPAL ROADS		
Priority	From	To
YEAR 1	NW 14th St & NW 10th Ave	NW 15th St & NW 9th Ave
	NE 1st Ave & NE 11th St	NE 11th St & NE 2nd Ave
YEAR 2	NW 3rd Ave & NW 11th St	
	NW 15th Ave & NW 29th St	NW 14th Ave & NW 29th St
	NW 4th Ave & NW 8th St	
	NW 17th St & NW 7th Ct	NW 1st Ct & NW 17th St
YEAR 4	NW 5th Ave & NW 23rd St	
	NW 1st Ct & NW 22nd St	NW 1st Ct & NW 21st St
YEAR 5	NW 1st Ct & NW 15th St	
	NW 3rd Ave & NW 16th St	
MULTI-JURISDICTIONAL ROADS		
Priority	From	To
YEAR 1	NW 11th St & NW 2nd Ave	NW 1st Pl & NW 12th St
	NW 2nd Ave & NW 21st St	NW 2nd Ave & NW 20th Ter
	NW 3rd Ave & NW 5th St	NW 3rd Ave & NW 1st St
YEAR 2	NW 3rd Ave & NW 20th St	
	N Miami Ave & NE 20th St	
	NW 3rd Ave & NW 14th St	
	NW 1st Ave & NW 14th St	
	Biscayne Blvd & NE 8th St	Biscayne Blvd & Port Blvd
YEAR 3	NW 7th Ave & NW 11th St	NW 7th Ave & NW 6th St
	NW 29th St & NW 5th Ave	NW 2nd Ave & NW 29th St
YEAR 4	NW 10th Ave & NW 36th St	NW 2nd Ave & NW 36th St
	NW 12th Ave & NW 13th Ct	NW 12th Ave & NW 14th St

Table 11. Priority Safety Projects For Commission District Within The Downtown Miami Study Area

MUNICIPAL ROADS		
Priority	From	To
YEAR 1	SW 1st Ct & SW 2nd St	SW 1st Ct & SW 3rd St
	NW 2nd St & NW 7th Ave	NW 2nd St & NW South River Dr
	NW 3rd Ct & NW 2nd St	
YEAR 2	NE 2nd Ave & NE 2nd St	Biscayne Blvd & NE 2nd St
	28th St & Indian Creek Dr	28th St & Collins Ave
YEAR 3	SE 10th St & Brickell Ave	
YEAR 4	SE 3rd Ave & SE 3rd St	
	SW 17th Rd & SW 4th Ave	
YEAR 5	SW 2nd St & SW 24th Ave	SW 23rd Ave & SW 2nd St
	NW South River Dr & NW 27th Ave	400' West of NW South River Dr & NW 27th Ave

MULTI-JURISDICTIONAL ROADS

Priority	From	To
YEAR 1	NW 11th St & NW 12th Ave	NW 11th St & NW 11th Ct
	NW 2nd Ave & NW 1st St	SW 2nd Ave & SW 3rd St
	NE 2nd Ave & E Flagler St	
YEAR 2	S Miami Ave & SW 1st St	E Flagler St & N Miami Ave
	S Miami Ave & SW 14th St	Brickell Ave & SE 14th St
	S Miami Ave & 8th St	SE 8th St SE & Brickell Key Dr
YEAR 3	SE 2nd Ave & SE 2nd St	SE 3rd Ave & SE 2nd St
	SW 2nd Ave & SW 11th St	
	NW 7th Ave & W Flagler St	
	SW 5th Ave & 8th St	SE 8th St SE & SW 3rd Ave
YEAR 4	SW 5th Ave & SW 7th St	SW 2nd Ave & SW 7th St

COMMODORE TRAIL MASTER PLAN

The Commodore Trail Master Plan is an ambitious project that aims to connect the Old Cutler Trail to the Rickenbacker Trail, providing a continuous 5-mile route for biking, walking, and running. This trail will be a valuable addition to the community and provide numerous connections and benefits:

1. **Connections to Other Trails:** The Commodore Trail will connect seamlessly with major trails such as the Old Cutler Trail, Rickenbacker Trail, and The Underline Trail.
2. **Access to Metrorail Stations:** The trail offers easy access to key Metrorail stations, including Douglas, Coconut Grove, and Vizcaya Stations.
3. **Proximity to Public Parks:** Several public parks, including Wainwright, Steele, Kennedy, Regatta, Kirk Munroe, and more, will be easily accessible from the Commodore Trail.
4. **Nearby Schools:** The trail will serve as a convenient route for students attending schools like La Salle, Frances S. Tucker, Carrollton, Ransom Everglades, and more.
5. **Historic Sites:** Residents and visitors can explore local history and heritage by visiting historic sites along the trail, including Vizcaya, City Hall, and the Barnacle.

The Master Plan for the Commodore Trail is divided into several segments, each serving a specific area:

- Segment 1: Coco Plum Circle to N Prospect Drive. (Coral Gables)
- Segment 2: N Prospect Drive. to Darwin Street. (City of Miami)
- Segment 3: Darwin Street. to Mercy Way (Miami-Dade County)
- Segment 4: Mercy Way to SE 26th Road. / Rickenbacker Causeway (City of Miami)

This comprehensive plan will enhance the community's quality of life, providing a safe and attractive environment for various recreational activities and transportation options while preserving and celebrating local history and culture.

Segment 4 of the Commodore Trail Master Plan, with portions located within the Downtown Miami study area, focuses on addressing critical issues related to the existing sidewalks along South Miami Avenue from Mercy Way to 26th Road:

1. **Access Enhancement Opportunity:** Segment 4 provides a significant opportunity to improve access along South Miami Avenue, catering to the needs of the approximately 300,000 annual visitors to Vizcaya, a popular historic site and museum.
2. **Insufficient Sidewalk Space:** This segment faces challenges due to the presence of overly wide vehicle lanes, which occupy excessive space and limit the availability of sidewalks and transit access along South Miami Avenue.
3. **Obstructions:** The existing sidewalk in this area is obstructed by utility poles, trees, and benches, leading to disruptions in the flow of pedestrian traffic and impacting overall comfort and accessibility.

Addressing these issues will create a more pedestrian-friendly environment, improve accessibility, and enhance the experience for Vizcaya visitors and local residents.

The Commodore Trail, which was officially established in 1969 but has historical roots dating back to the 1880s, is a vital component of the network of pathways designed for current and future walking, running, and biking. It is seamlessly linked to a central system referred to as the "Miami Loop," which has been recognized and promoted by the Miami-Dade Trails Alliance. Figure 23 illustrates the Commodore segment within the Miami Loop. This network of trails and pathways enhances accessibility and connectivity for residents and visitors in the Miami-Dade area, providing opportunities for outdoor activities and mobility within the region.

The Master Plan for the Commodore Trail will outline several key priorities and guiding design principles:

- **Complete and Upgrade the Trail:** Ensure that the trail is accessible and safe for people of all ages and abilities to walk, bike, or roll along it. This includes connecting the trail to Miami's major trails, parks, and landmarks, reducing obstacles and pinch points, providing separation between trail users and vehicular traffic, enhancing lighting and signage, and improving trail crossings and access.
- **Grow Community Awareness:** Increase awareness of the trail among the community and establish a cohesive identity for it. This involves community engagement in planning and development, creating a clear wayfinding strategy, and adopting a consistent branding for the trail.
- **Set up Implementation and Maintenance Plan:** Collaborate with local entities, including the City of Miami, Coral Gables, Miami-Dade County, and community advocacy groups, to identify funding mechanisms and responsibilities for both trail construction and ongoing maintenance.

Guiding Design Principles:

- **Preserve Trees:** Trees should be removed only as a last resort. Efforts should be made to add new shade trees and landscaping wherever possible without creating new maintenance challenges.
- **Historic Elements:** Historic walls and elements should only be altered if they pose safety risks to trail users or limit accessibility under the Americans with Disabilities Act (ADA).
- **Reduce Vehicular Capacity:** Where feasible, reduce lane widths, asphalt, and excess vehicular capacity to create a more user-friendly corridor for all types of trail users.

The Commodore Trail Mater Plan is presently undergoing a comprehensive review by key stakeholders before the 30% milestone is presented to the public. Anticipated progress indicates that the report is scheduled for public presentation in Q1 of 2024.



Figure 23. Map of the Commodore Trail.

DTPW TRANSIT DEVELOPMENT PLAN (TDP): MDT MOVING FORWARD TOGETHER 2023-2032

The TDP informs and is informed by other Land Use and Transportation Plans in Miami-Dade County. MDTMovingFwd identifies the county’s long-term transit infrastructure needs, which are used in the development of the Miami-Dade Transportation Planning Organization (TPO) Long Range Transportation Plan (LRTP). The TDP also identifies and presents short-term improvements for implementation through the TPO’s Five-Year Transportation Improvement Program (TIP), FDOT’s Work Program process, the Citizens’ Independent Transportation Trust (CITT) Five-Year Implementation Plan, and Miami-Dade County’s FY 2022 Adopted Budget and Multi-Year Capital Plan. These planning documents are listed in this section by planning horizon, longest to shortest.

The following is a list of an overview of major projects included in the document, as well as major short-, mid- and long-range projects that DTPW has committed to implement:

BETTER BUS NETWORK

Miami-Dade County collaborated with the Transit Alliance to launch the Better Bus Project in November of 2023, aiming to redesign the bus network based on community input and data-driven insights. The network includes 19 frequent routes, improving accessibility for over 350,000 additional residents and bringing frequent service closer to 175,000 jobs. This initiative enhances connections, increases evening and weekend bus service, and allows more people to reach their destinations quickly.

The Bus Passenger Shelter Program is aligned with the county's transit system vision, involving the installation of new shelters, trash containers, bicycle racks, and accessibility improvements. As of February 2023, 270 bus shelters, 266 trash containers, 246 illumination systems, and 310 bicycle racks have been installed, contributing to a safer, cleaner, and more connected transit experience, with completion expected by summer 2023.

TERMINALS & PARK-AND-RIDES

Miami-Dade County Commissioners have approved an agreement with Brightline Trains Florida to implement the SMART Program Northeast Corridor, introducing high-speed rail service between Aventura Mall and Brightline's downtown train station. The County has invested \$76.7 million in this project, completed in December 2022, where high-speed trains operate every half hour during peak hours. The Aventura Station project includes an 860-foot platform, a pedestrian bridge over the railroad and Biscayne Boulevard, a Park-and-Ride facility, bus drop-off/pick-up, and landscaped areas. The station's design allows future accommodation of Tri-Rail or other commuter trains. The County owns the land, while Brightline manages operation and maintenance.

METROMOVER WAYSIDE SYSTEM OVERHAUL

The Metromover, an automated people mover system, commenced operations in April 1986, designed and installed by Bombardier Transportation. Over its 38-year history, the system has expanded, and while the vehicle fleet has been replaced, critical subsystems have reached the end of their design life. These include the Automatic Train Control (ATC) System, Data Transmission System (DTS) with Supervisory Control and Data Acquisition (SCADA), various elements of the Power Distribution System (PDS), guideway switch equipment, and central control equipment. A comprehensive wayside overhaul project is underway to replace or refurbish these subsystems, ensuring the continued reliability and high service availability of the Metromover system. The anticipated completion of this project is set for May 2025.

TRANSIT MAINTENANCE AND MODERNIZATION

Routine maintenance and enhancements to transit infrastructure play a crucial role in enhancing the passenger experience, minimizing delays, and preventing breakdowns, thereby optimizing the overall efficiency of the transit system. Moreover, modernization initiatives contribute to a more environmentally friendly transit system by incorporating new technologies and adopting cleaner, sustainable energy sources. Notable examples of modernization efforts by DTPW include the implementation of electric signage at Metrorail and Metromover stations and installing parking space counters at Metrorail parking garages.

THE UNDERLINE

The Underline is a transformative 10-mile mobility corridor located beneath the existing Miami-Dade County Metrorail, enhancing connectivity to eight Metrorail Stations and bus terminals. Functioning as a multi-modal corridor, The Underline facilitates first and last-mile connections for schools, hospitals, malls, and over 250,000 residents. The project features separate bicycle and pedestrian paths, intersection improvements along US-1, and collaboration between DTPW and FDOT. By promoting active transportation and reducing US-1 traffic, The Underline aims to encourage a healthier lifestyle.

and serve as the backbone for a future 180-mile trail network and the 22-mile Miami Loop. Initially planned in nine segments, the project is progressing in three phases, with an estimated completion date in Summer 2026 as of late 2023.

SOUTH BAYSHORE DRIVE

The South Bayshore Drive project aims to enhance pedestrian and bicycle connectivity, particularly to parks, trails, and transit facilities. This initiative involves the construction of a 10-foot wide shared-use path north of Aviation Avenue, integrated into the Commodore Trail—an integral link connecting the Old Cutler Trail to the Rickenbacker Causeway. The project encompasses resurfacing roadway pavement, upgrading signage, and enhancing pavement markings to address pinch points and enhance the overall trail network. By improving trail crossings and ensuring safe access, the project strives to remove deficiencies. The project is Anticipated to be completed by the end of 2027 and spans from Darwin Street to Mercy Way.

SAFETY & VISION ZERO

Vision Zero is a comprehensive countywide safety initiative launched by DTPW with the ambitious goal of eliminating all traffic fatalities and severe injuries by 2040. The program, initiated in late 2021, focuses on systemic changes in the transportation network's planning, design, and construction. The Vision Zero Framework Plan identified over 2,000 locations with fatalities or serious injuries, outlining actions needed to achieve zero incidents. Currently, 24 projects are in the planning and design phase, set for construction in the summer of 2023. With an average of over 300 vehicle crash fatalities annually, including 100 involving vulnerable road users, Miami-Dade County strives to enhance safety, particularly near transit facilities and equity neighborhoods. Embracing a Safe System approach, the Vision Zero Program prioritizes a culture of safety, collaborative processes, safe street design, appropriate speed limits, and data-driven decision-making to achieve its vision. The commitment is to create a transportation network free from traffic deaths and serious injuries by 2040.

VENETIAN CAUSEWAY

The Venetian Causeway, a vital 2.5-mile-long link between Miami and Miami Beach, is undergoing significant infrastructure improvements. Following a PD&E study by FDOT, it was determined that eleven of the twelve bridges on the causeway require replacement. Miami-Dade County has initiated the final design phase for these replacements, aiming to create wider bridges that enhance safety and connectivity for pedestrians, bicyclists, navigable traffic, and vehicles while preserving the historic aesthetic. The design also incorporates resiliency measures to address sea-level rise, ensuring continued connectivity for emergency services, construction, and commerce vehicles. The final design phase is underway and is expected to conclude in the summer of 2025, followed by the construction phase. This strategic initiative aligns with the broader goal of effectively improving the infrastructure to meet current and future needs.

RICKENBACKER CAUSEWAY – BEAR CUT BRIDGE PD&E STUDY

Miami-Dade County will be performing the planning study, also known as a PD&E Study, to assess replacement or substantial rehabilitation options for the Bear Cut Bridge connecting Virginia Key to Key Biscayne. Constructed in part in 1944, the bridge requires attention to ensure its continued service as the primary link between mainland Miami and the Village of Key Biscayne. The comprehensive study will involve public engagement, stakeholder coordination, alternative design development, cost-benefit analysis, long-range cost estimation, and an examination of environmental, archaeological, and socioeconomic impacts. The PD&E process is anticipated to span three and a half years. Following the study, the design or design-build phase is slated to commence in the spring or summer of 2025, with construction scheduled for 2027. This strategic initiative aligns with broader infrastructure improvement goals to address critical transportation links.

NEIGHBORHOOD IMPROVEMENT PROJECTS

DTPW, operating under the People’s Transportation Plan mandate, coordinates and executes diverse Neighborhood Improvement Projects. In response to non-site-specific categories outlined in the People’s Transportation Plan Ordinance, the Department devised "The Neighborhood Improvement Projects Formula," distributing funds evenly across commission districts. PTP Neighborhood Improvements span a wide range, encompassing intersection modifications, local and arterial road resurfacing, guardrail installations/repairs, school flashing signal installations, greenway and bikeway enhancements, ADA curb cuts/repairs, pavement markings, roadway lighting, traffic calming measures, traffic signals, and traffic sign replacements/repairs. These efforts extend to sidewalk replacement/repair, drainage repairs/installations, and landscape beautification linked to road and bridge development, bus and fixed guideway system expansion, operation, or maintenance. Neighborhood Improvement Projects include Site-Specific and Non-Site-Specific initiatives, along with Countywide efforts and the School Flashing Signals Program.

SHORT (IMPLEMENTATION OCTOBER 2021 TO SEPTEMBER 2022)

New Bus Vehicle Replacement: The Department of Transportation and Public Works (DTPW) is actively implementing its bus replacement program to reduce the average age of its fleet and expand its services. Currently, their fleet includes 577 vehicles acquired between 2016 and 2021. In 2022, DTPW plans to add seventy-five new 40' Battery Electric buses and ten 60' articulated diesel/electric hybrid buses. These efforts aim to enhance transit, promote sustainability, and support various long-term initiatives. DTPW has chosen to transition its bus fleet to clean-burning compressed natural gas (CNG) or battery-electric powered vehicles.

The SMART Program: The SMART Program, which stands for Strategic Miami Area Rapid Transit, is a comprehensive initiative focused on developing six rapid transit corridors within Miami-Dade County. This program aims to establish a robust mass transit infrastructure, offering multiple transportation options while optimizing existing infrastructure and integrating advanced technology. DTPW is committed to advancing the SMART Program during the fiscal year 2021-2022. In October 2017, the Transportation Planning Organization (TPO) passed resolution #47-17, elevating the North and South Corridors to Priority I in the Long-Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP). In 2019, resolution #26-19 extended the limits of Florida's Turnpike Express (FTE) North BERT Route to connect with the North (NW 27th Avenue) Corridor, further enhancing the SMART Program's reach and impact.



Figure 24. SMART Plan Beach Corridor Monorail Rendering

Beach Corridor: The Beach Corridor is a 9.7-mile long transportation route connecting the Miami Design District, Downtown Miami, and the Miami Beach Convention Center, primarily along MacArthur Causeway. This corridor encompasses a trunk line that links the City of Miami and the City of Miami Beach. It features two extensions: one to the Midtown/Design District in the City of Miami and another to the Miami Beach Convention Center. Funding for the Beach Corridor PD&E (Project Development and Environment)

study comes from multiple agencies, including Miami-Dade County, FDOT (Florida Department of Transportation), the City of Miami, and the City of Miami Beach. In January 2020, based on the PD&E study's recommendation, the Transportation Planning Organization (TPO) selected elevated Automated

Guideway Transit (AGT) for the trunk line, an extension of Metromover for the Midtown/Design District segment, and dedicated-lane motorbus service on Washington Avenue.

Estimated costs for the design and construction phase include:

- Trunkline (Monorail): \$522.4 million
- Design District Extension (APM): \$44.5 million
- Convention Center Extension (LRT): \$121.6 million

East-West Corridor: The East-West Corridor project will cover approximately 14 miles, connecting the Miami Intermodal Center (MIC) at Miami International Airport (MIA) to Tamiami Station at SW 8 Street and SW 147 Avenue. It will serve significant activity centers, such as MIA, the MIC, and Downtown Miami, as well as key employment areas like Sweetwater, Doral, Health District, Central Business District, and Brickell. This project complements the existing 836 Express service initiated in early 2020. The Miami-Dade TPO Governing Board selected Bus Rapid Transit (BRT) as the Locally Preferred Alternative (LPA) for this corridor on October 22, 2020. The east-west corridor BRT's design and construction phase cost is estimated at \$450 million.

BERT Routes: The SMART Plan aims to implement the BERT Network, including various corridors and park-and-ride facilities. Progress is being made toward achieving three milestones:

1. Refining recommended alternatives for the Flagler Corridor PD&E study, with TPO endorsement expected in 2020.
2. Inclusion of the SMART Plan projects in the Transit Development Plan (TDP), TPO Transportation Improvement Program (TIP), and the 2045 Long Range Transportation Plan (LRTP).
3. Implementation of the projects as funding becomes available.

The BERT Network has nine express bus routes supporting the SMART Plan. Route A (Flagler corridor) is under a study by FDOT. Routes C and F1 have been implemented. The PD&E study for Route A recommended Curbside Business Access and Transit (BAT) Lanes.

A demonstration project, the Flagler Street SMART Demonstration, is proposed to collect data for the Tier 3 analysis. It involves repurposing outside lanes into BAT lanes. If approved, construction begins in 2023.

The following is the status of BERT Network corridors within or adjacent to the study area:

- Beach Express North: PD&E study received NTP in March 2019. Included in the TDP Implementation Plan and the 2045 LRTP. The study is in progress.
- Beach Express Central: PD&E study received NTP in March 2019. Included in the 2045 LRTP. The study is in progress.
- Beach Express South: PD&E study received NTP in March 2019. Included in the 2045 LRTP. The study is in progress.

Underline: The Underline is a 10-mile (120 acre) corridor designed to connect the Miami River to Dadeland South Station, offering a secure route for cyclists and pedestrians. The project is executed in three phases. Phase I, known as the Brickell Backyard Project, encompassing 0.5 miles from the southern edge of the Miami River to SW 13th Street, was initiated in

December 2018 and successfully completed in 2021. Phase II, the Hammock Trail, spanning approximately 2.14 miles from SW 13th Street to SW 19th Avenue, is presently under construction, with an expected completion date in May 2024. The extensive Phase III, covering 7.36 miles from SW 19th Avenue to the Dadeland South Kiss-and-Ride Facility, is anticipated to traverse multiple cities, including Miami, Coral Gables, South Miami, and parts of Unincorporated Miami-Dade County, with construction completion expected toward the fourth quarter of 2025.

Waterborne Transportation as A Commuter Service: The Waterborne Transportation as a Commuter Service initiative is a strategy to alleviate traffic congestion. Since 2020, DTPW has been developing plans for these services. In the previous year, the Miami-Dade County Board of Commissioners granted DTPW the authority to negotiate on the county's behalf for an East-West route connecting Miami and Miami Beach, particularly during the construction of I-395.

This new service commenced in November 2020, running between the James L. Knight Center/Hyatt Regency in the Miami River and the Bentley Bay Marina, located just north of I-395. Notably, this service operates entirely through private means and does not receive subsidies from government agencies. Its primary purpose is to serve as a commuter service, operating from 6:00 am to 7:00 pm, Monday through Friday.

Additionally, the City of Miami is in the process of establishing a second route between the James L. Knight Center and Dinner Key Marina in Coconut Grove, and the operator is actively collaborating with the City of Miami to bring this project to fruition.

Committed Bus Service Adjustments: To ensure that service capacity aligns with ridership demand, DTPW regularly reviews and adjusts the bus route network in response to the changing transportation requirements in Miami-Dade County. These revisions aim to enhance the operational efficiency of the entire transit system. In a typical year, these adjustments are planned and included in the Transit Development Plan (TDP). However, since the implementation of the Better Bus Network, these yearly revisions have been paused.

The Better Bus Project: The Better Bus Project is a collaboration between Miami-Dade County and Transit Alliance Miami, a local non-profit advocating for improved public transit and urban infrastructure. Its goal is to overhaul the Miami-Dade County bus system. The project explored two main approaches: one to maximize ridership and the other to extend transit coverage. A cost-neutral hybrid plan, combining elements of both approaches, was presented to the BCC Transportation and Finance Committee in November of 2023.

In October 2020, a draft plan was presented to the Board of County Commissioners (BCC), who directed staff to proceed with implementation. With additional enhancements, the final draft plan was approved in a public hearing in October 2021. Implementation began in November of 2023.

MID-RANGE PROJECTS (TEN YEAR IMPLEMENTATION)

DTPW is committed to a ten-year program aimed at enhancing the current transit system. This initiative involves implementing new Metrobus routes, advancing premium transit corridors across the county, and strategically discontinuing unproductive routes.

Rapid Transit Corridors, Beach Corridor: The Beach Corridor is part of the SMART Plan, a comprehensive initiative for developing six rapid transit corridors to address future population and employment growth. This 9.7-mile project will connect Downtown Miami and Miami Beach, crossing Biscayne Bay. The area is a hub for population and economic growth, a significant employment center, and a key tourist destination. This corridor has long suffered from heavy traffic congestion and is recognized for its high bus transit ridership. In May 2017, a Project Development & Environment (PD&E) Study was launched by DTPW to explore transportation solutions between Downtown Miami and Miami Beach via I-395 and I-195. The locally preferred alternative (LPA), as recommended by the PD&E, includes elevated automated rail transit for the trunk line, an automated people mover for the Midtown/Design District, and dedicated lanes for bus/trolley service on Miami Beach. In October 2020, the Board of County Commissioners approved the contract award for the Interim Agreement (IA) for the Beach Corridor Trunk Line, which became effective on October 31, 2020. DTPW is currently working to complete pre-development work and negotiate the Project Agreement. The project also obtained an Environmental Assessment (EA) as the National Environmental Policy Act (NEPA) Class of Action (COA) for the Beach Corridor Trunkline from the United States Coast Guard (USCG), and the report was finalized in July of 2022.

Baylink (Beach) Corridor

- Location: Midtown Miami to Miami Beach Convention Center
- Project Description: Rapid Transit connecting Midtown/Miami CBD to Miami Beach Convention Center area (Light rail)
- Total Capital Cost Est.: \$897,000
- Funded Capital Cost: \$22,414
- Annual O&M: \$33,520



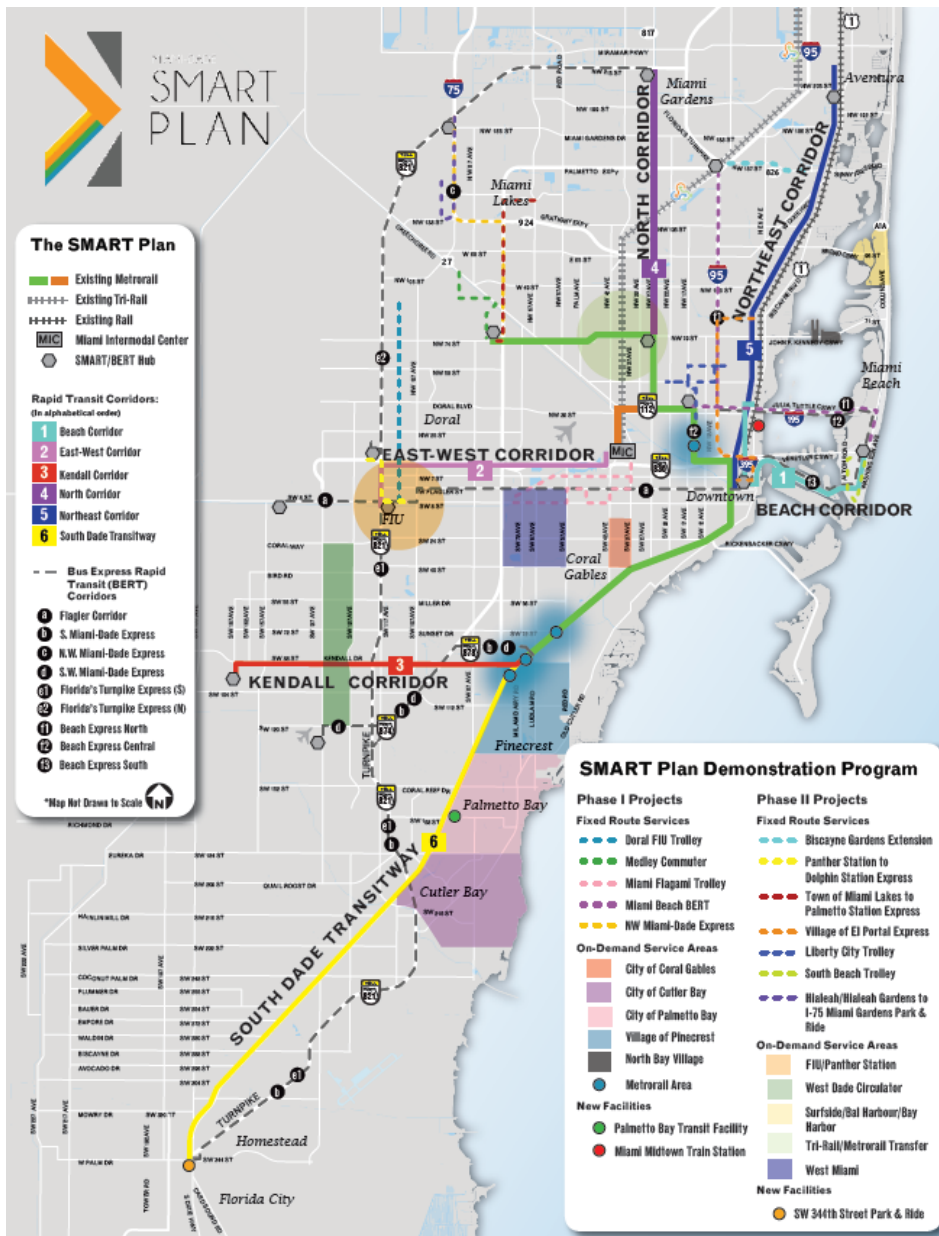
Figure 25. Miami Central Station, the southern terminus of the SMART Plan Northeast Corridor.

Northeast Corridor: The Northeast Corridor project spans roughly along US-1, stretching from Downtown Miami’s Miami Central Station (depicted in Figure 25) to the Aventura Mall near the Miami-Dade/Broward County line. This corridor is one of the region's most heavily traveled transit routes, covering about 14 miles and connecting Aventura, North Miami, North Miami Beach, Miami Shores, and the County's Central Business District in Downtown Miami. The first phase of the Northeast Corridor involves regional passenger rail service to the West Aventura Station.

In June 2020, the County initiated efforts to advance the implementation of the Northeast Corridor. In March 2021, the TPO Governing Board designated commuter/passenger rail as the Locally Preferred Alternative (LPA) for the Northeast Corridor. The proposed commuter rail service is designed with 30-minute peak headways and 60-minute off-peak headways in both directions on weekdays and 60-minute headways during weekends. DTPW is actively using the results of the completed National Environmental Policy Act (NEPA) Environmental Assessment to advance the New Starts program.

Bus Express Rapid Transit (BERT) Network: The Bus Express Rapid Transit (BERT) Network is a proposed system of nine express bus routes aligned with the SMART Plan. It aims to provide reliable and convenient bus service connecting

commuters to SMART Plan Rapid Transit Corridors and major job centers. The network offers limited stops, operates on existing roadways with Transit Signal Priority (TSP), and has a frequent service interval of 10-20 minutes. It includes Park-and-Ride facilities at existing and new locations. Some BERT routes are more advanced in their development, like Route A (Flagler Corridor), which is being studied by FDOT with a demonstration project in progress. Route C (I-75 NW Miami-Dade Express) began service in November 2019, and Route E2 is expected to start in 2027. Routes D, E1, F1, F2, and F3 are projected to launch in 2024. For Route F1 (Beach Express North), a pilot route called Route 241 "Tuttle Limited" was initiated in December 2021, testing Bus-on-Shoulder (BOS) operations on the Julia Tuttle Causeway/I-195 to alleviate congestion. The BOS operation transitioned to using the inside shoulder in October 2022, following FDOT's improvement project.



The SMART Demonstration Program, a collaborative effort involving the Miami-Dade TPO, FDOT, Miami-Dade County, SFRTA, and local municipalities, aims to implement demonstration projects supporting various aspects of the SMART Plan, including the BERT Network. These projects should be completed within three years or less, and if they prove successful, the agencies involved are committed to providing ongoing funding for their continuation.

Phase I of the program was approved by the TPO board in June 2018 and was part of the Adopted Work Program for fiscal years 2020-2024. Phase II was adopted in October 2019 and is part of the Tentative Work Program for fiscal years 2021-2025.

Within the study area, the Phase I project, sponsored by SFRTA, which involves the NE Corridor Midtown/Design District Station, was postponed due to the COVID-19 pandemic. Regarding Phase II, the Village of El Portal intends to provide express service to MiamiCentral Station.

Figure 26. The Strategic Miami Area Rapid Transit SMART Plan, revised November 2020.

SR 836 Express Bus A-Line Express

Location: From Tamiami Station (SW 8th Street at SW 147th Avenue) to Downtown Miami Government Center

Description: This project aims to offer premium express transit service along SR 836, connecting Tamiami Station to the Downtown Miami Intermodal Terminal via SW 8th Street, SW 137th Avenue, and SR 836. The service will feature 10-minute headways during peak hours and will operate on weekdays from 6:00 am to 9:00 am and 3:00 pm to 7:00 pm. DTPW is exploring potential collaboration with GMX to operate this service.

- Capital Cost (2021): \$31.9 million (includes capital cost for Express Bus B and C)
- Annual Operation and Maintenance Cost (2021): \$3.627 million
- Funded Capital Cost (2023-2032) - \$31.9 million (includes funding for Express Bus B and C)
- Funded Operation and Maintenance Cost (2023-2032) - \$9.120 million (includes funding for O & M of Express Bus B and C)

Beach Express South

- Location: MiamiCentral Station to Miami Beach Convention Center
- Description: This project involves providing express bus service from MiamiCentral Station to the Miami Beach Convention Center. The service will operate all day with 10-minute headways, spanning from 5:00 am to 2:00 am. It will be served by 12 articulated buses.
- Estimated Capital Cost (2021): \$6.841 million
- Annual Operation and Maintenance (2021): \$3.576 million
- Unfunded Transit Operations Project, included in the 2045 LRTP Plan Period I.

The Underline Phases III - IX

- Location: From SW 19th Avenue to Dadeland Boulevard
- Description: This project extends to Phase 2 and involves collaborating with FDOT to develop a trail alignment, design 24 remaining intersections, conduct surveys, prepare NEPA Type 1 CE documents, establish the standards from Phase 1 and Phase 2, and provide the design guidance for landscaping and amenities. Finalizing this document will enable FDOT to support intersection improvements and allocate funding based on specific scope, facilitating the procurement of additional segments when funding becomes available.
- Estimated Capital Cost (2021): \$109.531 million
- Annual Operation and Maintenance (2021): \$15.816 million
- Funded Capital Project FY 2023 - 2032

Vision Zero Projects Countywide

- Description: Vision Zero is a comprehensive strategy developed in Sweden in 1997 whose guiding principle is that even one death on a transportation system is unacceptable. Miami-Dade County implemented this systematic approach to improve safety countermeasures and policies aimed at reducing, with the goal of ultimately

eliminating, fatalities and serious injuries related to mobility in the region. This program is targeting 24 critical locations in the county. These locations only account for 20% of total road miles in the county but also account for 86% of all fatal and severe-injury crashes. This program was launched in response to the 40% increase in pedestrian and cyclist crashes between 2012 and 2022. In December of 2023, the county was awarded a \$16.2 million grant from the U.S. Department of Transportation under the Safe Streets and Roads for All (SS4A) program. This grant is expected to greatly increase the speed at which the county can finish this initiative.

- Estimated Total Capital Cost (2023): \$14.29 million
- Annual Operation and Maintenance (2023): TBD
- Miami-Dade Adopted Budget (2023): In FY 2023-24, the county has allocated \$6.5 million, with \$6 million from bonds. In the FY 2024-25, the county will allocate \$5.637 million and will allocate the remaining \$2.107 million in the FY 2025-26 budget.
- Funded Capital Project FY 2022-2027

Metromover Guideway

- Location: Metromover
- Description: Feasibility Evaluation, Simulations, Design Criteria, and Design-Built services to add new switches/crossovers/bypasses and all necessary infrastructure modifications to the existing Metromover Guideway superstructure.
- Estimated Capital Cost (2021): \$81.308 million

The Underline Phase II

- Location: From SW 13th Street to SW 19th Avenue
- Description: The future 10-mile Underline Corridor, running below the Metrorail from the Miami River to Dadeland South Station, will create a linear mobility corridor that enhances connectivity, increases mobility, and improves pedestrian and biking safety for residents and visitors. Phase 2 is approximately 2.14 miles long and extends from SW 13th Street to SW 19th Avenue and is expected to be completed in May of 2024.
- Estimated Capital Cost (2021): \$20.115 million
- Annual Operation and Maintenance (2021): \$2.465 million

Bike Safety - Downtown Micromobility

- Location: Commission District 5
- Description: As part of the ongoing Downtown Micromobility Networks project, DTPW is continuing to increase cyclist safety by installing vertical devices (such as but not limited to delineators, armadillos, rubber curbs, or parking stoppers) between micromobility lanes and vehicular lanes where appropriate. The project is adding

buffered bicycle lanes throughout Downtown Miami. This project aims to provide shared mobility solutions and connect communities while prioritizing bicyclists and pedestrian safety.

- Estimated Capital Cost (2021): \$500 million

Flagler Corridor BERT (Flagler Corridor BRT)

- Location: Along Flagler Street from Tamiami Station to Downtown Intermodal Terminal
- Description: Implement Bus Rapid Transit (BRT) Service
- Estimated Capital Cost (2021): \$621.400 million
- Funded Capital Cost (2021): \$2.011 million
- Annual Operation and Maintenance (2021): \$36.951 million

Northeast Corridor MiamiCentral Station to Aventura Station

- Location: Commuter Rail connecting MiamiCentral Station to Aventura Station (Miami-Dade County portion of the project led by FDOT District 4)
- Project Description: Commuter Rail connecting MiamiCentral Station to Aventura Station (Miami-Dade County portion of the project led by FDOT District 4)
- Estimated Capital Cost (2021): \$423 million
- Funded Capital Cost (2021): \$25 million
- Annual Operation and Maintenance (2021): \$18.529 million

SMART Plan Bus Express Rapid Transit (BERT) Networks

- Location: Countywide
- Project Description: The Bus Express Rapid Transit (BERT) Network is a system of eight new express bus routes that are part of the Strategic Miami Area Rapid Transit (SMART) Plan. Through the BERT Network, DTPW will provide reliable and convenient express bus service connecting commuters to and from the six SMART Plan Rapid Transit Corridors and major employment centers. The BERT Network is designed for commuters with limited stops over long distances, providing a money-saving, stress-free transportation option. Currently, the NW Miami-Dade Express Route 175 is operating between the Palmetto Metrorail station and the I-75 Park and Ride.
- Estimated Capital Cost (2021): \$82.921 million
- Funded Capital Cost (2021): \$2 million
- Annual Operation and Maintenance (2021): \$28.245 million

Midtown Station

- Location: Biscayne Boulevard and NE 39th Street
- Project Description: Construct a Park-and-Ride facility with 100 surface parking spaces.
- Estimated Capital Cost (2021): \$1.625 million
- Unfunded Capital Project, included in the 2045 LRTP Plan Period II.

Metromover Brickell Loop Extension

- Location: From Financial District Metromover Station
- Project Description: Extension of Metromover service in the Brickell area.
- Estimated Capital Cost (2021): \$290.299 million
- Unfunded Capital Project

Metromover Omni Loop Extension

- Location: From School Board Station
- Project Description: Extension of Metromover service in the Omni area.
- Estimated Capital Cost (2021): \$492.999 million
- Unfunded Capital Project

Signage Rebranding of Metrorail Stations and Garages

- Location: Metrorail Stations and Garages
- Project Description: Implement modernized and improved signage rebranding at 23 Metrorail stations and 5 Metrorail Garages. Update wayfinding system information to address the needs of locals and visitors using a variety of transportation modes.
- Estimated Capital Cost (2021): \$10.832 million
- Unfunded Capital Project

Water Borne Transit Service Biscayne Bay

- Location: Biscayne Bay

- Project Description: Implement two Water Transit Routes:
 - North/South Route - Express route from Haulover Marina (North) to Sea Isle Marina (South) Downtown.
 - East/West Route - Express route from Miami Beach Marina (East) to FEC Inlet/Bay Front Park Trust Dock (West).
- Estimated Capital Cost (2021): \$10 million
- Annual Operation and Maintenance (2021): \$600,000
- Unfunded Capital Project

LONG (PROJECTS TO BE IMPLEMENTED FROM THE 11TH YEAR ONWARD)

Government Center Station (Downtown Miami Development of Regional Impact - Increment III)

- Location: 101 NW 1st Street
- Project Description: Preserve existing transit facilities and equipment. Improve service reliability, safety, quality, convenience, and comfort.
- Estimated Capital Cost (2021): \$15.267 million
- Unfunded Project

Historic Overtown/Lyric Theatre (Downtown Development of Regional Impact - Increment III)

- Location: 100 NW 6th Street
- Project Description: Expand capacity and support connectivity. Preserve existing transit facilities and equipment. Improve service reliability, safety, quality, convenience, and comfort.
- Estimated Capital Cost (2021): \$5.802 million
- Unfunded Project

NW 7th St Enhanced Bus Dolphin Station to Government Center

- Location: NW 7th Street
- Project Description: Premium limited-stop transit service along NW 7th Street from the proposed park-and-ride/transit center station at Dolphin Station (HEFT at NW 12th Street) to the Government Center. Service headways: 10 minutes AM/PM peak-hour/20 minutes mid-day.
- Estimated Capital Cost (2021): \$63.790 million
- Unfunded Project

SW 8th Street Enhanced Bus FIU Panther Station to Brickell Metrorail Station

- Location: SW 8th Street
- Project Description: Premium limited-stop transit service along SW 8th Street from FIU Panther Station to the Brickell Metrorail Station. Service headways: 10 minutes AM/PM peak/20 minutes mid-day.
- Estimated Capital Cost (2021): \$72.873 million
- Unfunded Project

Metrorail / Tri-Rail Bus Hub Improvements

- Location: Tri-Rail/Metrorail Transfer Station
- Project Description: Enhance regional connectivity. Develop a multimodal transit hub with convenient access to jobs, housing, and goods/services. Improve quality, safety, convenience, comfort & accessibility. Serve new markets and increase system integration.
- Estimated Capital Cost (2021): \$2.166 million
- Unfunded Project

Systemwide Off-Street Bus Stop Enhancements

- Location: Systemwide (All off-street bus stops, e.g., malls, parks, libraries, hospitals, etc.)
- Project Description: Enhance all off-street bus stops to include new shelters and passenger amenities.
- Estimated Capital Cost (2021): \$2.708 million
- Unfunded Project

Brickell Metrorail Station

- Location: 1001 SW 1st Avenue
- Project Description: The Brickell Station serves as an intermodal station that provides passenger connections with the local circulator (City of Miami Trolley), local fixed-route service (Metrobus), regional bus service (BCT I-595 Express) as well as Metromover and Metrorail. The station area is a linear site that spans between SW 8th Street and SW 13th Street. The primary goal of the Brickell Metrorail/Metromover Station improvements is to enhance passenger and pedestrian access. The recommended implementation plan includes additional bus passenger pick-up/drop areas, additional shuttle pick-up/drop-off capacity, a new designated park and ride area, upgraded pedestrian connections, and improved passenger convenience through wayfinding, upgrade/ADA compliant sidewalks, continuous passenger canopies, and additional bike storage.
- Estimated Capital Cost (2021): \$4.225 million

SW 11th Street Bicycle/Pedestrian Improvements

- Location: SW 11th Street, Brickell Plaza to SW 1st Avenue
- Project Description: Bicycle/pedestrian improvements from Brickell Plaza to SW 1st Avenue.
- Estimated Capital Cost (2021): \$4.421 million

East-West Metrorail

- Location: SW 147th Avenue/ SW 8th Street to Miami Intermodal Center at Miami International Airport
- Project Description: Convert BRT to Heavy Rail
- Estimated Capital Cost (2021): \$1.926 billion

Bicycle and Pedestrian Improvements at all Transitway Stations

- Location: Transitway Stations
- Project Description: Improve Pedestrian and Bicycle connections to the Transitway stations.
- Estimated Capital Cost (2021): n/a

Bus Stop ADA Access Countywide

- Location: Countywide
- Project Description: Currently, there are approximately 2,400 bus stops that , approximately 2,400 bus stops are not ADA-compliant countywide. Civil work must be performed around existing bus stop signs currently not ADA compliant or during the installation of a new bus stop sign to make them ADA compliant. Each site where bus stops are located may have different characteristics. Individual ADA compliance analysis should be conducted at each bus stop.
- Estimated Capital Cost (2021): \$2 billion

Bus and Rail Operations Maintenance Facility Improvements Countywide

- Location: Countywide
- Project Description: DTPW Metrobus, Metrorail, and Metromover support facilities were largely built in the 1980s. Deterioration due to aging is becoming evident. In addition, expansion in some areas is required. DTPW will develop the Needs Assessment and prepare the design plans for the new Track & Guideway building.
- Estimated Capital Cost (2021): \$4.562 million

- Unfunded Project

CITY OF MIAMI COMPREHENSIVE NEIGHBORHOOD MASTER PLAN (CMP)

The Miami Neighborhood Comprehensive Plan stands as a crucial guide, shaping the strategic vision for the City's future. Beyond merely charting the course for Miami's developmental trajectory, it serves as an aspirational framework for residents, employees, visitors, and elected officials alike. In the subsequent section, we will delve into specific policies extracted from the current plan, providing insight into the city's mobility objectives as articulated through its adopted policies.

The City's Neighborhood Comprehensive Plan provides for numerous policies that reinforce the creation of a multimodal environment. Its land use policies encourage the integration and co-location of transportation facilities within private development. It also includes policy guiding the City's land development regulations for the provision of safe and convenient on-site traffic flow by a variety of transportation modes, including pedestrianism, bicycles, automobiles, and transit. Overall, the CMP emphasizes multimodal mobility, coordination with agencies, and design standards to guide the development of Downtown Miami. The CMP was reviewed for pedestrian and mobility-supporting policy, and the selected excerpt is included below.

LAND USE AND MULTIMODAL DEVELOPMENT

Policy LU-1.1.17: Integrate existing and planned multi-modal transportation systems with existing and future developments.

Policy LU-1.1.19: Encourage co-location of transit stations and public common areas of private developments.

Policy LU-1.6.10: Land development regulations and policies for the provision of safe and convenient on-site traffic flow and vehicle parking and will provide access by a variety of transportation modes.

Policy TR-2.1.3: The City will encourage increased density of development within walking distance of transit corridors and Metrorail stations (as referenced in Policy LU-1.1.10. and HO-1.1.9).

Policy TR-2.1.4: The City will ensure a strong interface between (re)developments and the public transportation system by encouraging Multimodal Design Guidelines.

Policy TR-2.2.2: Use land development regulations to designate space in the public right-of-way to accommodate alternative travel modes, consistent with the Miami-Dade County Complete Streets Manual.

Policy TR-2.4.7: The City will require all (re)development in existing and planned transit corridors to be well designed and conducive to pedestrian and transit use.

WATER TRANSPORTATION

Policy TR-2.2.7: Support Miami-Dade County's plans for the provision of water taxi services along Biscayne Bay and the Miami River

Policy TR-2.2.12: Encourage the coordination of the intermodal surface and water transportation access service to the Port of Miami River Working Waterfront.

EXPANSION OF LIGHT RAIL

Policy TR-2.2.10: Continue to seek funding opportunities to implement the planned Light Rail that connects downtown to Midtown and support the regional effort for connections to the City of Miami Beach.

PARKING STRATEGIES

Policy TR-1.2.2: Support County's efforts to increase reliance on parking at satellite park-and-ride lots to reduce vehicle miles traveled downtown.

Policy TR-1.2.4: Provide reduced, shared or alleviated parking requirements within the Land Development Regulations for developments located within a 1/4 mile of transit corridors or 1/2 mile from Metrorail stations or Metromover station:

Policy TR-1.2.8: Develop a citywide transportation master plan that prioritizes projects based on the needs to improve mobility, reduce congestion, promote public transit, and support economic development.

Policy TR-1.4.3: Develop and implement neighborhood traffic calming measures.

TRANSPORTATION MANAGEMENT STRATEGIES

Policy TR-1.5.2: The City will require all new developments to implement transportation control measures to promote a general reduction in vehicular traffic by increasing auto occupancy and transit ridership.

Policy TR-1.5.3: The City will continue to utilize and coordinate with FDOT's South Florida Commuter Services (SFCS) program to establish and implement transportation demand management strategies for all future and existing employers with more than 50 employees.

Policy TR-1.5.4: Large employers such as the University of Miami/Jackson Memorial Hospital, Health District/Civic Center stakeholders, and other local facility operators shall be encouraged to participate in transportation management initiatives and strategies to help increase transit ridership and decrease the demand for surface.

Policy TR-1.5.5: The City will require new large-scale developments defined as all projects that exceed 200,000 total square feet and/or a minimum of 199 total dwelling units to adopt and enforce measures that will reduce the generation of new single-occupant passenger car trips in areas of high-density development, and encourage the use of high-occupant vehicles, including public transit, for home-based work trips.

PLAN COORDINATION

Policy TR-1.6.1.2: Prepare a multimodal transportation master plan to identify timing and cost associated with priority solutions vetted during the visioning process.

Policy TR-2.1.2: The City will assist Miami-Dade County in developing the premium transit projects identified in the TPO's Long Range Transportation Plan (LRTP) within the City limits. The City will utilize land development regulations and other incentives to help direct development where it will best support existing and planned transit services.

Policy TR-2.1.5: The City will encourage the utilization of Road/Mobility Impact Fees on arterials/collectors, transit projects and bicycle facilities within the City, and will include said projects in the LRTP. (See Policy TR-2.2.5.)

Policy TR-2.1.7: The City will encourage Miami-Dade Transit to prioritize its transit facility and service improvements along identified transit corridors and adjacent to Metrorail stations.

Policy TR-2.1.8: The Transportation Element will be updated for consistency with the TPO's LRTP.

BICYCLE FACILITIES

Policy TR-2.2.1: The City will continue to foster the development of bicycle and pedestrian friendly neighborhoods and commercial centers.

Policy TR-2.3.3: The City will prioritize bicycle facilities that are protected as a means of providing safe bicycle facilities for cyclists of all ages and abilities.

Policy TR-2.6.2: Develop and encourage more bicycle paths, protected bicycle lanes, bicycle boulevards, cycle tracks, and sharrows; expand the bicycle network and connect any gaps while promoting alternative travel mode; promote the implementation of enhanced bicycle amenities such as bicycle racks, lockers and bicycle wayfinding signage that helps to encourage more bicycle use. Map TR-6 (within Appendix TR-1) illustrates the existing bicycle facilities in the City. (See Policy IC-2.1.15)

Policy TR-2.6.3: The City will in coordination with Miami-Dade Transit and FDOT develop, prioritize, and implement sidewalk and bicycle infrastructure improvements that are adjacent to transit routes/corridors and transit stations in order to improve connectivity between transit and other non-motorized modes of transportation while promoting the use of alternative travel modes. (See Policy IC-2.1.16)

Policy TR-2.2.3: The City will continue to support the trolley system that provides feeder services and first-mile/last-mile connections.

Policy TR-2.2.5: By December 2020, the City will seek to study and determine the feasibility of establishing a mobility impact fee that would be collected to fund or supplement the cost of transportation system improvements including potential investments in the expansion of the Miami Trolley, complete streets improvements, enhanced bicycle and pedestrian facilities, water taxi services, Light Rail/Streetcar plans, and other transportation improvements identified in future plans. (See Policy TR-2.1.5.)

Policy TR-2.2.6: Support cooperation with private transportation network providers in the enhanced delivery of public transportation services.

Policy TR-2.3.1: The City will encourage a balanced streetscape design program that accommodates all roadway users and pays special attention to non-vehicular modes by focusing on landscaping treatments, pedestrian-scaled lighting, and the construction of sidewalks and bicycle paths along city streets. These improvements will be coordinated with major repairs, roadway resurfacing, and other renovations when possible. (See Policy TR-2.1.4)

Policy TR-2.3.2: Prioritize the implementation of Complete Streets improvements for roadways that lead to transit nodes, are within transit corridors, or connect to bicycle/pedestrian paths.

Policy TR-2.4.1: Coordinate with Miami-Dade County's SMART Plan, to provide premium transit service along roadways in the City including Biscayne Boulevard and West Flagler Street.

Policy TR-2.4.2: Improve regional mobility by regularly coordinating with, but not limited to, Miami-Dade County, FDOT, MPO, South Florida Regional Transportation Authority (SFRTA), the Port of Miami, the Miami River Commission, the Miami International Airport and other public agencies to ensure that future improvements to the transportation network within the City from these agencies are consistent with the City of Miami's MCNP.

Policy TR-2.4.3: The City will improve transportation connections by providing a variety of affordable travel options and by being attentive to the needs of vulnerable and historically marginalized populations.

Policy TR-2.4.4: The City will improve connections to transit by prioritizing sidewalk and bicycle infrastructure investments adjacent to transit facilities.

Policy TR-2.4.5: Continue to coordinate with SFRTA, FDOT, Miami-Dade County, and other local agencies to support and develop plans to implement the Tri-Rail Coastal Link South Florida East Coast Corridor (SFECC).

Policy TR-2.4.8: The City will continue to coordinate with Miami-Dade County to promote public transit and shared transportation services by educating and informing the public of these services via app-based technologies, informative websites, and other means of communication to increase transit ridership.

Policy TR-2.4.10: Market and promote the use of multi modal transportation options using social media, educational opportunities, and any other form of public outreach.

Policy TR-2.5.3: The City will require that transit facilities, such as turn-out bays, transit priority signals, high-occupancy vehicle lanes, bus-only lanes, and transit shelter locations, be included in roadway design proposals, as appropriate, especially for proposals within transit corridors or in close to proximity to transit stations.

Policy TR-2.5.4: The City will continue to coordinate with Miami-Dade County to address the transit needs consistent with transit planning guidelines while considering population growth trends within the City and the metropolitan area.

Policy TR-2.5.5: Annual coordination with Miami-Dade County on improving the efficiency of its public bus transit system.

Policy TR-2.6.1: The City will encourage Miami-Dade County and FDOT to include improved connections between all modes of transportation, with emphasis on connections to non-motorized modes, as they are implementing transportation enhancements within City boundaries.

BICYCLE INFRASTRUCTURE

Policy TR-2.7.1: The City will preclude land uses within 1/2 mile of a transit corridors, Metrorail stations, and Metromover stations that are not conducive to public transit ridership such as car dealerships, car-oriented food establishments, and container yards. Conversely, the City will support the expanded development and design of a transit system that helps shape the desired land use patterns.

Policy TR-2.7.2: The City will regularly coordinate with Miami-Dade County to improve the efficiency of its public transit system by supporting transit-oriented development policies and promoting the use of alternative travel modes within the City. (See Policy IC-2.1.17)

Policy TR-2.7.6: The City will work with Miami-Dade County to promote the transit-oriented development (TOD) policies.

Policy TR-2.8.1: Promote recommendations from the adopted Miami Downtown Transportation Master Plan that aim to rebalance downtown roadways toward transit, and pedestrians.

Policy TR-2.8.2: Through coordination with Miami-Dade County and FDOT, the City will continue to support the monitoring of “high crash” locations on city streets and identify design improvements that may alleviate hazardous conditions, especially to pedestrians and bicyclists. The City will utilize safety as an evaluation criterion when improvements are prioritized and incorporated into the City's Capital Improvement Element.

Policy TR-2.8.3: Provide a properly designed and safe system for pedestrian access by adhering to design standards and procedures which comply with the Americans with Disabilities Act of 1990.

Policy TR-2.8.8: Develop a modal hierarchy for all street classifications within the City that prioritizes the use by pedestrians, bicyclists, transit riders, and motorists. This modal hierarchy will be used to determine the types of Complete Streets accommodations that will be provided within each street classification.

Policy TR-2.9.1: The City will continue to support the implementation of The Underline, the Ludlam Trail, and other 'green corridors', and the use of alternative modes of transportation.

Policy TR-2.9.2: The City will continue to support the implementation of the Riverwalk and Baywalk initiatives.

Policy TR-2.9.3: Develop a comprehensive active transportation plan that integrates bicycle, pedestrian, and greenway components.

Policy TR-2.9.4: Sidewalks and other essential non-motorized amenities and facilities shall be included in development plans prior to receiving approval from the City.

Policy TR-2.9.5: Prioritize enhancements of pedestrian and bicycle circulation, access, and safety in the downtown, near activity centers, along transit corridors, near schools, libraries, and parks.

Policy TR-2.9.6: The City will require that pedestrian mobility be included in Maintenance-of-Traffic (MOT) reviews.

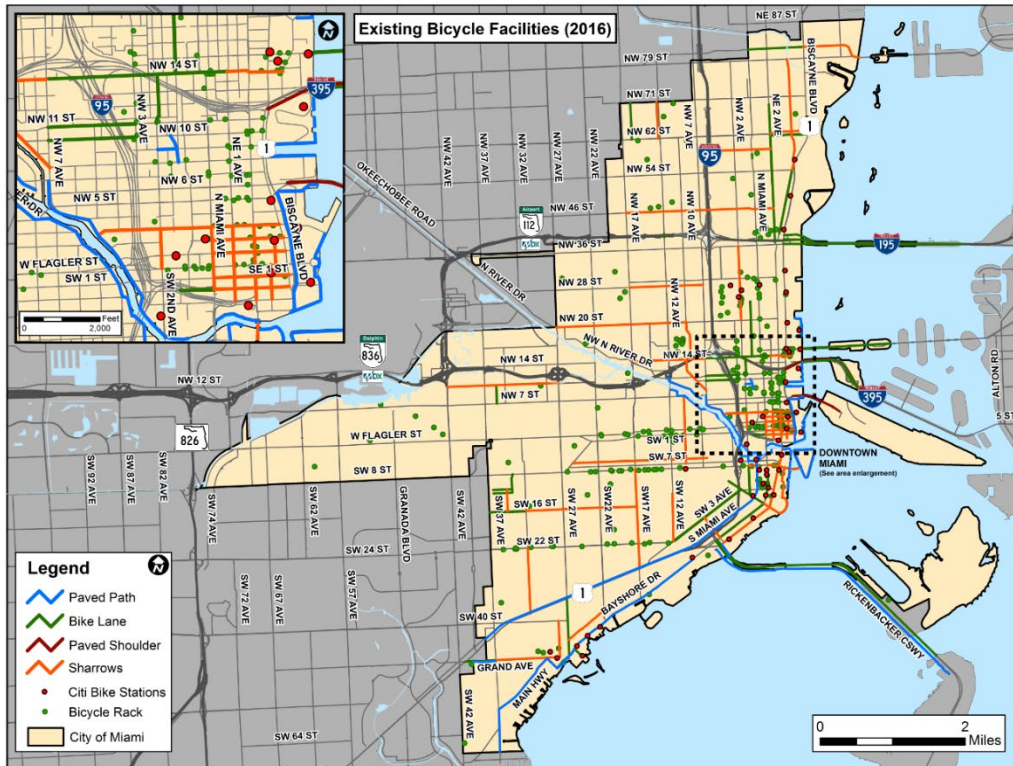
COORDINATION WITH COUNTY AND STATE AGENCIES

Policy TR-2.9.7: Coordinate with Miami-Dade County and FDOT to design the City's thoroughfares strategically to disperse and reduce the length of automobile trips and to encourage walking and bicycling.

Policy TR-2.9.8: The City will encourage the provision of bicycle support facilities, such as secured bicycle racks, personal lockers and showers for new and existing office developments and employment centers to encourage bicycling as an alternative mode for work commutes.

Policy TR-2.9.9: The City will include the expansion and continuity of the bicycle network in capital projects city-wide with a focused emphasis on areas within transit corridors in an effort to reduce the reliance on automobiles and encourage the use of alternative modes of transportation.

Policy TR-2.9.10: The City will remove barriers that prevent the connection of existing bicycle and pedestrian facilities, which include but are not limited to railroad corridors, inadequate roadway conditions, physical obstructions and unsafe conditions to crossing the Miami River, and other physical and psychological barriers. The City will work to connect the gaps in the existing bicycle and pedestrian facilities as illustrated in Maps TR-6 and TR-7, within Appendix TR-1 of the Miami Comprehensive Neighborhood Plan which can be seen here in figures 27 and 28.

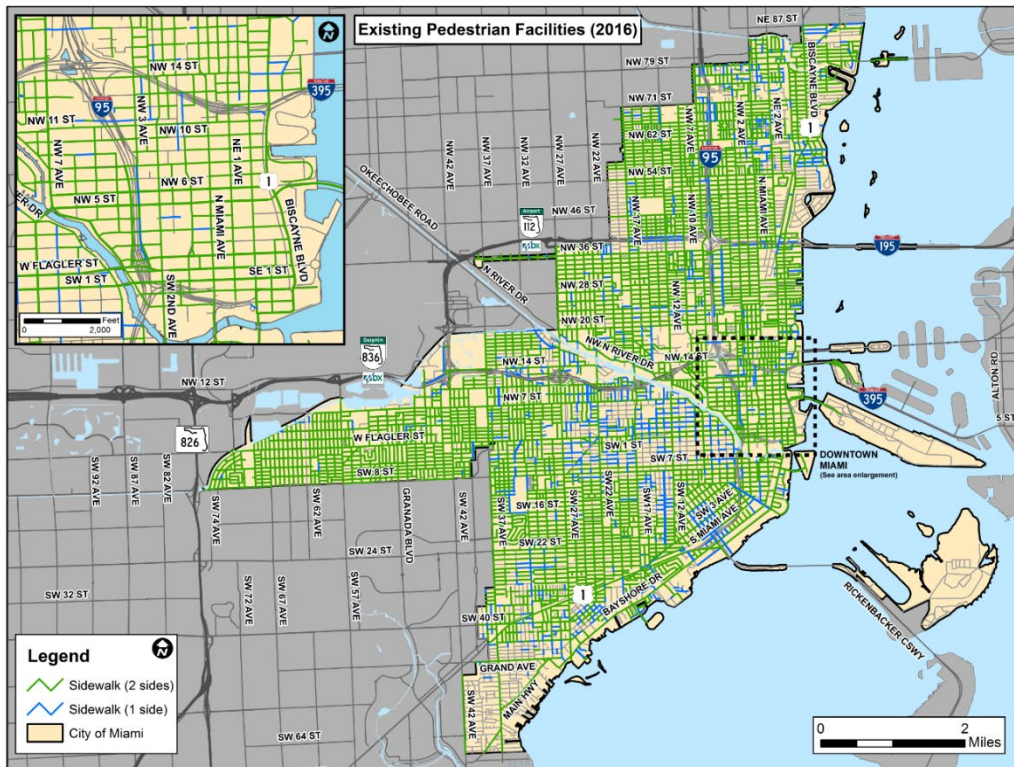


Map TR - 6

Existing Bicycle Facilities (2016)

HNTB

Figure 27. Existing Bicycle Infrastructure in 2016. From the MCNP



Map TR - 7

Existing Pedestrian Facilities (2016)

HNTB

Figure 28. Existing Pedestrian Sidewalks in 2016. From the MCNP

Policy TR-2.9.11: The City will, in coordination with the TPO, FDOT, and Miami-Dade County, update the Bicycle Master Plan every five years to ensure consistency with the LRTP. (See Policy IC-2.1.20)

Policy TR-2.9.12: Bicycle-friendly city as defined by the League of American Bicyclists.

Policy TR-2.10.1: Through the use and integration of cell phone and app-based technologies and in coordination with other public and private agencies, the City will seek to provide real-time travel information to roadway users regarding City services such as parking availability, trolley arrival information, traffic congestion updates, and other transportation related information. The City will aim to build on the individual efforts of universities, the commercial shared-ride sector, commercial data aggregators to generate improved real-time information for public consumption.

Policy TR-2.10.2: The City will, in coordination with Miami-Dade County and FDOT, leverage technology to provide user-friendly trip planning services that include all transportation modes.

Policy TR-2.10.3: The City will, in coordination with Miami-Dade County and FDOT, promote and share all existing transportation-related data, sources, and tools to the public to create an open and user-friendly data repository that could be used for analysis and future private or public technology development that aims to improve the efficiency of the transportation network.

Policy TR-2.10.4: The City will encourage the use and proliferation of electric vehicles for City fleet vehicles and personal automobile and will promote electric vehicle recharge stations in parking garages, park and ride lots, surface parking lots, and strategic on-street parking locations.

Policy TR-2.10.5: The City will seek opportunities to further the implementation of automated and connected vehicle communications technology for City fleet vehicles and personal automobiles to address congestion and safety issues.

Policy TR-2.10.6: In coordination with Miami-Dade County, FDOT, and other public agencies, the City will facilitate the development and maintenance of real-time traffic and traveler data that helps monitor the overall transportation system and evaluate its performance. This information should be made available to the public and should be delivered to users in a familiar way that promotes data sharing, thus benefiting the wider community. (See Policy IC-2.1.23)

Policy TR-2.11.1: The City will, in coordination with Miami-Dade County and FDOT, regularly collect necessary data for better estimating vehicle occupancy rates and means of travel pursuant to updating the person-trip methodology as required. (See Policy IC-2.1.24)

Policy TR-2.11.2: The City will, in coordination with Miami-Dade County and FDOT, periodically collect bicycle and pedestrian count data throughout the City to better understand and analyze the use and demand of the non-motorized transportation network and to develop and implement improvement projects based on needs. (See Policy IC-2.1.25)

Policy TR-2.11.3: The City will, in coordination with Miami-Dade County and FDOT, identify any transit service adjustments and improvements to the bicycle network as to maintain an updated understanding of the existing transit corridors for the interpretation and implementation of the person-trip LOS methodology. (See Policy IC-2.1.26)

PORTS, AVIATION AND RELATED FACILITIES POLICIES

Policy PA-3.2.1: The City shall through the Transportation Element of the comprehensive plan, encourage the coordination of the intermodal surface and water transportation access service to the Port of Miami River Working Waterfront (See Policy TR-2.2.12 and Policy IC-2.1.30).

PARKS, RECREATION AND OPEN SPACE POLICIES

Policy PR-1.1.4: The City of Miami's Level of Service for Parks, Recreation and Open Space is to provide a municipally owned park within a ten-minute barrier-free walk to park entrances by 72% of the city's population as measured by GIS pedestrian network analysis. A ten-minute walk will be defined as a one-half mile, barrier-free distance on a safe pedestrian route. Barrier-free means a continuous walk on a sidewalk or designated pedestrian route that may include crossing streets but does not encounter barriers such as walls or highway embankments that impede passage. Safe pedestrian routes include those that may include crossing of streets with speed limits of up to 40mph. Every three years, the City will develop and update a map that shows which residential areas fall within the ten-minute walk buffer for City-owned parks, and which do not. This map will then be overlaid on a population map showing the most current U.S. Census population data available to calculate if at least 72% of the city's population lives within the ten-minute walk buffer.

Policy PR-1.4.1: The City will continue to work with transit agencies to coordinate the park system and pedestrian connections with opportunities to improve and expand The Underline beneath the Metrorail.

Policy PR-1.4.2: The City will continue to work with transportation agencies to implement the Commodore Trail improvements and the Flagler Trail (FEC Corridor Greenway).

Policy PR-1.4.3: The City will continue to work to implement the Overtown Greenway plan to link the Miami River through Overtown to Downtown.

Policy PR-1.4.4: The City will work with Miami-Dade County and other groups to ensure that greenway, trail and park systems within the City are effectively linked to proposed regional trails such as the Venetian Connector, the Unity Trail, the Perimeter Trail, the Ludlum Trail, and the East-West Trail. The City will continue to advocate for funding of trails identified in the Miami-Dade Metropolitan Planning Organization 2030 LRTP.

Policy PR-1.4.5: The City will designate as scenic transportation corridors those segments of roadways that have significant vegetative features and will encourage the development of bicycle and pedestrian paths along such corridors, where appropriate. Future land development regulations will encourage the provision of sufficient land areas for uses that are compatible with and encourage the flow of bicycle and pedestrian traffic along these corridors.

Policy PR-3.1.1: The City will continue to implement sidewalk and shade tree planting programs along public roadways that connect to parks and other community destinations. The improvements will be targeted to pedestrian routes that provide a ten-minute walk to a park to the greatest number of persons. Tree planting programs will be implemented in accordance with the 2007 City of Miami Tree Master Plan.

Policy PR-3.1.2: The City through the Parks and Recreation Department will work with neighborhood groups to identify the ten-minute pedestrian routes within a half-mile radius of parks that are appropriate for improvements to sidewalks, lighting, street trees, crosswalks and pedestrian count-down signals, and signage, as described in the 2007 Parks and Public Spaces Plan.

Policy PR-3.1.3: Bicycle parking facilities such as bike racks shall be provided in existing and future park projects.

Policy PR-3.2.11: As specified in the City of Miami Charter and Related Laws, and more specifically the Waterfront Charter Amendment, all new development and redevelopment along the downtown waterfront is required to provide a waterfront setback, and those developments that require publicly accessible shoreline walkways, will design them in conformance with the "Baywalk/Riverwalk Design Standards." (See Coastal Management Policy CM-2.1.8.) The City will monitor these areas to ensure continued public access, as required.

Policy PR-3.3.1: All renovations, expansions, and development of park and recreation facilities will be designed in accordance with the Americans with Disabilities Act requirements, including handicapped parking spaces, ramps, handrails, pathways and other accessibility improvements to be appropriately located with respect to recreational facilities.

Policy PR-6.2.2: The City will continue to work toward improving landscaping and pedestrian-oriented amenities along major boulevards, including Biscayne Boulevard, Brickell Avenue, and North 1st Avenue, and other major transportation corridors, to create distinctive images and unifying elements between downtown districts.

BAY WALK AND RIVER WALK

Policy CM-2.1.3: Continue development of the river walk and bay walk along City owned property and continue to require development of the bay walk and river walk along private property through its land development regulations.

Policy CM-2.1.4: Continue to implement design guidelines along the Baywalk and Riverwalk in accordance with the Miami River Greenway Action Plan and other adopted plans as appropriate.

Policy CM-2.1.7: As specified in the Waterfront Charter Amendment and Ordinance Zoning Ordinance for the City of Miami all new development and redevelopment along the downtown waterfront is required to provide a waterfront setback, and those developments within Special Districts (SDs) that require publicly accessible shoreline walkways, will be designed in conformance with the “Baywalk/Riverwalk Design Standards.”

FDOT – D6 FIVE-YEAR WORK PROGRAM

The Florida Department of Transportation (FDOT) District 6, Five-Year Work Program includes the following projects:

FLAGLER STREET SMART DEMONSTRATION PROJECT (450733-1)

In early 2022, FDOT collaborated with the Miami-Dade County Department of Transportation and Public Works (DTPW) and proposed a joint-agency recommendation for the implementation of a demonstration project to provide additional data for the continuation of the Flagler Street Bus Rapid Transit study from Florida's Turnpike to Biscayne Boulevard.

The demonstration project consists of repurposing the outside lanes on Flagler Street and SW 1st Street, from approximately SW 27th Avenue to Biscayne Boulevard, into Business Access and Transit Lanes, and applying appropriate pavement markings, including red surface treatments on the lanes. Figure 29 details the project area and highlights the area of special concern in Downtown. The implementation of the demonstration project will provide additional key performance data that will allow FDOT, Miami-Dade TPO, and Miami-Dade DTPW to jointly evaluate and determine the feasibility of a dedicated curbside rapid transit lane concept. Design is underway, with construction anticipated in July of 2024 with a projected cost of \$5.5 million.

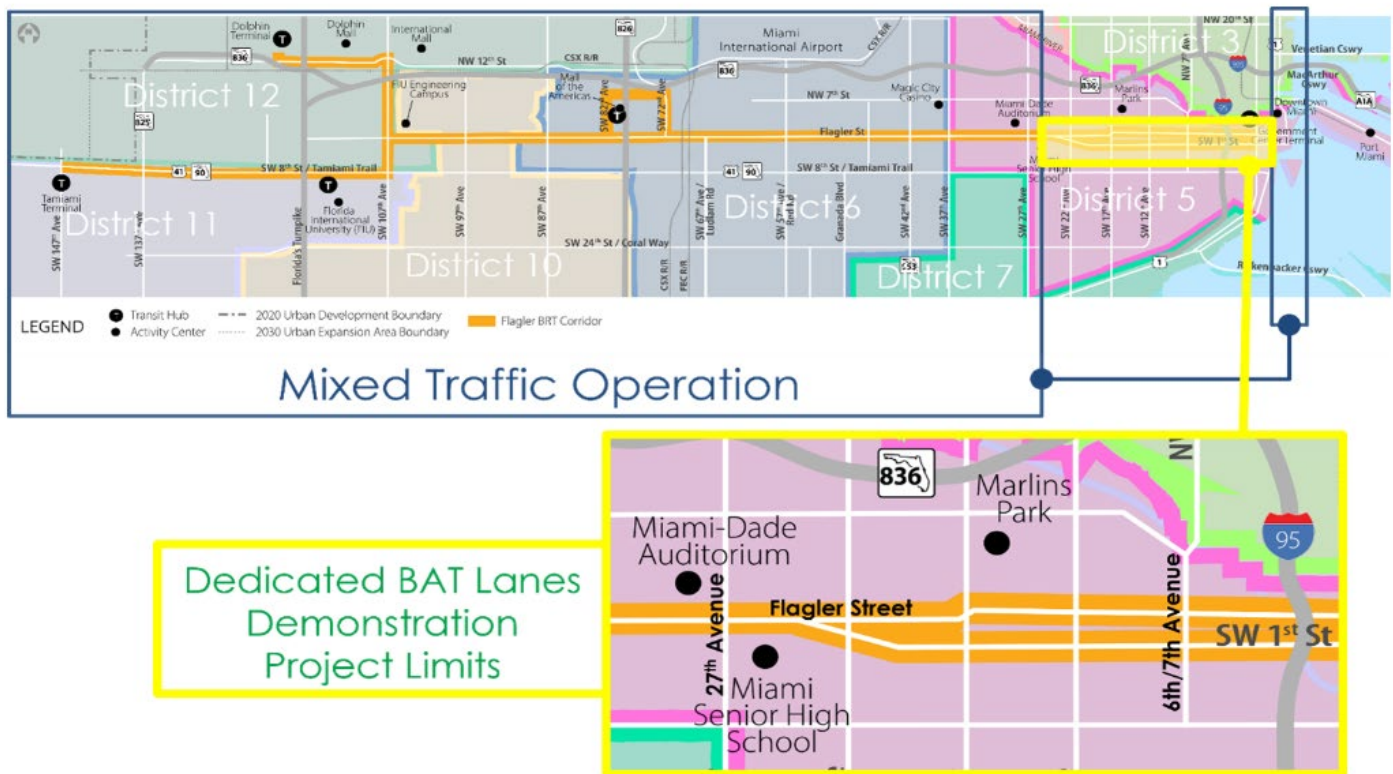


Figure 29. Flagler Street SMART Bus Access and Transit Lanes Demonstration Project

SR 968/FLAGLER STREET PREMIUM TRANSIT PD&E STUY (437782-1)

The Flagler Corridor PD&E Study for implementation of curbside Business Access Transit (BAT) Lane on the easternmost segment of the project corridor. The TPO urged FDOT under TPO Resolution #19-2023 to consider the conversion of travel lanes for Business Access Transit Lanes along the entire Flagler Corridor. The PD&E Study will restart in 2024 at a cost of \$2.7 million.

NORTHEAST CORRIDOR SMART COMMUTER RAIL (452239-1)

FDOT, in partnership with MDTPW, is assisting in funding the Northeast Corridor SMART Commuter Rail project, which is one of six transit corridors established for the SMART Program. The Northeast Corridor will provide service along the existing Florida East Coast Railway rail lines that generally run parallel to US 1 and West Dixie Highway between Downtown Miami and the City of Aventura in the northeast corner of Miami-Dade County. The Northeast Corridor is about 13 miles long, traverses seven municipalities, and connects two busy transit terminals.

The southern terminus of the corridor is the MiamiCentral station located at the northwest quadrant of the intersection of NW 1st Avenue and NW 6th Street. The northern terminus of the corridor is the West Aventura station which opened in 2023. The purpose of the project is based on the need to increase regional mobility, reduce congestion, and provide for the transportation needs of residents within the County. The project would provide service to individuals who might otherwise commute by motor vehicles. The project would also benefit local transportation by reducing the number of

vehicle trips taken and is anticipated to positively impact the regional roadway network and local traffic by providing an alternative transit mode. FDOT will contribute \$34.5 million a year in 2025, 2026, and 2027 for a total contribution of \$103.5 million.

I-95 FROM US-1/SOUTH DIXIE HIGHWAY TO SOUTH OF NW 62 STREET (414964-7)

There are three PD&E projects programmed for improvements along the I-95 corridor to address the deficient operational capacity and relieve existing and future congestion along the SR 9/I-95 corridor. One is within the segment of I-95 from NW 62nd Street to US-1/South Dixie Highway. The analysis reviews the potential impacts of the proposed project on the social, economic, natural, physical, and cultural resources based in the surrounding environment. Other goals of the project include: preserving the operational integrity and regional functionality of I-95 and enhancing emergency evacuation and response times.

Overall, the project will offer more mobility options for motorists and transit users, as it will provide additional capacity along the corridor throughout Miami-Dade. The current PD&E costs in 2025 are proposed at \$6.5 million, and the design costs for 2028 are programmed at \$9.4 million.

FDOT DISTRICT 6 BIKE NETWORK PLAN

The following is a review of the current Florida Department of Transportation District 6 efforts to improvements to the Bicycle Network Plan.

LITTLE HAVANA EAST-WEST ROUTE ASSESSMENT

The purpose of this project is to assess and create a safe link to connect the Miami Dade College Padrón Campus along SW 6th Street from SW 27th Street to the Miami River Greenway near SW 2nd Street. The plan envisions a shared-use path approximately 2.5 miles long, helping to connect Coral Gables with Downtown Miami.

SEPARATED BICYCLE LANES ON SR A1A/MACARTHUR CAUSEWAY

The project recommendation includes enhanced bicycle lanes (striped buffer, delineators, profiled thermoplastic, green markings) to physically separate bicycles and automobiles along I-395 and the I-395 ramp and providing a safe bicycle connection from Biscayne Boulevard (SR5/US 1) to the MacArthur Causeway Bridge (SR A1A).

BUFFERED/PROTECTED BICYCLE LANES ON SR A1A/MACARTHUR CAUSEWAY

The purpose of this project is to enhance the bicycle facilities along the MacArthur Causeway (SR A1A). Currently, facilities include paved shoulders and unprotected bicycle lanes. The project looks to improve the connection between Miami Beach and Downtown Miami with enhanced cycle lanes (striped buffer, delineators, profiled thermoplastic, green markings) for a segment length of 2.7 miles. The process is currently in the design stage, and construction is anticipated to be completed in 2028.

I-195/SR 112/JULIA TUTTLE CAUSEWAY PD&E STUDY

The Florida Department of Transportation (FDOT), District Six is completing a Project Development and Environment (PD&E) Study for I-195 expressway (SR 112/Julia Tuttle Causeway) from NW 12 Avenue to Alton Road (SR 907), and along the local street network surrounding the ramp terminals. The study is part of the Corridor Planning Study for I-195 to evaluate alternatives for operational deficiencies and to accommodate future travel demands. It also includes improvements for pedestrian, bicycle, and transit connections, increased capacity, and improved safety. This PD&E Study

began in 2022 and is expected to be completed by 2025. After the completion of the PD&E phase, the preferred alternative will move to the final design phase.

BICYCLE LANES ON SR 972/CORAL WAY/SW 13TH STREET

The project analyzes the feasibility of accommodating bicycle lanes along SW 13th Street or Coral Way (SR 972) from SW 15th Road to Brickell Avenue.

PROTECTED BICYCLE/PEDESTRIAN FACILITIES ALONG SR 913/SW 26TH ROAD

The project completed in December 2021 looked at the feasibility of the installation of separated bicycle and pedestrian facilities along SW 26th Road connecting SW 1 Avenue to the Rickenbacker Causeway.

STAKEHOLDER ENGAGEMENT

A thorough stakeholder engagement was undertaken to meet with individuals who represent organizations entrenched in the transportation and mobility efforts in Downtown Miami and the greater study area. The organizations below participated in stakeholder meetings. During the meetings, many participants repeated some issues.

<u>City of Miami Transportation Department</u>	<u>Transit Alliance Miami</u>	<u>The Underline</u>	<u>Miami-Dade County Commission</u>
<u>Miami-Dade County Office of Management and Budget</u>	<u>FDOT District 6</u>	<u>Miami Dade County Police</u>	<u>Overtown CRA</u>
<u>Brickell Homeowners Association</u>	<u>Miami-Dade County Office of Resilience</u>	<u>Brickell Advocates</u>	<u>Miami Parking Authority</u>
	<u>Downtown Miami Development Authority</u>		

The following are the issues and concerns raised throughout the stakeholder engagement process, as well as the recommendations gathered from the culmination of all the interviews.

ADA

Concerns

- Transit accessibility is reported to be insufficient for users with disabilities. Beginning with sidewalks, poor maintenance and cleanliness issues have created unpleasant and challenging conditions for wheelchair users to navigate. At Metrorail stations, elevator outages may require riders with disabilities to travel to an alternate station to enter or exit the system.
- The County provides a Paratransit service; however, users have expressed a preference for wheelchair-accessible rideshare options through private providers like Uber or Lyft. Paratransit drivers do not provide door-to-vehicle service, which may be necessary for some users.

Recommendations

- Future station designs should prioritize a central platform layout, which enables the installation of a central elevator and facilitates easier transfers between directions.

- Exploring opportunities for a partnership between the County and private rideshare providers can significantly enhance wheelchair-accessible services.
- Reinstating monthly Special Transportation Services meetings, as these provided an opportunity for disabled riders to relate their concerns and experiences to the city on system improvements.

BICYCLE LANES

Concerns

- Bicycle lanes are a contentious subject because although they offer an alternative mode of transportation, they often replace essential on-street parking and loading facilities. Consequently, vehicles such as rideshares, delivery trucks, and service vehicles frequently encroach on bike lanes. There is minimal enforcement to keep lanes clear for cyclists.
- The bicycle network in Downtown Miami is reportedly underutilized.

Recommendations

- Designated and protected bicycle lanes are needed, especially on routes that provide access to Biscayne Boulevard.
- Improved barricades are necessary to protect the bike lanes from vehicle encroachment while ensuring user clearance.
- Increase bicycle lane usage by allowing other riders, such as e-scooters and e-bikes, to operate within these lanes.
- Microdelivery on cargo bikes can increase bicycle lane usage and help reduce the number of delivery vehicles in the area.
- Enforcement of bike lanes through cameras and AI to issue citations could help ensure compliance and safety for cyclists.
- Expand the bicycle network connecting Downtown to Brickell.
- Restructure the bicycle lanes on Biscayne Blvd.
- Enhance bike accessibility between Wynwood and Downtown Miami with protected bicycle lanes.
- NE 5th and NE 6th Streets, N Miami Ave, and NE 1st Avenue could be transformed into a more trail-like experience rather than traditional protected bike lanes.

BRIDGES AND LAND USE

Concerns

- The issue with the bridge is significant, but the broader concern may lie in the land uses along the river.
- The boat repair industry was noted as causing significant traffic disruptions at bridges because they are able to bypass bridge opening and closing time regulations when tugging boats to repair sites.

Recommendations

- Analyzing new locations for port and shipping repairs, with Watson Island and Biscayne Bay representing opportunities to encourage port and bay utilization.
- Encourage the diversification of land uses affronting the Miami River. Instead, the focus should be on businesses that cater to the needs of Downtown residents.
- Retiming signals at the bridges could help alleviate traffic congestion and improve the flow of vehicles across waterways.

EVENT CONGESTION

Concerns

- Events are a significant factor contributing to traffic congestion in downtown Miami. For prolonged events like the Ultra Music Festival, counterflow measures are set up to manage traffic flow. Miami Heat basketball games can also be problematic for up to an hour before and after the events. For more ad hoc events, social media is utilized to notify residents of road closures.
- During events, congestion from I-395 and I-95 off-ramp traffic is significant, and it extends into Biscayne Boulevard, causing major disruptions in traffic in Downtown. Drivers feeling trapped during event traffic may attempt to escape by driving in the wrong direction on roads or using pedestrian or bicycle paths.
- The traffic lights in Downtown are outdated and are recommended for replacement. This becomes especially problematic during special events, as the pre-timed lights lack the technology to adjust their timing according to traffic flow, worsening traffic issues. For instance, the traffic light frequently malfunctions at Flagler Street and NE/NW 2nd Avenue.

Recommendations

- Law enforcement management needs to be increased during special events.
- The signal network in Downtown should be changed to detection-based instead of timing-based, which could greatly improve traffic flow.
- Consider modifying and reducing feeder ramps and addressing vehicle access into the study area.
- Tunnels could serve as a solution to alleviate congestion and gridlock caused by bridges connecting Brickell and Downtown Miami. One recommendation is to reconfigure the I-95 off-ramps to underground tunnels that emerge onto Biscayne Boulevard.
- Encourage to close physical locations early and have employers facilitate telecommuting or remote work to alleviate traffic congestion.

CONNECTIVITY

Concerns

- Accessibility within the study area to other neighborhoods is a concern, particularly the disconnect between Wynwood and other major neighborhoods like Brickell and Downtown. Additionally, bridging the gap between the sprawl in Miami-Dade is critical to connect the outer-lying residential communities with the urban core.

- Within the study area, connecting major neighborhoods, including Wynwood, Brickell, and Downtown, is critical, as there's a pedestrian transit disconnect between these neighboring areas.
- While the Better Bus Network program aimed to make the system more efficient for more users, it has resulted in the discontinuation of certain routes. Due to these changes, residents are voicing concerns because they no longer have access to certain bus routes.

Recommendations

- Encouraging the expansion of the Metrorail and Bus Rapid Transit (BRT) systems would significantly improve public transportation accessibility and connectivity within the area.
- For the North/South Corridor from Wynwood/Design District to Downtown, BRT and bicycle connections are essential to enhance transportation options and connectivity. Similarly, for the East/West Corridor from Downtown to Miami Beach, improving transportation infrastructure is crucial for smoother movement between these areas.

CONSTRUCTION MANAGEMENT

Concerns

Increased construction in Downtown Miami has resulted in traffic disruptions, road closures, noise pollution, and even increased flooding. While growth and development are welcomed, the prolonged closure of vehicular lanes, such as the southernmost lane on SE 3rd Street at the Aston Martin for almost four years, has detrimentally created bottlenecks along SE 3rd Street onto Biscayne Boulevard. This highlights the need for better coordination and management of construction projects to minimize their impact on traffic and local residents.

Recommendations

- Curbside management should address and reroute sidewalks and bike lanes if impacted by construction or other activities to ensure the safety and accessibility of pedestrians and cyclists.

EQUITY

Concern

- Prioritizing Overtown and Allapattah is crucial due to equity concerns, as many residents in these areas rely on cycling for transportation and may resort to cycling on sidewalks due to insufficient infrastructure.
- Developers should prioritize recruiting and encouraging people who live in Overtown to ensure that the community benefits from the development. Despite the influx of new residents, engaging with and uplifting the existing community is essential.
- Expand MetroConnect services in some areas.
- Very difficult for the indigenous people to Overtown to feel as if they are a part of all this growth. Improved housing is being created right next to them with no opportunity for them to move into them. Developers say they do not discriminate, but they also do not offer opportunities for Overtown people to move into these developments.

- Supporting elderly individuals and those with disabilities, including physical disabilities, through permanent supportive housing initiatives is crucial. Addressing homelessness and housing needs in Overtown is also vital. It is concerning to hear that in a new CRA building, there are only 3-4 Black families residing there. This highlights the importance of ensuring equitable access to housing opportunities for all community members.

Recommendation

- Tree canopy in Overtown needs to be addressed. They need trees and flowers, which need to be installed in close coordination with the City and the County. Mr. McQueen will send existing plans for the improved urban forestry initiative.
- Incentivizing construction groups working in the area to hire from within the community can help address unemployment and promote economic empowerment among local residents. This can be achieved through initiatives such as job training programs, apprenticeships, and partnerships with local workforce development organizations. Additionally, providing tax incentives or preferential treatment for contractors who prioritize hiring from the community can further encourage their participation.
- Support Aging in Place policies.
- Bringing MetroConnect or the Liberty City Trolley to the area could greatly enhance transportation options and connectivity for residents.
- Promote financial stability that fosters mixed-income populations and can contribute to the overall well-being and inclusivity of a community.
- Improving living conditions involves designing communities with safety in mind, incorporating principles of Crime Prevention Through Environmental Design (CPTED) to create environments that deter crime and enhance residents' sense of security.
- Work with townhouses and co-ops to implement measures to preserve housing, safeguarding residents' well-being and enhancing living conditions.
- Support housing initiatives in Overtown and focus on branding efforts to promote the neighborhood's unique identity and character.

LOADING

Concerns

- Delivery trucks, rideshares, and even emergency vehicles frequently enter bicycle lanes.
- There are issues with loading and unloading, as well as parking, on SW 1st Street from SW 2nd Avenue to Miami Avenue, specifically east of Miami Avenue. Additionally, buses often park in the designated bus lane.
- Managing curbside activities and loading on sidewalks needs attention.

Recommendations

- Increased implementation of curbside management strategies to optimize the allocation and use of curbside spaces for various activities such as parking, loading, and pick-up/drop-off.
- SMART Loading Zones: Camera-based solutions for loading zones and being able to charge at the loading zones.
- Partner with the City and County for micro-freight loading zones.
- Enforce off-street loading and encourage building design with additional loading infrastructure on site.

- Code enforcement is encouraged to regulate and enforce code policies to promote the use of loading zones in residential buildings.
- Loading zones shall be included in right-of-way areas to deter Amazon and rideshare drivers from encroaching on bike lanes.
- Robodelivery: Policy regarding autonomous vehicle usage on sidewalks for delivery purposes.
- Implementing automated ticketing in areas prone to traffic congestion caused by vehicles standing in no-standing zones. Additionally, there is a faulty signal at SE 1st Avenue, leading to lane blockage by parked vehicles.

MAINTENANCE

Concerns

- The maintenance of public facilities, including sidewalks, public transit stations, and vehicle fleets, is not only important but also essential for ensuring their appeal and functionality.
- DTPW hosts a webpage providing the outage and maintenance status for Metrorail and Metromover station Elevators and Escalators. The information includes the facility's location, the reason for the outage, and the estimated return date.
- Reporting outages is an onerous endeavor.

Recommendations

- One way to improve the alert system is using technology like QR codes to facilitate notifications of downed systems. For example, a QR code at the entrance of an elevator or escalator landing can be proposed so users can scan and report an outage.
- Chicago Transit Authority provides details for the date of the outage and the transit lines that are impacted. Users can also sign up to receive updates about elevator outages, planned maintenance, and updates when elevators are back in service. The Chicago system also centralizes all alerts on one site for a quick snapshot of the system, providing information on route delays, service changes, or reroutes.
- Considerations shall also be made to centralize the various transit systems under one application to eliminate redundancy and provide current and accurate information.
- Make them more welcoming and aesthetically pleasing.
- Maintenance and cleanliness shall be accompanied by improved lighting to make these spaces safer and more attractive to transit users. Improved lighting shall work in conjunction with monitoring through cameras or physical patrol.

METROMOVER

Concerns

- Concerns regarding the age and maintenance of the transit fleet.
- Increased ridership leading to overcrowded trains and slower service.

Recommendations

- Opportunities to expand the Metromover network should consider north and south routes. It should begin with a connection between E 1st Avenue, the Miami River, and SE 2nd Street. This will improve the comfortability and

safety of riders while traversing. This is a huge opportunity corridor for improvement that could connect the MetroMover to the S 3rd Street MetroMover station.

PARKING:

Concerns

- Parking availability and time of day are factors influencing decisions between walking and driving downtown.
- Limited parking spaces for condo residents in Downtown.
- An abundance of parking included with new building options is provided to developers, tilting the scale.
- Lack of encouraging RTZs (Rapid Transit Zones) has caused reliance on parking structures.
- Aging infrastructure of parking garages and concern of structures not being equipped to handle new larger and heavier standard and electric vehicles.
- “Wedding cake” development, which is a style of building with many different tiers that resemble the namesake, requires larger parking pedestals, which adds to the cost of land, which is an impediment to building garages due to the influx of new cars.

Recommendations

- Expand partnerships with private transportation providers to improve connections from parking garages to destinations within downtown.
- Reduce opportunities for inexpensive parking options to encourage alternate modes of transportation.
- Establish public-private partnerships to redevelop aging parking facilities. For instance, the College Station Garage is being redeveloped with a new garage, commercial liner, and a residential component. The garage will be 40% EV-ready.
- Integrate more micromobility and last mile options and carshares like Zip cars and Cars2go.
- Pilot programs are a great way to test emerging technology. It can allow the Parking Authority to test out emerging technologies without the need for County approvals, which can delay the implementation of new technology.

PEDESTRIAN MOBILITY

CONCERNS

- Enhance pedestrian comfort, as walking Downtown can be affected by heat and rain.
- Brightline to Kaseya Center needs a walk-through on NE/NW 6th Street, as it is highly dangerous for visitors to walk from the arena to the stadium. Crossing Biscayne Boulevard remains perilous, particularly at NE 9th Street and NE 11th Streets.
- Closure of sidewalks and lanes in front of new developments forces pedestrians to enter the street to continue their path.

Recommendations

- Where feasible, use reflective pavement and building material that will help cool pedestrian paths and reduce the impact of urban heat island effects.
- Capitalize on the effects of offshore breezes by channeling wind and creating it with tall buildings.
- Internalize the pedestrian experience by using “Skybridges” that allow for a safer street crossing experience for pedestrians while increasing the flow of traffic. The Omni area could benefit the most from this.
- Encourage the installation of wider sidewalks and dedicated pedestrian plazas within the study area.
- Require new buildings and façade improvements to include building awnings and coverings over public walkways for a more comfortable pedestrian experience.
- City streetscapes in Downtown Miami City streetscapes should include a minimum shade or coverage requirement.
- Update the land development regulations to require new trees in the right-of-way to be of larger canopy tree species.
- Reduce traffic speeds to 25 mph within the urban core.
- Prohibit vehicular traffic from turning right on red.
- Better police management enforcing correct use of crosswalks by pedestrians. People are using crosswalks incorrectly.
- Increased access to parks and green spaces. Extend BayWalk towards the former City of Miami Building.
- Digital kiosks are becoming more and more common, and they could be an opportunity to tie in updates to transit info and wayfinding initiatives.

PORTMIAMI

Concerns

- Port and Routes to I-95 are critical and need to be protected. Trucks carrying hazardous material cannot take the tunnel, but rather take NW/NE 6th Street and turn into Port Boulevard.
- PortMiami accommodated over 7 million passengers in 2023 and handled approximately 1.25 million TEUs (twenty-foot equivalent units) of cargo. The port is still a growing- cargo and cruise operator.
- The I-395 signature bridge construction is causing significant traffic in and out of the port, resulting in an increased use of NE 5th Street and NE 6th Street to access PortMiami through Port Boulevard. Possible considerations include making freight traffic a greater priority and removing existing bike lanes.

Recommendations

- Existing rail infrastructure is actively being used at PortMiami, resulting in an increase in train movements and the potential for a decrease in truck usage.
- It is important to maintain true truck access to I-95, but one that does not have a significant impact on Downtown activities.

- During congestion, the tunnel access closes due to life and safety hazards, and traffic is routed through Downtown and Port Boulevard. Unfortunately, traffic backups cannot be predicted. Improved closure announcements for Miami and Miami Beach are needed.
- A major goal is connecting the Port to mass transit. The SMART plans east/west corridor connection is critical for visitors and connecting major employment centers and facilities like the airport, cargo yards, and the port. The tunnel functionality needs to be optimized.
- Connect Arena to Downtown.

PUBLIC TRANSPORTATION

Concerns

- Existing transit stations for Metrorail and MetroMover are unwelcoming, and the barrier enclosure of these facilities makes them unattractive. This is a major factor in the user experience, and many of these would benefit from beautification and improved signage.
- There is a problem with buses being late in Miami-Dade County: only 38% of buses are on time.
- Delays mostly occur at the start of routes in Downtown Miami.
- Overcoming the hurdle of bus transfers is an issue.
- Public transportation systems may suffer from underutilization, rendering them ineffective and unnecessary. For instance, consider the red bus lane on SW 1st Avenue, which has had low ridership levels for many years.

Recommendations

- More incentives for people to use the program, for example, a discount program for employees of Downtown employers. These can be managed through a central transportation agency.
- Prioritizing the maintenance of existing facilities.
- Installing missing bus shelters, building upon tree canopy network, and enforcing sidewalk clearance.
- Offer a consistent one-stop ride.
- Install dedicated bus lanes for the following corridors: NE 1st Avenue, Biscayne Boulevard, and NE 2nd Avenue.
- Density, ridership, and job centers should be priority areas for bus shelters/stops.
- Give discounts to people who request them because, typically, these individuals are users who are informed, either because of need or because of frequent use. Recommendations made included making transit more expensive in the downtown area, by default, for tourists visiting South Florida.
- Implementing consistent and clear wayfinding signage, including directions to transportation options and expected distances, such as Tri-rail platforms, to enhance engagement with navigation systems.
- Transit fare reduction for Downtown residents.

THE UNDERLINE

Concerns

- The lengthy wait times at push buttons frustrate impatient pedestrians. Prioritizing connectivity to the north, especially building links from the river onwards, can enhance accessibility. This connection should integrate with existing routes like the Flagler Trail and FEC Trail. Notably, Wynwood has already established design guidelines for such developments.

Recommendations

- Existing east-west connections are critical and should be expanded.
- Improved crosswalk facilities.
- Pursuit of technology allowing synchronicity between a trail-user phone and the pedestrian crossing lights to allow users to keep moving preemptively.
- New technology to facilitate the counting of users, demonstrating areas where there are needs.
- Install three-phase signalization for cars, bicycles, and pedestrians, which can be implemented in the future along major crosswalks in preparation for the expected increase in users.

URBAN FORM AND LAND DEVELOPMENT REGULATIONS

Concerns

- Families living downtown have access to many amenities, including shopping, recreational, schooling, dining, and the arts. While these amenities are located within walking distance for many, a car is still necessary to access other parts of South Florida.
- Guidelines for development shall encourage parking behind buildings, enhanced landscaping, and permitting less development that does not contribute to bicycle and pedestrian facilities.
- Residential units in downtown areas are frequently overly commercialized, with residents renting out their units for special events.
- The zoning code is highly prescriptive.
- In the inland area of the downtown urban core, specifically in the Flagler Street project area, several developments have been completed. This includes the eastern section of Flagler Street, which now features a food hall. However, certain land uses in the vicinity discourage activity. Until these are transformed, downtown residents continue to face challenges such as poor pedestrian safety infrastructure, lack of affordable housing, and many “food deserts.”

Recommendations

- Adjusting the land uses to promote a mix of activities between the Brickell and Vizcaya Metrorail stations could enhance the demand for the use of the trail.
- Reviewing the zoning regulations around the Miami River could help encourage non-industrial, water-dependent, and related activities.

SAFETY

Concerns

- The Safe Routes to School program was awarded \$60 million to implement over 24 projects to introduce pilot programs and plan for safe routes in Miami-Dade County. The funding includes approximately \$460,000 for the implementation of safe routes to school program for Booker T. Washington Senior High School.
- Studies indicate that 33% of vehicular traffic stems from trips under 3 miles.
- At the intersection of NW 19th Street and N Miami Avenue, opposite the Miami City Cemetery, there is a significant safety concern due to bike tires getting stuck in the Brightline tracks, posing a risk to cyclists.
- The downtown urban core experiences relatively few bicycle accidents, largely due to the generally low speed of roadways. However, almost all fatalities are attributed to bicycle or pedestrian errors. Strategies to educate and mitigate inappropriate or dangerous behaviors are essential.
- An emerging trend is parents using e-scooters to drop off their children at school.
- The prevalence of extreme heat poses a significant risk, with temperatures becoming dangerous at 90 degrees Fahrenheit. This danger escalates throughout the year, with an increase in the number of days experiencing a heat index of 105 degrees Fahrenheit, rising from an average of 6-7 days annually to 25 days.
- There's a concerning issue with development projects blocking lanes and sidewalks while working on new developments, which poses safety hazards.

Recommendations

- The School Board and Miami-Dade Police should engage with school officials to provide guidance to parents on safer alternatives. There's a pressing need for enhanced motorist education and promotion of laws that prioritize general safety, such as yielding to emergency vehicles.
- Improved lighting should be complemented by surveillance through cameras or physical patrols. Long-term infrastructure planning should prioritize thermal comfort and safety, incorporating elements like shade structures, green infrastructure, increased permeability, and enhancements to gray infrastructure. Additionally, the design should consider the channeling of breezes and shade by tall buildings, as well as the use of reflective materials for pavers and other cooling materials.
- Access to drinking water should be made available in public areas, especially near stadiums and daytime event locations, to ensure the well-being of pedestrians and cyclists.

SCOOTERS

Concerns

- Over a million scooter rides were recorded within 4 months during their pilot program in Miami, Florida. Scooters are technically classified as bikes by Florida Statute Title XXIII, Chapter 316, Section 2128, and can operate on bicycle lanes. However, riders operate the e-scooters, which can reach speeds of 15 mph on sidewalks, impacting pedestrian flow.

- The scooters pose a threat to pedestrians and to the riders when they are used on sidewalks. Obstacles such as waste bins, benches, or bus stops can cause those riding scooters to crash, potentially causing significant injuries and damage to public/private property.

Recommendations

- More electric scooter-specific facilities are needed to accommodate the increasing demand.
- There is a need for more education and enforcement.

CITY OF MIAMI TROLLEY

Concerns

- The trolley system is in dire need of an update, as it has not been modernized in years or even decades. There is a plan to revisit trolley routes to address concerns driven by the county's desire for modification.
- One issue that needs attention is the redundancy in the current system, particularly regarding access to the port and transportation around Downtown and Brickell. For example, the Coral Way trolley route can take up to 45 minutes, which poses a challenge in encouraging ridership, especially for Brickell residents.

Recommendations

- It is worth considering whether the current route configuration is the most efficient way to serve the needs of Brickell residents and whether adjustments could be made to streamline service and improve accessibility.

WATER TAXIS

Concerns

- In Miami, challenges arise due to the presence of federally regulated waterways, which can complicate the establishment of feasible routes. Past attempts to address this issue have been thwarted by rejections from DERM, often citing the outdated Manatee Protection Program (MPP), which has been in place for 30 years. Additionally, obtaining Marine Operating Permits (MOPs) can be a formidable task, although they are more readily granted to cargo and large-scale passenger ships.

Recommendations

- Broward and Palm Beach Counties serve as excellent models for emulation in terms of their transportation systems.
- Enhancing access to Miami Beach through water taxis could be a promising solution, particularly considering the significant challenge of finding parking in the area.
- Explore opportunities to update the FWC's Manatee Protection Program (MPP) report for consideration of water taxi services to and from designated areas on Biscayne Bay.

PLANNING AND ENGINEERING STUDIES

A review of major planning and engineering studies is provided in the following section, which lists major findings and needs recommended by the study findings.

OVERTOWN WYNWOOD BICYCLE PEDESTRIAN MOBILITY PLAN

Located just north of Downtown Miami, the Overtown and Wynwood areas are generally bounded by NW 36 Street to the north, NW 3rd Street to the south, N Miami Avenue and NW 1st Avenue to the east, and NW 7th Avenue and the Miami River to the west. Overtown and Wynwood are composed of several neighborhoods, including Old San Juan, Midtown, Wynwood Industrial District, Rainbow Village, Northeast Overtown, Town Park, Civic Center, Media Art Entertainment, Culmer, Southeast Overtown, Park West, and Lummus Park.

These central urban neighborhoods have numerous mobility needs to serve the existing population, which largely relies on transit, walking, and bicycling. In addition, the area continues to attract many new residents who want to enjoy an urban lifestyle where walking, bicycling, and convenient access to public transit are the most viable forms of transportation. The study aimed to identify potential and feasible improvements to enhance mobility and safety for pedestrians and cyclists.

Bicycle and pedestrian mobility recommendations were developed based on the prior work tasks of the Plan, field observations, public meeting responses, survey results, and steering committee input. All improvements were developed under an overarching principle to support and prioritize pedestrians and bicyclists within the area through the use of Context Sensitive Solutions (CSS) and complete streets principles. Context-sensitive solutions are an approach to advancing transportation programs and projects in a collaborative manner and in a way that fits into the community and environment.

A survey completed of area residents noted interest in safer biking through reduced speed limits, increased dedicated bicycle facilities, and closing the gap between mixing links in the sidewalk network. A complete list of the recommended improvements is provided in Table 12. The list includes area-wide improvements, site-specific recommendations, and non-engineering improvements. Area-wide and site-specific recommendations like improved sidewalk networks and the NW 5 Street bicycle lanes have been completed. The study also includes recommendations to address the prevalent railroad crossings in Overtown and Wynwood. Table 13 highlights the recommendations from the study.

AREA WIDE IMPROVEMENTS	
1.	Crosswalks
2.	Sidewalks
3.	Traffic Calming
4.	Curb Extensions
5.	Curb Ramps
6.	Pedestrian Signalization
7.	Bicycle Lanes
8.	Contraflow Bike Lanes
9.	Bike Boxes
10.	Shared Lane Markings (Sharrows)
11.	Bicycle Parking
12.	Neighborhood Slow Zone
13.	Resurfacing/Restriping
14.	Bus Stop Improvements
15.	Enhanced Green Space
16.	Bicycle-Friendly Business Districts
17.	Pedestrian Shade Treatments
SITE-SPECIFIC IMPROVEMENTS	
18.	Bicycle-Friendly Railroad Crossing
19.	Dutch Style Tunnel at FEC
20.	NW 5th Avenue Non-Motorized Connection
21.	NW 5th Street Cycle Track
22.	NW 1st Avenue Bicycle Boulevard
23.	NW 5 th Place/NW 21 st Terrace Bicycle Boulevard
24.	NW 5th Avenue Road Diet with Bike Lanes
25.	NW 29th Street Road Diet with Bike Lanes
26.	N Miami Avenue Road Diet with Bike Lanes
27.	NW 3rd Court/NW 3rd Avenue Road Diet with Bike Lanes
28.	One-Way Pair Pilot Program
NON-ENGINEERING IMPROVEMENTS	
29.	Education Improvements
30.	Encouragement Improvements
31.	Enforcement Improvements
32.	Evaluation and Monitoring

Table 12. List of Recommended Improvements

Project 18: Bicycle-Friendly Railroad Crossing	
Project Description	The Florida East Coast (FEC) railroad crosses N Miami Avenue at an acute angle at N 19 th Street, which causes the potential for a bicyclist's front wheel to get caught in the tracks. Installing pavement markings, like the "jug handle" shown below, that lead bicyclists to cross the tracks at a safer angle can reduce the risk of losing steering control.
Lead Agencies	City of Miami, Miami-Dade County Public Works and Waste Management Department
Notes	The additional pavement required to install the "jug handle" pavement markings is available on the west side of the intersection at N 19 th Street. Additional pavement may need to be installed on the east side of the intersection.
Implementation Timeframe	Short Term (3-5 years)
Implementation Strategy	Implement as part of the proposed road diet along N Miami Avenue, which includes bike lanes
Implementation Cost	\$\$
<p><i>Acute angle railroad crossing on N Miami Avenue at N 19th Street</i></p> <p><i>Example of "jug handle" treatment at a railroad crossing. (Note: the color scheme in the U.S. would be white edge line striping with green color bike lanes)</i></p>	

Project 19: Dutch Style Tunnel at FEC	
Project Description	Create a bicycle and pedestrian connection across the Florida East Coast (FEC) rail line by constructing a Dutch style tunnel underpass. Additional grade crossings along the FEC for pedestrians would help reduce illegal crossings over the rail line.
Lead Agencies	City of Miami, Miami-Dade County Public Works and Waste Management Department, FEC
Notes	A potential lower cost alternative is an at-grade crossing; however, it is likely that existing crossings would need to be closed to add an at-grade crossing. <ul style="list-style-type: none"> Recommended crossing location at NE 24th Street
Implementation Timeframe	Long Term (5+ years)
Implementation Strategy	Potentially implemented as part of the Coastal Link project
Implementation Cost	\$\$\$\$

Table 13. Recommendations for bicycle and rail infrastructure

The Wynwood Overtown Mobility Study also included a project recommendation for a pilot program to pair one-way streets to improve vehicular and pedestrian flow, east and west, through the northern portion of the study area. Table 14 indicates the roadways recommended for conversion, which include streets from NW 28th Street south to NW 21st Street, between the segments of N Miami Avenue and NW 5th Avenue. The roadway conversions are encouraged to be coupled with bicycle and pedestrian improvements to ensure vehicular traffic does not dominate the area.

Project 28: One-Way Pair Pilot Program	
Project Description	To improve vehicle, bicycle, and pedestrian traffic flow in the Wynwood area, convert the roadway segments listed below to one-way streets with bike lanes.
Lead Agencies	City of Miami, Miami-Dade County Public Works and Waste Management Department
Notes	Features include: <ul style="list-style-type: none"> Creates more space for elements for other road users such as bike lanes and wider sidewalks Reduces the number of conflict points at intersections <p>See Table 15 for recommended locations. A traffic study would be required to assess the impact of these one-way conversions.</p>
Implementation Timeframe	Short Term (3-5 years)
Implementation Strategy	Include proposed study and improvements in Capital Improvements Program (CIP)
Implementation Cost	\$\$\$
<p>Proposed one-way pair street network</p> <p>Example of a one-way street with bike lane and on-street parking</p>	

Table 15: Recommended One-Way Conversions			
NW 28 th Street from NW 5 th Avenue to N Miami Avenue - EB	NW 27 th Street from NW 5 th Avenue to N Miami Avenue - WB	NW 26 th Street from NW 5 th Avenue to N Miami Avenue - EB	NW 25 th Street from NW 5 th Avenue to N Miami Avenue - WB ⁽¹⁾
NW 24 th Street from NW 5 th Avenue to N Miami Avenue - EB ⁽¹⁾	NW 23 rd Street from NW 5 th Avenue to N Miami Avenue - WB ⁽¹⁾		

Notes: ⁽¹⁾ Included in the Wynwood Industrial District One-Way Street Conversion and Signage Project.

Table 14. From the Overtown Wynwood Bicycle and Pedestrian Mobility Plan, project recommendation for one-way road conversions

THE PROMENADE SPECIAL AREA PLAN

The Promenade Special Area Plan was completed for the City of Miami in January 2004. It envisioned a promenade along the former railroad right-of-way located mid-block between NE 11 Street and NE 10 Street, providing a pedestrian connection between NW 1 Avenue and M. A. Ferré Park. The Promenade plan consist of a series of interconnected pedestrian spaces which lead from Overtown to the park. Following the tradition of pedestrian streets found in European and pre-World War II cities, the Promenade is envisioned as a series of courtyards and plazas connected by pedestrian "paseos" or passages. In Florida, examples include the courtyards of Via Mizner adjacent to Worth Avenue in the Town of Palm Beach, FL, and the passages that connect Center Street to Park Avenue in Winter Park, FL. Each of the Promenade's public spaces will have its own feel and scale and offer opportunities for public art and interpretive installations that are relevant to Miami's culture. Under the plan, redevelopment is proposed in a compact form to encourage new buildings to blend with existing structures and to accommodate a mix of uses. Figures 31 and 32 detail the project area and a rendering of this plan. The plan is envisioned as a five-year transformation that would provide walkable linkages and activities in an underutilized space within the city's urban core. Land use, building heights, and building form need to be refined to enable implementation of the Plan. Recommendations include revisiting maximum building footprints and lot depth requirements for lots 100 feet deep, floor area ratios, requirements, and land assembly to effectuate the project's development. Similarly, the minimum parking requirements are inappropriate given the unique nature of the urban-core district.

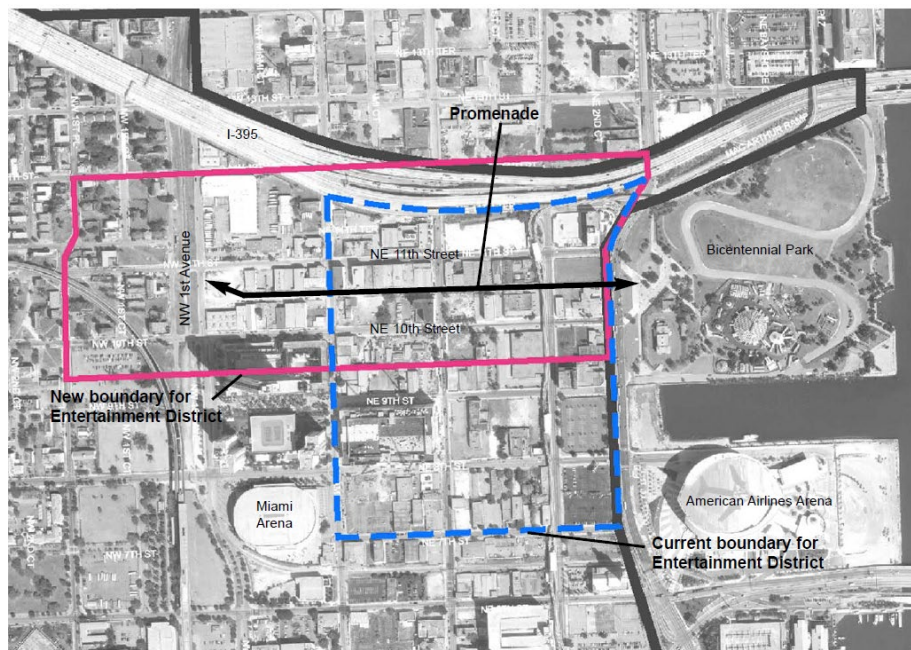


Figure 30. Map of Promenade segment in downtown Miami.



Figure 31. Rendering from the Promenade study showing the existing conditions and proposed improvements under phase 1.

DRAFT

OVERTOWN GREENWAY PLAN



Prepared in 2002, The Overtown Greenway was conceived as a way to complete the necklace of parks encircling the city of Miami and to improve access to amenities like the Miami River Greenway, Bayfront Park, Ferré Park, Margaret Pace Park, and the BayWalk that links these spaces as seen in Figure 33. The Overtown Greenway is envisioned to bring these natural and cultural shoreline amenities within comfortable walking distance of Miami's inland neighborhoods. Major themes of the greenway include connection for pedestrians, cyclists, and transit users, the importance of the existing community, and the future envisioned for the area.

Figure 32. Proposed Overtown greenway segment connecting historic Overtown to the Bay following the path of the existing railway corridors.

The proposed Overtown Greenway follows the path of the two rail corridors that traverse Overtown, including the Metrorail and Florida East Coast (FEC) railway, as well as NW 1st Avenue, NW 11th Terrace and NW 11th Street -- the streets flanking these corridors. The greenway's key components are improvements within the rail corridors and streetscape. The proposed T-shaped alignment follows the Metrorail from NW 7th Avenue to NW 1st Avenue, where it follows the FEC corridor south, connecting to Flagler Street. To the north, the plan envisioned access up to NW 20th Street and to the Wynwood district via NW 1st Avenue.

Streetscape enhancements to the NW 9th Street Promenade and NW 11th Street were determined by the study to be necessary to link the Overtown Greenway to Manuel A. Ferré Park and the Biscayne Bay. Considerations for improvements include connections to the Ninth Street Pedestrian Mall, a pedestrian bikeway along NW 11 Street, and extending a pedestrian connection from Culmer Station into Overtown. Figure 34 shows the proposed configurations through Historic Overtown, connecting existing points of interest and planned projects.

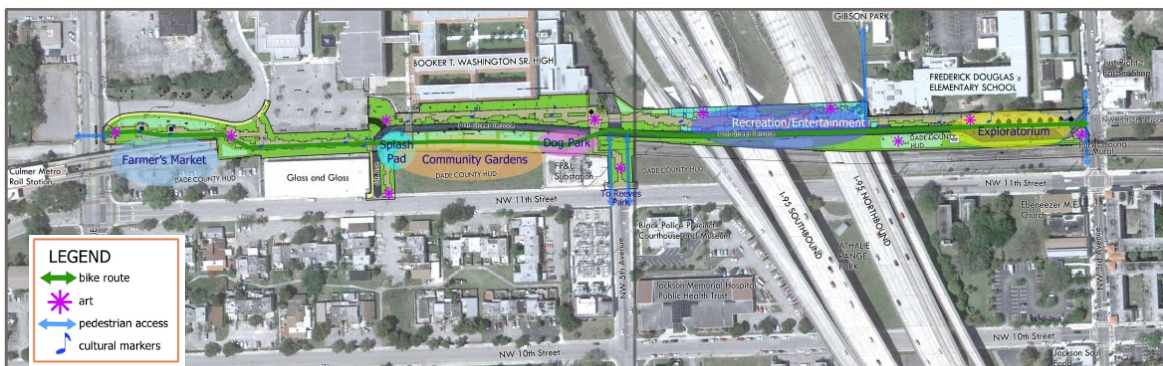


Figure 33. Proposed improvements for the Overtown Greenway segment located on NW 11th Terrace extending from NW 7th Avenue to NW 3rd Avenue.

PAVED PARADISE

The Transit Alliance Miami is spearheading efforts to analyze the local minimum parking requirements and how they impact the urban landscapes. Figure 35 highlights the message underscored by the study, where parking and vehicle-centric design have resulted in a sea of parking within Downtown Miami. The study found the United States has approximately 4 parking spots available per car, yet much of it is unused. This harms housing affordability, small business operations, and the environment. The study argues that minimum parking requirements are not rooted in rational studies or account for the local context. For example, nearly 45% of Florida households have one car or no car, yet city codes require an average of 1.5 to 2 parking spaces per new unit. For residential purposes alone, Miami-Dade County’s existing codes would require 500,000 excess residential parking spots. Which, according to the findings, is the equivalent of the land area of all of Downtown Miami’s office space.



Figure 35. Image from Paved Paradise study highlighting Downtown Miami is about 20% parking lot.

The study finds that consumers visit more local businesses and spend more per month when they can walk versus having to drive to access such spaces. The finding is contrary to development practices today, which often mandate the construction of expansive surface lots, which then typically deter transit and pedestrian accessibility. Radical solutions presented include eliminating minimum parking requirements. In Fayetteville, Arkansas, commercial parking minimums were repealed in 2015, which inversely resulted in multiple new businesses opening in previously abandoned or unused spaces. In Sandpoint, Indiana, the repeal of parking minimums resulted in the protection of small businesses that would otherwise be razed to accommodate new parking.

The Transit Alliance Miami’s study also looks into the impact of parking lots on the environment. Parking lots cause urban heat islands by making the air temperature over and around their surface 7 to 9 degrees Fahrenheit hotter than the ambient temperature. The study estimates that over 75% of Miami is considered to be within a heat island. Parking lots also exacerbate stormwater runoff. According to the South Florida Water Management District, polluted runoff from stormwater is one of the most harmful sources of pollution to Florida’s waterways, with flows estimated at one inch of rain falling on an acre of hardened surface, producing 27,000 gallons of runoff. Success stories are highlighted in the findings. For instance, in cities where parking minimums were

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eliminated, affordable housing development proposals increased fivefold. In Cutler Bay, Florida, reducing parking minimums directly contributed to the financial feasibility of new senior living communities.

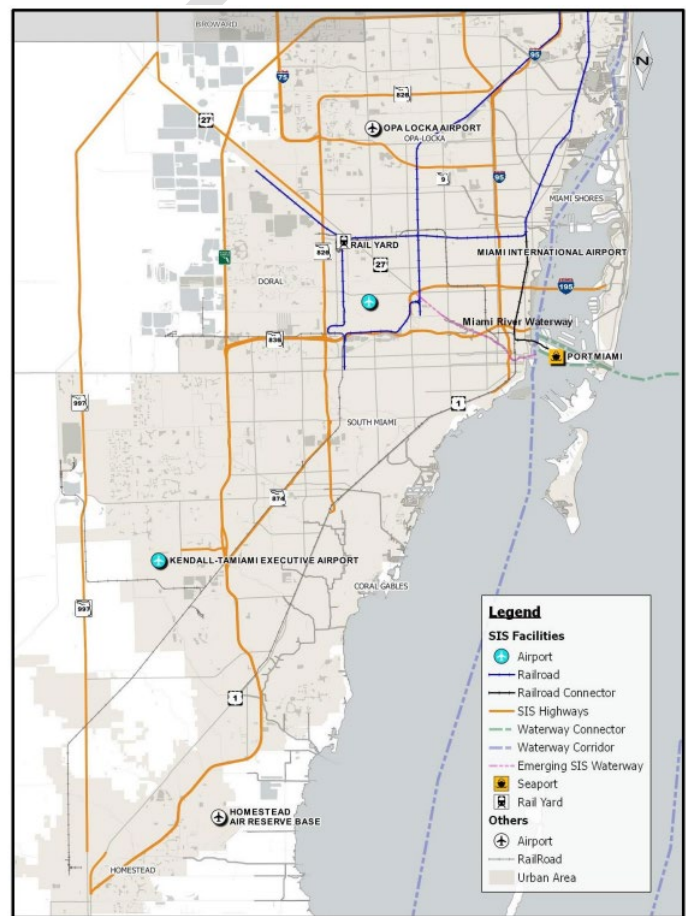
MIAMI-DADE COUNTY FREIGHT PLAN UPDATE

Miami-Dade County has an extensive freight system encompassing all major modes of transportation. The overall network includes a system of roadways, railways, waterways, connectors, and freight hubs. Many of the freight system network facilities are designated as Florida Strategic Intermodal System (SIS) or Emerging SIS facilities. The SIS was adopted by Florida in 2003 to focus the State's transportation resources on the facilities most significant for interregional, interstate, and international transport of people and goods. The SIS represents the highest priority network of transportation facilities because of their importance to the State's economy and mobility.

The local freight network was updated from the 2014 plan to include the Miami River designation as a SIS Emerging Waterway. Figure 36 shows the extensive Miami-Dade County freight network. The current SIS incorporates all aspects of freight needs: commercial airports, deep-water seaports, rail terminals and corridors, waterways, and highways. The following Miami-Dade County facilities have been designated within the study area as part of the SIS.

- Seaport: PORTMiami
- Waterway: Miami River (Emerging SIS)
- Roadways: Designated highways consist of Interstates, toll roads/expressways, and other key State highways
- Connectors: Each of the freight hubs has roadway, waterway, and/or railway connectors designated to provide access to the SIS corridors.

A review of projects proposed in the document shows the PortMiami improvements for the 2026 to 2030 period. First, it looks to geometrically modify the port access from I-395 to PortMiami via NE 2 Avenue and NE 5 Street. Additional short term freight projects in the study area include signal timing improvement at NE 2 Avenue and NE 5 Street, and at NE 1 Avenue and NE 6th Street; a PD & E study for a Brickell Avenue bridge tunnel, and the installation of PortMiami River wayfinding sign system. Table 15 catalogs the project Needs identified in the 2018 Freight Plan update for the PortMiami Seaport.



Source: Marlin Engineering Inc.

Figure 34. Existing County freight System per the Freight Plan Update from 2018.

2018			
MIAMI-DADE COUNTY			
FREIGHT PLAN UPDATE			
Project Type	Project	Description	Source
Seaport	POM Gantry Crane Rail Repair and Replacement	Maintenance/Other	(13)
	POM Bays 148-195 Seawall Upgrades	Maintenance/Other	(13)
	POM North Bulkhead Repairs	Maintenance/Other	(13)
	POM Bays 0-65 Seawall Rehabilitation	Maintenance/Other	(13)
	POM SFCT Cargo Yard Densification (eRTG)	Capacity	(13)
	POM Cargo Gates	Capacity	(13)
	POM Procurement Super Post-Panamax Gantry Cranes	Capacity	(13)
	POM Seaboard Redevelopment Phase V	Capacity	(13)
	POM Shed E Demolition and Paving	Capacity	(13)
	POM Shed G Demolition and Paving	Capacity	(13)
	POM Seaboard Building 1306 Demolition and Paving	Capacity	(13)
	POM Seaboard Building 1630 Demolition and Paving	Capacity	(13)
	POM Federal Inspection Facility	Capacity	(13)
	POM Inland Terminal	Capacity	(13)
	POM Port Crane Management Facility	Maintenance/Other	(13)
	POM Facilities Move	Maintenance/Other	(13)
	POM Improvements to Gate Complex	Seaport	(18)
	POM Bays 177-183 Sea Wall Construction	Berth	(18)
	POM Repair to Vehicular Bascule Bridge	Seaport	(18)
	POM Redevelopment of Port Blvd.	INROAD	(18)
	POM Gantry Cranes Acquisition Program	BERTH	(18)
	POM Expand and Modernize Port Utilities	Seaport	(18)
	POM Cargo Terminals	Seaport	(18)
	POM Extend Railroad Tracks	Seaport	(18)
	POM Roadway Realignments	Seaport	(18)
	POM Channel Modifications	Seaport	(18)
	POM Berth O - West New Apron	Berth	(18)
	POM Channel Modifications	Seaport	(18)
	POM Crane Maintenance Facility	Seaport	(18)
	POM Cargo Yard Stacker Cranes Program	Seaport	(18)
POM Cargo Yard Improvements	Yard	(18)	
POM Fill SW Corner (Transshipment Yard)	Transshipment yard	(18)	
POM New Berth SW Corner 1	Berth	(18)	
POM New Berth SW Corner 2	Berth	(18)	
POM Cargo Berth 5	Berth	(18)	
POM Cargo Berth 6	Berth	(18)	
POM Cargo Berth 7	Berth	(18)	
POM Multimodal Terminal	Intermodal Container Transfer Facility	(18)	

Sources: (1) 2014 Miami-Dade County Freight Plan Update (2) FDOT JACIP application 2/2018 (3) MDAD meeting 10/4/2017 (4) MIA CORE Program Presentation 11/2/2017 (5) PORTMiami Powerpoint at FTAC 1/10/2018 (6) Bob LaDoux, FEC 1/11/2018 MD Freight Plan Update Study Advisory Committee meeting (7) FTE Tentative 5-year Work Program FY19-23 Summary of Projects as of 9/29/2017 (8) Freight Plan Update SAC mtg 3/9/2018 (9) Draft Doran Area Freight Plan FDOT D6 (10) The Town of Medley Freight Mobility Improvement Plan FDOT 6: Final Report (11) City of Opa Locka Freight Implementation Plan FDOT 6: Final Report (12) FDOT SIS First 5-year Plan FY 18-22 (13) Alissa Penelozo, PORTMiami, email 8/31/2017 (14) MDX FY 18-22 Work Program Board Approved 1/31/2017 (15) Miami-Dade 2040 LRTP 10/23/2014 (16) FDOT SIS Second 5 - year plan FY 23-27 (17) FDOT Strategic Intermodal System Cost Feasible Plan 2034-2040 (18) FDOT Strategic Intermodal System: 2045 Multi-Modal Unfunded Needs Plan (19) Miami River Freight Improvement Plan (20) FDOT Final Draft Review and comment 05/14/2018

Table 15. PortMiami Seaport Project Needs identified in 2018 Freight Plan.

Conclusion

The South Florida region, particularly Miami, has exploded with development since the original mobility study was completed in 2003. The comparison of population projections and transportation modeling from the original study confirms that the observed growth was not anticipated by the forecasts developed for the study area. Increased housing, employment opportunities, and commercial development have truly transformed the City and its urban core into a top-tier destination for residents and visitors.

While the study evaluated the growth in residential development and employment opportunities in Downtown Miami and Brickell, an equity analysis demonstrated that the trends for improved conditions and successful redevelopment success have not been equally observed in the study area. Census tracts at the periphery of the study area mirror the legacy of redlining and historically racist policies that segregated the neighborhoods in Miami by race and economics. Many of the neighborhoods surrounding the Downtown Core are gentrifying but still face challenges related to pollution, climate, housing needs, and education attainability.

The 2003 recommendations were also evaluated in context with the changes that have occurred in the past 20 years since the study was completed. Approximately a third of the recommendations that were envisioned in the 2003 study were identified to be completed or are in process, another third was programmed in the 2045 LRTP, and the remaining recommendations were either not implemented or need to be further analyzed given the change in conditions.

Interviews and engagement with key stakeholders were held to understand the concerns of those who are actively dealing with traffic and mobility issues in Miami. Virtual meetings were held with organizations like Transit Alliance Miami, the PortMiami staff, representatives from The Underline, and various County and City departments, including Police and Public Works. These interviews gleaned an insight into the concerns faced by such groups and resulted in a series of recommendations accompanying each topic of concern.

The literature review was supplemented with a review of other major studies completed for the Downtown and Brickell study areas. Projects that were programmed in the 2045 LRTP were cataloged during the review. Findings from other planning and engineering studies were also provided to encourage the development of recommendations for the study area based on existing findings.

The next steps of this research include reviewing emerging technologies and the existing bicycle and pedestrian networks to evaluate areas of need in the study area. We also evaluate proposed improvements included in the 2045 LRTP and 2045 unbuilt needs that are programmed in the 2050 LRTP to be adopted in Summer 2024.