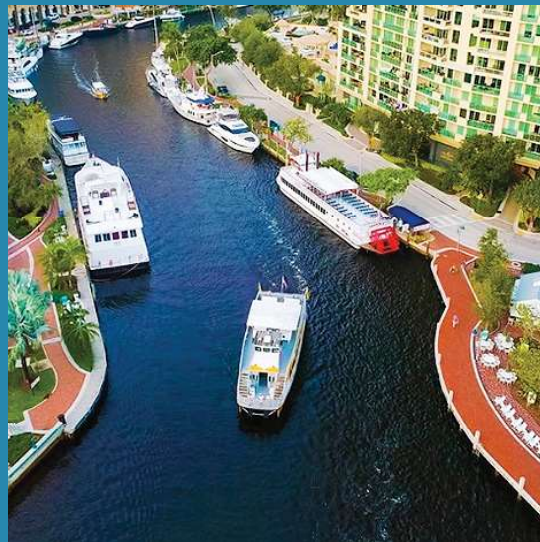




Miami-Dade Transportation
Planning Organization

FEASIBILITY OF IMPLEMENTING A WATERBORNE TRANSPORTATION NETWORK IN MIAMI-DADE COUNTY TPO GPC-VIII

EXECUTIVE SUMMARY
MAY 2025



PROJECT OVERVIEW

The purpose of this study was to assess the implementation of a waterborne transportation network throughout Miami-Dade County. Miami-Dade County is in the southernmost end of the Florida peninsula. This tropical area experiences mild weather throughout the year. Miami-Dade mainland is protected by a series of offshore barrier islands that create Biscayne Bay. Miami-Dade County enjoys a vast coastline with many inland waterways and perfect weather to take advantage of a magnificent marine environment throughout the year. The Biscayne Bay, and nearby waterways, are vital resources that are used for recreational purposes as well as for commercial transportation of cargo. In recent years, as multimodal transportation has become more critical to improving travel, alleviating congestion, and increasing capacity, transportation planners and engineers have started to research additional modes of transportation other than the conventional landside surface modes to transport people and goods. Currently, waterborne transportation services are being recognized as a potential alternative serving expanding travel demand by utilizing some of the extensive system of waterways available in Miami-Dade County.

This study assessed the feasibility of using the existing waterways within the Urban Growth Boundary of Miami-Dade County for commuter travel. The Urban Growth Boundary includes the following municipalities:

- Aventura
- Miami
- Bal Harbor
- Miami Beach
- Bay Harbor Island
- Miami Shores
- Biscayne Park
- North Bay Village
- Coral Gables
- North Miami Beach
- El Portal
- Opa Locka
- Florida City
- Pinecrest
- Golden Beach
- South Miami
- Hialeah Gardens
- Sunny Isles Beach
- Homestead
- Surfside
- Indian Creek
- Sweetwater
- Virginia Gardens
- Key Biscayne
- West Miami
- Medley

Three previous studies, shown in **Exhibit 1-1**, have been completed by the Miami-Dade County Transportation Planning Organization (TPO). The studies are the following:

- *Feasibility of Utilizing Miami-Dade County Waterways for Urban Commuter Travel (2003)*
- *Development of a Service Plan for Waterborne Transportation Services in Miami-Dade County (2004)*
- *Waterborne Transportation Feasibility Study between Black Point Marina and Downtown Miami (2017)*

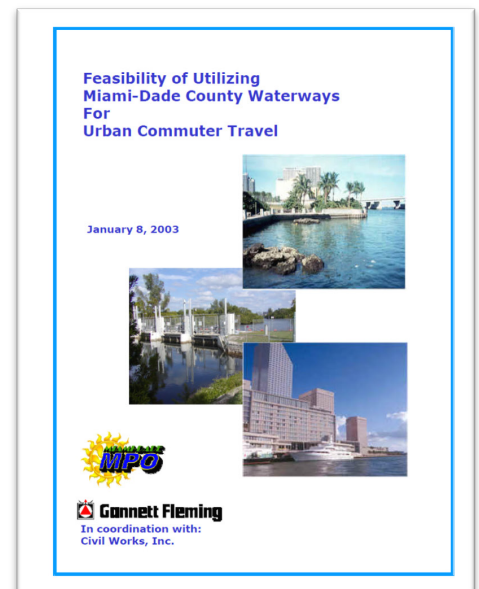
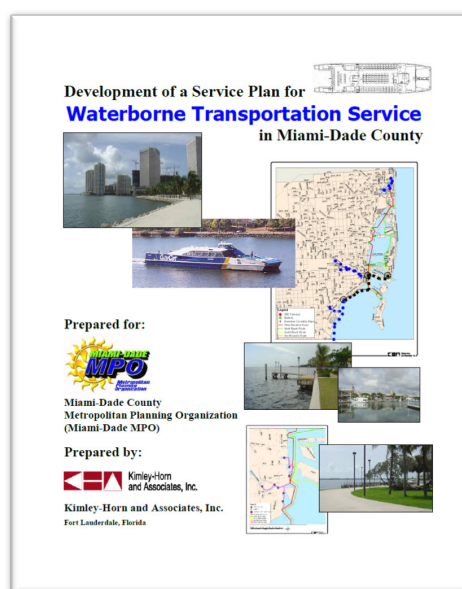
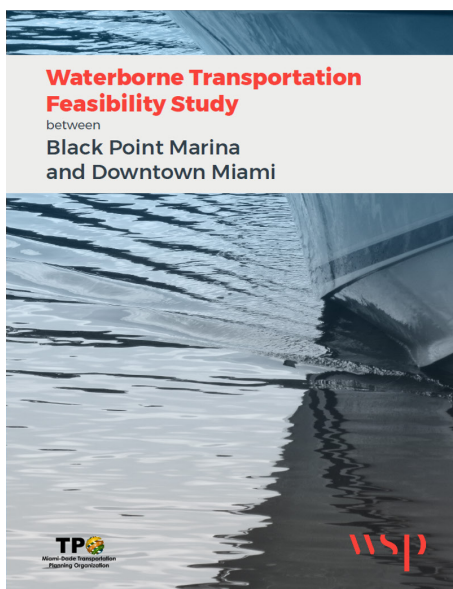


Exhibit 1-1: Previous TPO Studies

The Feasibility Study of Implementing a Waterborne Transportation Network in Miami-Dade County builds upon those studies and the identified alternatives listed below:

ALTERNATIVE NO. 1 - WEST SHORELINE ROUTE

Alternative No. 1 connects Homestead, Coconut Grove, Brickell, Downtown Miami, North Miami, North Miami Beach, Sunny Isles, and Aventura as depicted in **Exhibit 2-1**.

Project Limits: Homestead to Aventura

Stations:

- 1 Black Point Marina
- 2 Dinner Key Marina
- 3 Mercy Hospital
- 4 Brickell at SE 14th Street
- 5 Margaret Pace Park
- 6 Legion Park
- 7 Pelican Harbor Park Boat Ramp
- 8 North Bay Shore Park
- 9 FIU North Campus (Biscayne Bay Campus)
- 10 Haulover Marina
- 11 Intracoastal Mall/Sunny Isles Causeway
- 12 Aventura Arts and Cultural Center

ALTERNATIVE NO. 2 - NORTH AND SOUTH BEACH ROUTE

Alternative No. 2 connects South Beach, Downtown Miami, and North Miami Beach as depicted in **Exhibit 2-2**.

Project Limits: South Beach, Downtown Miami, and North Miami Beach

Stations:

- 1 Washington Avenue
- 2 South Pointe Park
- 3 Lincoln Road
- 4 Mount Sinai Hospital
- 5 North Beach (69th Street)
- 6 Haulover Marina

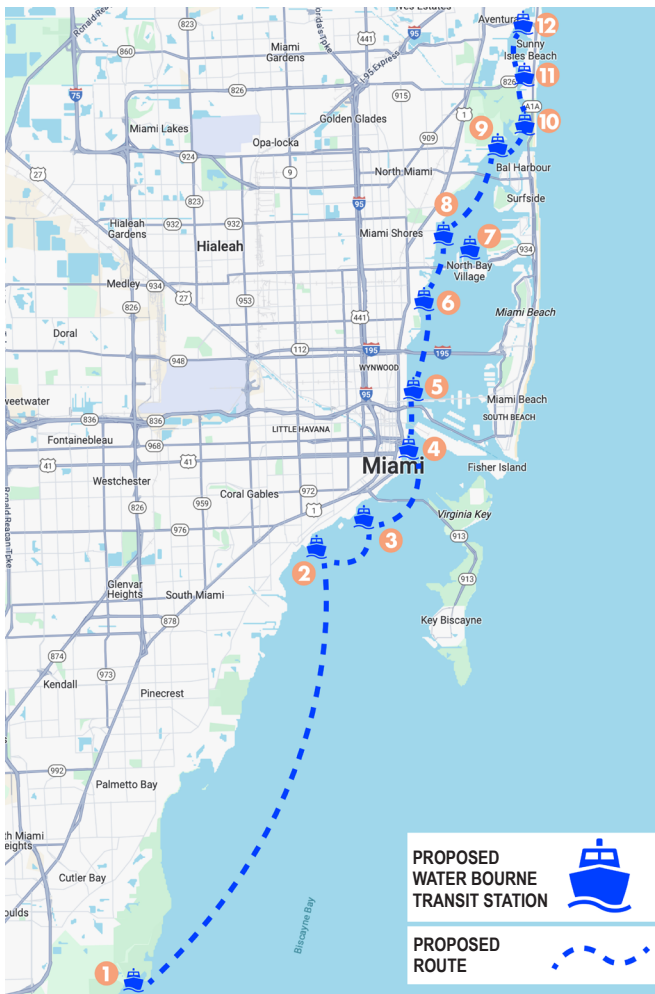


Exhibit 2-1: Alternative No. 1 Route



Exhibit 2-2: Alternative No. 2 Route

ALTERNATIVE NO. 3 - MIAMI RIVER ROUTE

Alternative No. 3 connects transit services such as the Okeechobee Metrorail Station and Miami International Airport Tri-Rail/Metrorail Station at the Miami Intermodal Center (MIC) to employment and residents located along and within one quarter mile of this segment as depicted on **Exhibit 2-3**.

Project Limits: Miami River Route

Stations:

- 1 Mouth of River
- 2 The Riverside Wharf
- 3 NW 17th Avenue at NW 14th Street
- 4 Tamiami Canal
- 5 SW 37th Avenue at NW 33rd Street
- 6 SE Lejeune Road
- 7 Red Road
NW 87th Avenue

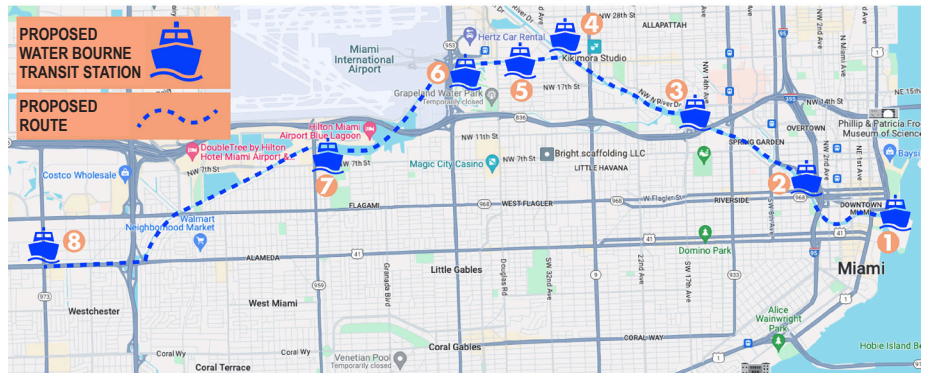


Exhibit 2-3: Alternative No. 3 Route

MANATEE PROTECTION PLAN

Meeting the required speed regulations is essential to successfully provide the Waterborne Transportation Network in Miami-Dade County. The Florida manatee is a native species that inhabits various regions across the state. Currently, they are safeguarded by the Florida Manatee Sanctuary Act, as well as federally protected under the Marine Mammal Protection Act and the Endangered Species Act. The Florida Fish and Wildlife Conservation Commission (FWC) serves as the primary state agency responsible for implementing manatee protection measures.

The Manatee Protection Plan was approved by state and federal authorities in 1995 to safeguard the local manatee population, which is vulnerable due to habitat loss and watercraft collisions. Overall, the plan seeks to balance manatee protection with recreational and economic activities in the region. The plan includes several key strategies:

Most of the potential stations considered in the study are in areas designated as “Slow Speed All Year,” except for those along the Miami River, which are classified as “Idle Speed All Year”.

Slow Speed is defined as the speed at which a vessel can maintain steerage while not creating a wake. It allows for some forward motion while still prioritizing safety for manatees and minimizing water disturbances.

Idle Speed refers to the speed at which a vessel is not making way through the water but is still capable of steering. It involves the minimum throttle required to maintain control without moving forward. Idle speed is intended to significantly reduce the risk of collisions with manatees.

PRELIMINARY ANALYSIS OF EXISTING SYSTEM

This feasibility study for implementing a waterborne transportation network in Miami-Dade County builds upon earlier research that mapped potential routes. As part of the Preliminary Analysis, assessments of dock locations were evaluated. During the evaluation process, Dock Site Audits were performed for each of the proposed station locations in May 2024.

Alternative No. 1 West Shoreline Route	May 2, 2024
Alternative No. 2 North and South Beach Route	May 3, 2024
Alternative No. 3 Miami River Route	May 9, 2024

The audits were performed on the following dates:

The Dock Site Audits offered valuable insights into each potential dock location, allowing us to identify both opportunities and challenges. As a result of the audits, a desktop review was performed, and a summary of existing conditions was prepared for each of the alternative routes. The summary provided information on the following:

- Accessibility and connectivity
- Zoning and ownership
- Existing infrastructure and facilities
- Environmental considerations
- Observed areas for improvement

PATRONAGE ESTIMATION/ RIDERSHIP ANALYSIS

Estimating patronage for a waterborne transportation network, such as water taxis or ferries, is important for several specific reasons:

Service Frequency and Scheduling: Waterborne transportation is often limited by factors like tides, weather conditions, and infrastructure constraints. Estimating patronage helps determine how frequently boats or ferries should run, ensuring that they meet demand without over-scheduling or under-serving customers.

Fleet Planning: Knowing how many passengers are likely to use the service helps in deciding how many vessels are needed to operate efficiently. Overestimating could lead to excess capacity, while underestimating could result in overcrowding and customer dissatisfaction.

Capacity Management: Many waterborne transportation networks have limited capacity, especially during peak times. Estimating patronage helps avoid overcrowded vessels, ensuring a comfortable and safe experience for passengers. It also ensures that the network can handle passenger surges, such as during holidays or special events.

Financial Viability: Accurate patronage estimates help with revenue projections, which are essential for evaluating the financial viability of the network. If estimates are too low, the service might not generate enough income to cover operational costs. Conversely, underestimating demand could result in missed opportunities to maximize revenue.

Infrastructure and Port Design: Understanding the expected number of passengers helps determine the necessary infrastructure at docks, terminals, or ports. It ensures that facilities are adequately sized, equipped, and designed to accommodate the volume of passengers safely and efficiently.

Environmental and Operational Sustainability: Waterborne transportation systems can be more environmentally sensitive than land-based ones. Estimating patronage helps optimize routes and schedules, reducing fuel consumption, emissions, and unnecessary trips. It also allows operators to plan maintenance cycles and ensure that vessels are not operating below or above optimal capacity.

Policy and Funding Decisions: Governments or authorities often provide funding or subsidies for public waterborne transportation. Estimating patronage can help identify investment, gaps in service, and prioritize expansion or improvement projects based on expected demand.

The STOPS (Simplified Trips-on-Project Software) v2.52 model was used for a high-level relative comparison of projected ridership demand for the various waterborne alternatives considered in the study. While the STOPS model is generally used for modeling land-based transit systems, it was repurposed for this study. This version of STOPS was applied at a planning-level context to explore potential demand scenarios. The model leveraged regional transit travel patterns and key station area characteristics to estimate daily boardings and peak-period demand. The outputs were used to support planning-level evaluations of route performance, service design, and preliminary vessel sizing. These estimates are intended for comparative planning purposes only, and reflect conditions consistent with similar corridors and travel markets in the region. The resulting outputs provide a high-level comparative assessment of potential ridership under generalized assumptions. The ridership projections are based on the following planning-level assumptions:

1. Service Characteristics:

- **Routes:** Conceptual routes connecting key activity centers along the waterborne routes
- **Headways:** Assumed 15 to 30-minute peak period service frequencies
- **Span of Service:** Assumed to operate approximately 14 hours per day, consistent with regional transit operations
- **Fare Structure:** Assumed \$5 fare levels comparable to existing premium transit services in the region (e.g., express bus or rail)

2. Land Use and Demographics:

- Population and employment densities were derived from existing regional planning datasets
- Station area characteristics reflect generalized walk access

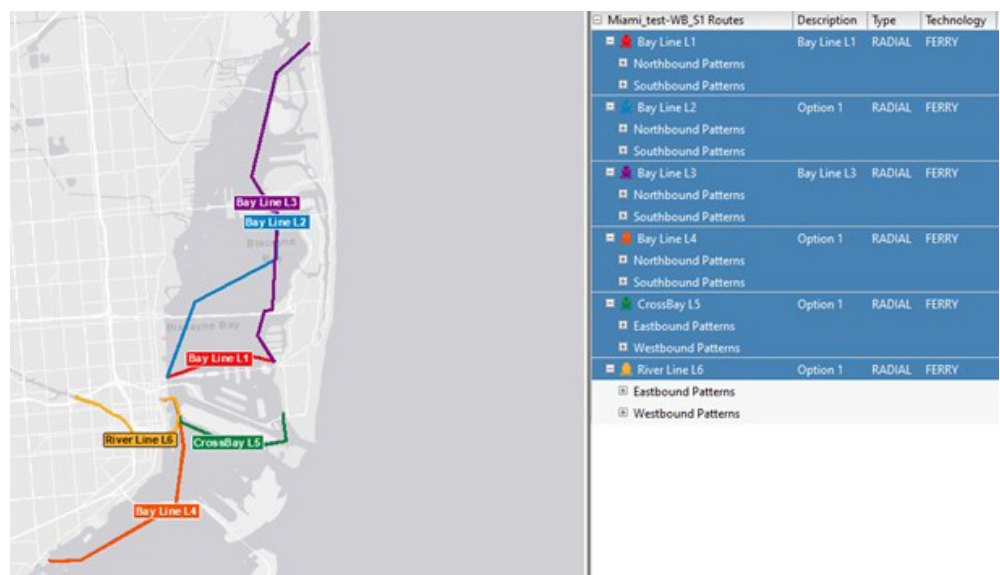


Exhibit 3-1: Proposed Waterborne Transportation Network

3. Network Integration:

- First and last-mile access was assumed to be primarily walk-up or through informal transfers; no formal park-and-ride integration was modeled

4. Model Limitations:

- The model assumes average regional travel behavior patterns and does not incorporate mode-specific nuances such as weather dependency, vessel type, or docking constraints
- Seasonal or event-based travel patterns (e.g., tourism surges, weekend traffic) were not explicitly modeled

Exhibit 3-1 outlines the preliminary analysis that was conducted under three distinct scenarios to evaluate the ridership potential for each proposed route line and stop. To estimate potential ridership and assess patronage for this network, six (6) conceptual lines were established. The six lines were: Bay Line L1, Bay Line L2, Bay Line L3, Bay Line L4, Cross Bay L5, and River Line L6.

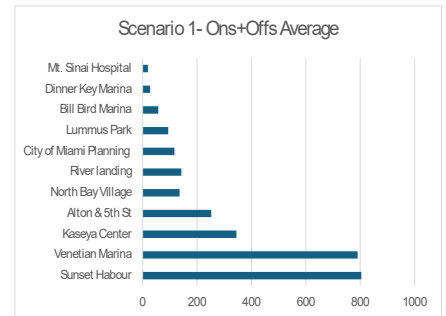
The simulation assumptions were intentionally conservative to avoid overestimating ridership. An average speed of 14 mph (12 knots) was used in the Biscayne Bay and 10 mph (8.7 knots) in the Miami River, recognizing that actual speeds could be slightly higher depending on vessel characteristics while adhering to manatee protection requirements. Additional assumptions included:

- 8 - minute docking time
- Assuming only one vessel is operating daily per line

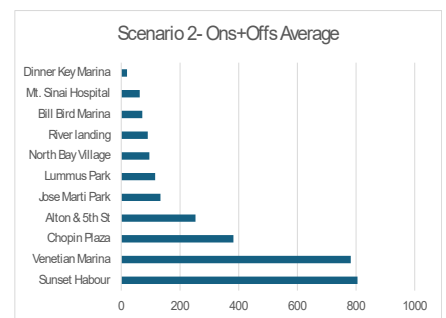
Three scenarios were established for the six route lines by combining and mixing potential dock locations that serve a wide range of municipalities. The different scenarios were developed to evaluate different dock locations and service levels, while identifying how the various routes can complement each other to improve efficiency and increase ridership.

Exhibit 4-1 depicts the three different scenarios and the average daily ridership per station.

Options	Stop	From	Stop	To
SCENARIO 1				
Bay Line L1	1	Venetian Marina	2	Sunset Harbour
Bay Line L2 Option 1	1	Venetian Marina	2	North Bay Village
	2	North Bay Village	3	Bill Bird Marina
Bay Line L3	1	Sunset Harbour	2	Mt. Sinai Hospital
	2	Mt. Sinai Hospital	3	North Bay Village
	3	North Bay Village	4	Bill Bird Marina
Bay Line L4 Option 1	1.a	Kaseya Center	2	Dinner Key Marina
CrossBay L5 Option 1	1.a	Kaseya Center	2	Alton & 5th St
River Line L6 Option 1	1.a	Kaseya Center	2	City of Miami Planning Department
	2	City of Miami Planning Department	3	Lummus Park
	3	Lummus Park	4	River landing



Options	Stop	From	Stop	To
SCENARIO 2				
Bay Line L1	1	Venetian Marina	2	Sunset Harbour
Bay Line L2 Option 2	1	Venetian Marina	2	Mt. Sinai Hospital
	2	Mt. Sinai Hospital	3	Bill Bird Marina
Bay Line L3	1	Sunset Harbour	2	Mt. Sinai Hospital
	2	Mt. Sinai Hospital	3	North Bay Village
	3	North Bay Village	4	Bill Bird Marina
Bay Line L4 Option 2	1.b	Chopin Plaza	2	Dinner Key Marina
CrossBay L5 Option 2	1.b	Chopin Plaza	2	Alton & 5th St
River Line L6 Option 2	1.b	Chopin Plaza	2.a	Jose Marti Park
	2.a	Jose Marti Park	3	Lummus Park
	3	Lummus Park	4	River landing



Options	Stop	From	Stop	To
SCENARIO 3				
Bay Line L1	1	Venetian Marina	2	Sunset Harbour
Bay Line L2 Option 3	1	Venetian Marina	2	Bill Bird Marina
	1	Sunset Harbour	2	Mt. Sinai Hospital
Bay Line L3	2	Mt. Sinai Hospital	3	North Bay Village
	3	North Bay Village	4	Bill Bird Marina
	1.c	Venetian Antenna Platform	2	Dinner Key Marina
CrossBay L5 Option 3	1.c	Venetian Antenna Platform	2	Alton & 5th St
River Line L6 Option 3	1.c	Venetian Antenna Platform	2.a	City of Miami Planning Department
	2.a	City of Miami Planning Department	3	Lummus Park
	3	Lummus Park	4	River landing

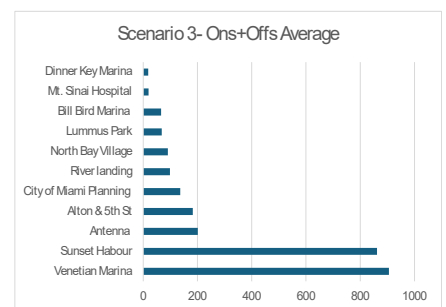


Exhibit 4-1: Scenario 1, 2 and 3 and Daily Ridership per Station

Table 1 presents the ridership results per line for each scenario. Based on the ridership results and analysis, Scenario 2 is recommended and includes the following routes:

- Bay Line L1 from Venetian Marina to Sunset Harbor
- Bay Line L2 from Venetian Marina to North Bay Village
- Cross Bay L5 from Chopin Plaza to Alton Road and 5th Street
- River Line L6 from Chopin Plaza to José Martí Park, Lummus Park and finishing in River Landing

Ridership Results per Line			
Route name	1	2	3
Bay Line L1	1427	1430	1535
CrossBay L5	505	505	366
River Line L6	419	449	406
Bay Line L3	214	248	235
Bay Line L2	166	139	72
Bay Line L4	55	39	37
Total	2786	2811	2651

Table 1- Ridership Result per Line

PUBLIC INVOLVEMENT

The public was informed about the study and interested parties were provided with an opportunity to be involved in the development of network recommendations. The feasibility study included coordination with multiple stakeholders and partnering agencies. The key stakeholders and partnering agencies participated in three (3) Project Working Group (PWG) Meetings and three (3) Private Stakeholder Meetings. These meetings were held on the following days:

Project Working Group Meeting 1	Project Working Group Meeting 2	Project Working Group Meeting 3
Private Stakeholder Meeting 1	Private Stakeholder Meeting 2	Private Stakeholder Meeting 3
March 12, 2024	August 7, 2024	October 25, 2024

RECOMMENDATIONS

After coordination with partnering agencies and municipalities, adjustments were made to the routes to address the concerns of all parties involved. The proposed network integrates waterfront areas with infrastructure county-wide to enhance connectivity with key destinations and transit hubs. The alternative evaluation process included an assessment of how waterborne transit can reduce road congestion, offer faster alternatives for commuters, and improve access to key destinations along waterfront locations in the county. Some alternative routes that offer practical and effective solutions for connecting high-demand areas across the county were identified. Through a detailed assessment of existing dock locations, ridership results, traffic patterns, transit access points, and population density, areas where the introduction of waterborne routes could provide significant benefits were identified.

The Miami-Dade County Water Transportation Network is set to revolutionize the region’s transit landscape by offering a waterborne alternative to traditional road and rail transportation. The network will feature six (6) preliminary lines: L1, L2, L3, L4, L5, and L6. These routes have been carefully designed to connect key waterfront locations, improve mobility, reduce congestion, and promote sustainable transportation throughout the county.

The preliminary lines are proposed to be rolled out in two phases: Tier 1 and Tier 2. Tier 1 will consist of routes where ridership numbers are projected to be sufficient to justify the immediate rollout. These routes will be launched first, providing essential connections between key destinations and addressing the current mobility needs of residents, commuters, and tourists.

Tier 1

Tier 1 proposes the following six (6) preliminary lines:

1. **L1- THE VENETIAN** - Venetian Marina to Sunset Harbor
2. **L2 – THE COASTAL LINK** - Venetian Marina to Haulover Marina
3. **L3 – NORTH BAY WEST** - Venetian Marina to North Bay Village, North Bay Shore Park and ends at FIU North Campus
4. **L4 – NORTH BAY EAST** - Fort Dallas Park to Lincoln Road, Mount Sinai Hospital, North Bay Village, and ends at Haulover Marina
5. **L5 – DOWNTOWN BEACH LINK** - Fort Dallas to Lincoln Road
6. **L6 – MIAMI RIVER ROUTE** - Chopin Plaza, Fort Dallas Park, José Martí Park, and ends in River Landing

Tier 1 expands the waterborne network by improving access to more local destinations along the river and across the bay. **Exhibit 5-1** showcases the Recommended Proposed System of the Miami-Dade Waterborne Network Tier 1.

Preliminary Miami-Dade Waterborne Network Tier 1

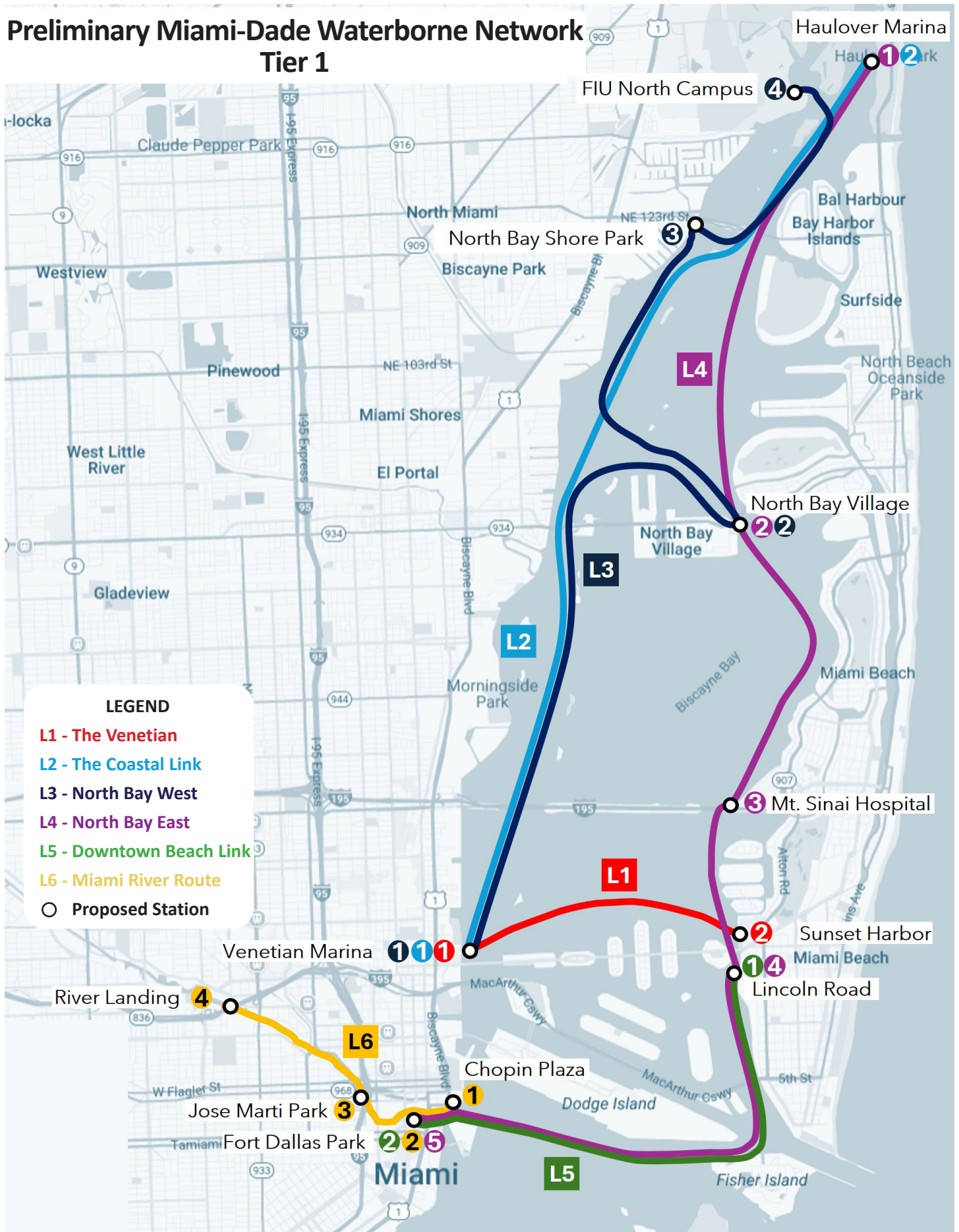


Exhibit 5-1: Preliminary Miami-Dade Waterborne Network Tier 1

Tier 2

Tier 2 will focus on future routes, designed to cater to anticipated population growth and new development, with the goal of expanding the network to meet future demands. Tier 2 proposes expanding L6 – Miami River Line and proposing a new L7 – Virginia Key Link route. Exhibit 6 showcases the Recommended Proposed System of the Miami-Dade Waterborne Network Tier 2, featuring the additional stops for the L6 and the new L7 route that expands the water transit system in Miami-Dade. Tier 2 routes are as follows:

- L6 – MIAMI RIVER ROUTE (TIER 2):** Extends from Miami River Landing through the Miami River area, passing several proposed stations, including:
 - River Park South Side
 - Garcia’s Seafood
 - Miami Riverside Center
 - 2nd Avenue Bridge
 - Metrorail North Shore
 - Metrorail South Shore
 - Multiple Metro mover and Metrorail connection points
 - Riverwalk Metromover Station
 - James L. Knight Convention Center
 - Miami Circle Park
- L7 – VIRGINIA KEY LINK:** Connects Chopin Plaza to Virginia Key, offering a direct water route between Downtown Miami and the barrier island.

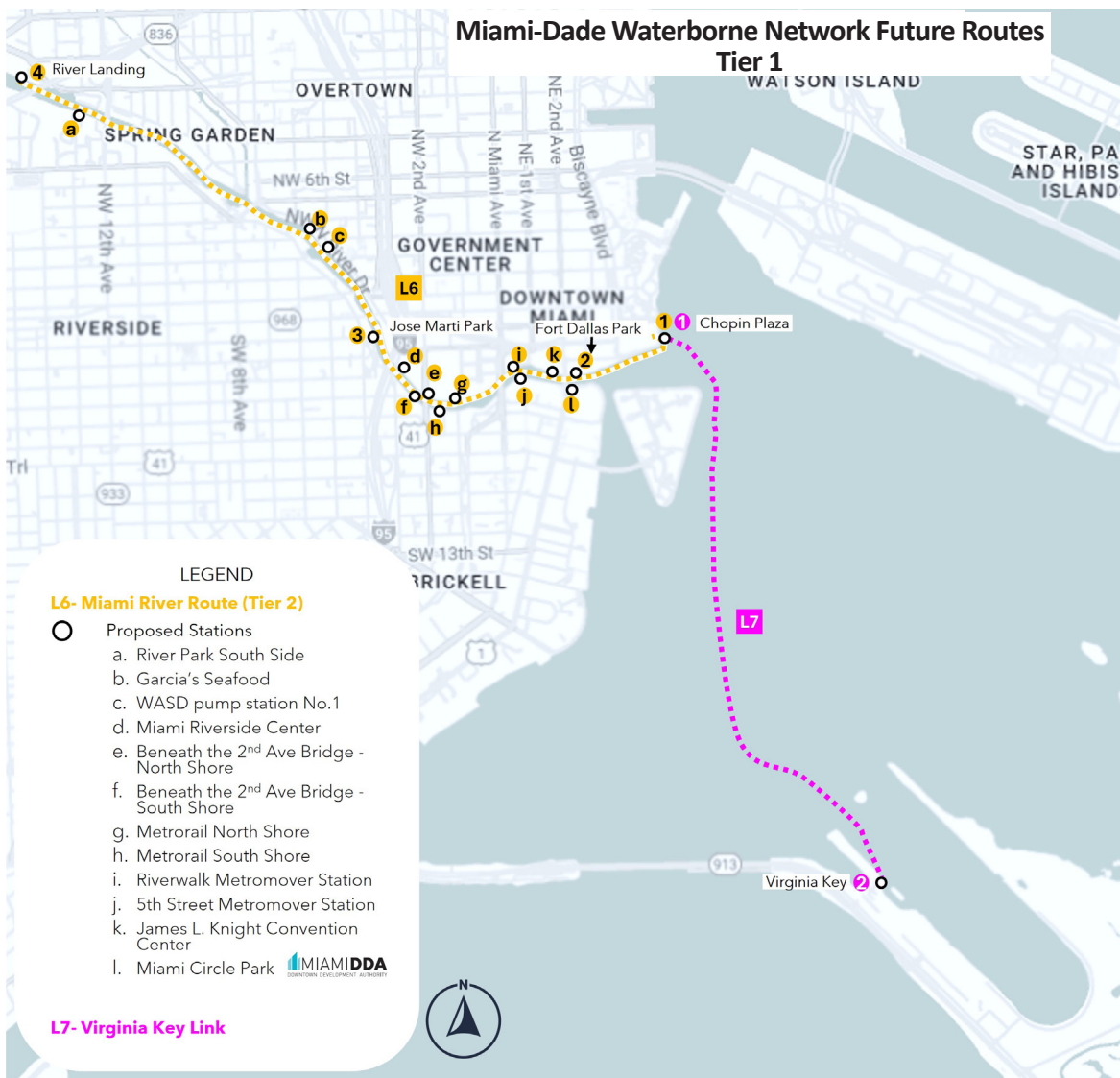


Exhibit 6-1: Preliminary Waterborne Network- Tier 2

IMPLEMENTATION PLAN

Given several municipalities share a keen interest in developing a waterborne transportation system, it is recommended that the proposed routes be implemented through a partnership of interested parties. **Table 2** reflects the proposed routes and the recommended implementation authority.

Table 2- Proposed Routes and Recommended Implementing Authority

ROUTE	ROUTE NAME	RECOMMENDED OPERATING AGENCY	FROM	TO	# OF STOPS	ROUTE LENGTH	EST. TRAVEL TIME*
L1	The Venetian	City of Miami Beach	Venetian Marina	Sunset Harbour	2	2.6	11
L2	The Coastal Link	Miami-Dade County	Venetian Marina	Haulover Marina	2	9.8	42
L3	North Bay West	Miami-Dade County	Venetian Marina	FIU North Campus	5	12.1	68
L4	North Bay East	Miami-Dade County	Fort Dallas Park	Haulover Marina	5	15.0	64
L5	Downtown Beach Link	City of Miami Beach	Fort Dallas Park	Lincoln Road	2	5.1	22
L6	Miami River Route	City of Miami	Chopin Plaza	River Landing	4	2.8	30

PHASE 1

In the initial phase, it is recommended that the City of Miami Beach implement Route L1 (the Venetian) and the City of Miami implement Route L6 (Miami River Route). The City of Miami Beach has prior experience operating Route L1 and can leverage its existing docking facilities, while the City of Miami is well-positioned to manage Route L6 due to its collaboration with the Miami Downtown Development Authority (DDA) in establishing a regulatory framework for stops along the Miami River. Both agencies should conduct a refined analysis of ridership scenarios to optimize operations before initiating a turnkey procurement process. The operator would be responsible for providing vessels, ensuring compliance with regulations, managing docking facilities, installing GPS and fare collection systems, and promoting the service. The operating agencies would oversee fare collection, advertising, signage, and facilitating permits. To test market demand, an initial five-year contract with an experienced operator is recommended, after which agencies can evaluate transitioning to an in-house operation.

PHASE 2

The second phase focuses on implementing Route L3 (North Bay - West), which would be managed by the Miami-Dade Department of Transportation and Public Works (MDDTPW). This route runs along the mainland coast near Aventura and is expected to attract high ridership due to heavy congestion in the area, particularly during peak commuting hours. The strong north-south travel demand makes this route an essential component of the waterborne transportation system. As it traverses multiple municipalities, the County is best suited to operate and coordinate this route efficiently.

PHASE 3

In the third phase, Route L4 (North Bay - East) is recommended for implementation by MDDTPW. This route serves the western shoreline of the barrier islands, starting at Haulover Marina, and is expected to attract significant ridership due to congestion similar to that of Route L3. Given its north-south directional demand and time-saving potential, this route would complement Route L3, allowing for greater connectivity across jurisdictions. MDDTPW is the most appropriate operator due to its ability to coordinate across municipal boundaries and integrate services effectively.

PHASE 4

The final phase involves implementing Route L2 (Coastal Link) as an express service by MDDTPW, contingent on sufficient demand growth from Routes L3 and L4. Since this route has only two stops, it would serve as a high-speed alternative, optimizing efficiency for commuters. MDDTPW is best suited to manage this route, given its role in operating L3 and L4 and its ability to allocate resources accordingly. Additionally, Route L5, which connects Miami Beach to Downtown Miami via the Miami River, would be introduced under the City of Miami Beach's management. This route would complement Route L1 and potentially feed additional ridership into Route L6, further enhancing the waterborne transportation network's connectivity and efficiency.

IMPLEMENTATION PLAN ESTIMATED COSTS

Given the proposed recommendations it is proposed that 50 passenger (min) vessels be used for The Venetian Route and that a 25-passenger vessel be used to initiate the other routes to start building sufficient demand. **Table 3** shows a summary of the Total Cost to implement each route and recommended operating agency.

Table 3- Preliminary Planning Level Estimated Costs

ROUTE	ROUTE NAME	RECOMMENDED OPERATING AGENCY	FROM	TO	TOTAL COST (LOW)	TOTAL COST (HIGH)
L1	The Venetian	City of Miami Beach	Venetian Marina	Sunset Harbour	\$ 7,600,000	\$ 8,600,000
L2	The Coastal Link	Miami-Dade County	Venetian Marina	Haulover Marina	\$ 4,400,000	\$ 5,400,000
L3	North Bay West	Miami-Dade County	Venetian Marina	FIU North Campus	\$ 7,100,000	\$ 9,100,000
L4	North Bay East	Miami-Dade County	Fort Dallas Park	Haulover Marina	\$ 8,450,000	\$ 10,450,000
L5	Downtown Beach Link	City of Miami Beach	Fort Dallas Park	Lincoln Road	\$ 5,750,000	\$ 7,750,000
L6	Miami River Route	City of Miami	Chopin Plaza	River Landing	\$ 4,400,000	\$ 5,400,000
Total					\$ 37,700,000	\$ 46,700,000

NEXT STEPS

The following is the general recommended framework for the implementation of the Waterborne Transportation Network in Miami-Dade County:

- Begin Tier 1 Implementation Process:** Miami-Dade County and municipalities to pursue a phased arrangement towards implementation of a waterborne transportation network that is an extension of Miami-Dade's public transit system, currently operated by MDDTPW. The MDDTPW, City of Miami Beach, and City of Miami to implement Tier 1 Recommendations first.
- Stakeholder Coordination and Project Sponsors:** MDDTPW and municipalities to coordinate with partner agencies to identify project sponsors who can champion the study's Tier 1 recommendation routes as per the cost table. The implementation of the proposed routes should be carried out in partnership between Miami-Dade County and the appropriate municipalities that are best suited to implement a specific route.
- Secure Funding:** Apply for reliable and consistent funding grants and opportunities to have recurring funds for budget planning purposes to address operations and maintenance of the routes. Necessary capital investments have already been identified by route. Securing funding (including County and Municipal subsidies) is the next step that will impact implementation schedules and the proposed phasing plan.
- Turnkey Procurement Process:** Each agency issues a turnkey procurement process for their respective route(s). This procurement would dictate initial operating hours, a minimum capacity for vessels and a minimum number of vessels. Compensation terms would be based on an hourly cost per hour of operation per vessel. An experienced turnkey operator can be contracted for an initial term with extensions totaling five years to test and increase market demand and provide sufficient time to establish consistent ridership. After a five-year initial period, each operating agency can assess options to continue with turnkey operators or to convert the system to a County-run operation. Revenues collected by the operator would offset the amount of funding required to operate each route.
- Phased Route Prioritization:** Once sponsors are identified and grants are in place, the recommended improvements should be prioritized by phase, as depicted in **Table 4**.
- Tier 2 Implementation Process:** As a long-term recommendation, Miami-Dade County is to expand the network by providing additional stops to the Miami River Route (L6) as per the Miami DDA proposed stations. Tier 2 will also implement the new Virginia Key Link (L7) route with a direct connection to Virginia Key. It is recommended that MDDTPW operate this route in coordination with the City of Miami.

Table 4: Phased Route Prioritization

PHASE	ROUTE	ROUTE NAME	RECOMMENDED OPERATING AGENCY
1	L1	The Venetian	City of Miami Beach
	L6	Miami River Route	City of Miami Beach in coordination with Miami DDA
2	L4	North Bay East	It is recommended that MDDTPW operate this route since these north-south routes traverse various municipalities. The County can most readily coordinate with these multiple jurisdictions.
3	L3	North Bay West	Similar to L4 it is recommended MDDTPW operate this route since these north-south routes traverse various municipalities. The County can most readily coordinate with these multiple jurisdictions.
4	L2	The Coastal Link	It is recommended be implemented by MDDTPW as an “Express Route” since it only has two stops, once demand for L3 and L4 has grown significantly.
	L5	Downtown Beach Link	City of Miami Beach so it can be coordinated with the parallel Route (L1) that the City of Miami Beach would have been operating since the initiation of Phase 1.