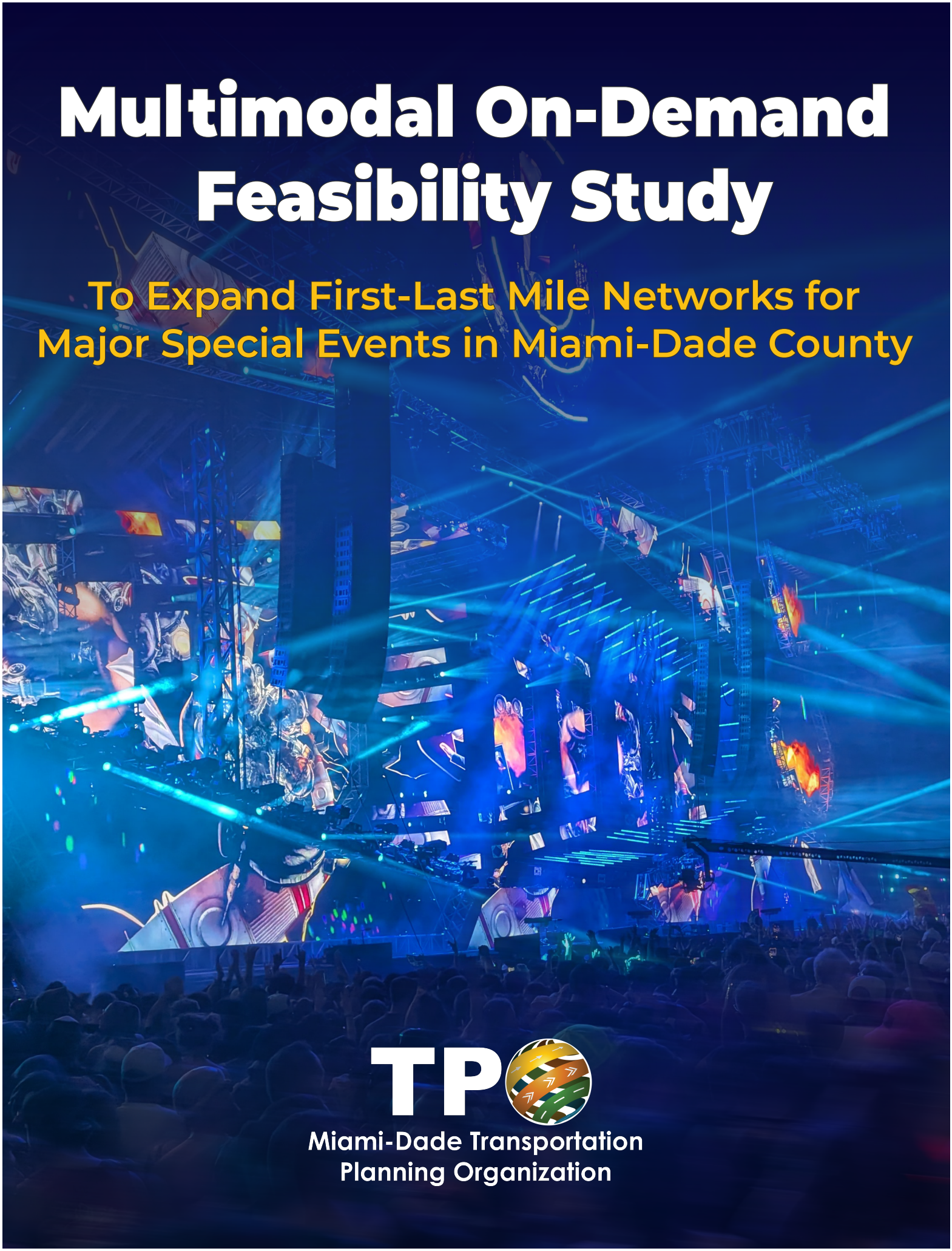
Multimodal On-Demand Feasibility Study

To Expand First-Last Mile Networks for Major Special Events in Miami-Dade County



TPO

Miami-Dade Transportation Planning Organization

TITLE VI

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CHAPTER 1: LITERATURE REVIEW AND DATA GATHERING

INTRODUCTION:

This chapter offers an in-depth review of past and ongoing studies, along with best practices related to First-Last Mile services and major special events in Miami-Dade County such as conferences, festivals, sporting events, and music performances, which vary in venue location and frequency.

PRIOR STUDIES

- LOCAL
- STATE
- MAJOR EVENTS
- TRAFFIC PATTERN & TRANSIT RIDERSHIP

LOCAL

1. **First-Last Mile(FLM) Connectivity Services to Feed into the South Dade TransitWay**
2. **TPO SMART Demonstration Projects**
3. **Miami-Dade TPO Municipal Grant Program Studies From Past Five Years**
4. **City of Miami Beach Convention Center Pedestrian, Bicycle & Transit Safety and Connectivity Project**
5. **City of Miami Beach First-Last Mile Connection to the SMART Plan Study**
6. **City of Miami Update of Bicycle Master Plan**
7. **Key Biscayne - Crandon Boulevard Safety and Mobility Study**
8. **Five-Year Implementation Plan of the People's Transportation Plan ,** Thirteenth Annual Update Covering Fiscal Years 2025–2029
9. **2050 Bicycle-Pedestrian Master Plan completed by TPO**
10. **2025 Downtown Miami Master Plan**
11. **Miami-Dade Transit Development Plan**
12. **The Underline Masterplan**
13. **Miami Downtown Development Authority (DDA) Special Events Traffic Management Plan**
14. **Rickenbacker Master Plan Project**

STATE

1. **FDOT District 6 Bicycle Network Connectivity Assessment**
2. **Special Event Transportation Service Planning and Operations Strategies for Transit**

LOCAL

In recent years, Miami-Dade County has prioritized the exploration of First-Last Mile (FLM) connections as part of its broader efforts to build a multimodal transportation network. A series of local studies, conducted by Miami-Dade County, the Miami-Dade Transportation Planning Organization (TPO), Miami-Dade Transit (MDT), and partner agencies have been instrumental in identifying gaps in connectivity between major transit services and the first or final legs of passenger trips.

These studies have collectively focused on identifying barriers to effective FLM service delivery, such as limited pedestrian and bicycle infrastructure, land use disconnects, safety concerns, and insufficient first-mile options in low-density neighborhoods. Additionally, they have evaluated potential solutions, including:

1. Implementation of micro-mobility programs (e.g., bike-share and e-scooters)
2. Deployment of on-demand and flexible transit services
3. Enhanced sidewalk and trail connectivity
4. Park-and-ride strategies near transit hubs
5. Coordination with Transportation Network Companies (TNCs)

Many of these studies also align with the Miami-Dade SMART Plan and support transit-supportive land use planning to reinforce the integration of first-last mile considerations in strategic regional mobility investments.

The findings from these studies have informed pilot programs, capital investment planning strategies, and policy recommendations to improve multimodal access to high-capacity transit corridors such as Metrorail, Metromover, and the South Dade TransitWay.

Collectively, the efforts summarized in this section document the current conditions and opportunities for FLM services and provide a foundation for future implementation. They provide key data, community feedback, and planning frameworks that help local agencies identify priority corridors, design effective interventions, and pursue funding opportunities.

First-Last Mile(FLM) Connectivity Services to Feed into the South Dade TransitWay

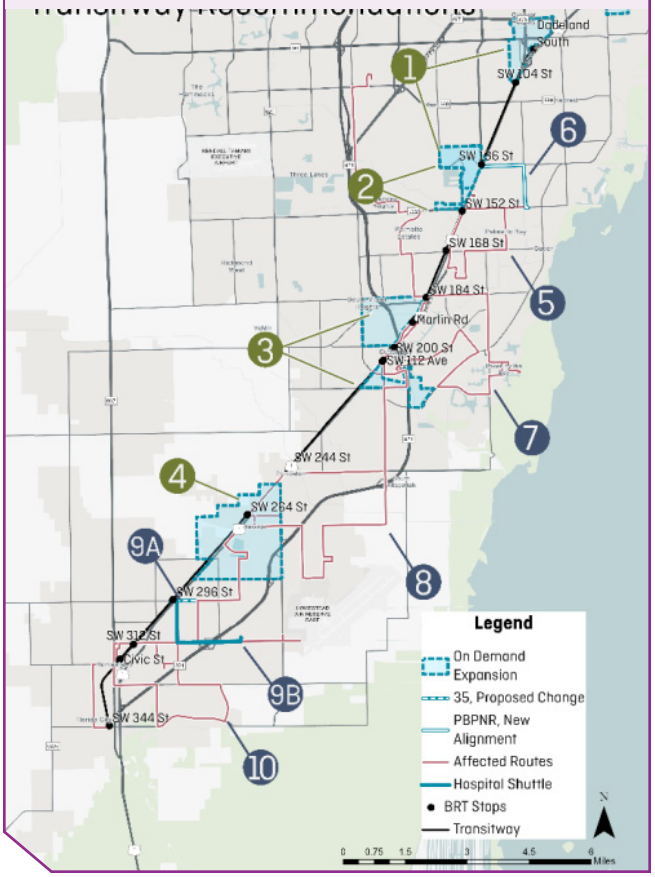
This report is a comprehensive feasibility study that identifies FLM transit services solutions to provide connectivity to current and planned transit stations on the South Dade TransitWay. The study produced eleven service recommendations, which include a combination of on-demand and fixed route services running parallel to the TransitWay, (see Figure on Page 1.6) and six policy recommendations (see Figure below).

The policy recommendations call for schedule alignments, partnerships with rideshare providers, safety, bicycle and pedestrian infrastructure investments, an emphasis on increasing TOD on and near the corridor, and a promotion of marketing and awareness campaigns to inform riders about the services.

KEY TAKEAWAYS:

The study's eleven service recommendations offer implementable models such as on-demand and parallel fixed-route services that can be adapted to improve connectivity to BERT stations in our planning area. Additionally, the study's policy recommendations provide actionable strategies, including partnerships with rideshare operators and an emphasis on Transit-Oriented Developments to inform the development of first-last mile solutions. Moreover, increasing awareness of the services through marketing campaigns can help spur modal shifts from automobiles to transit.

TRANSITWAY RECOMMENDATIONS

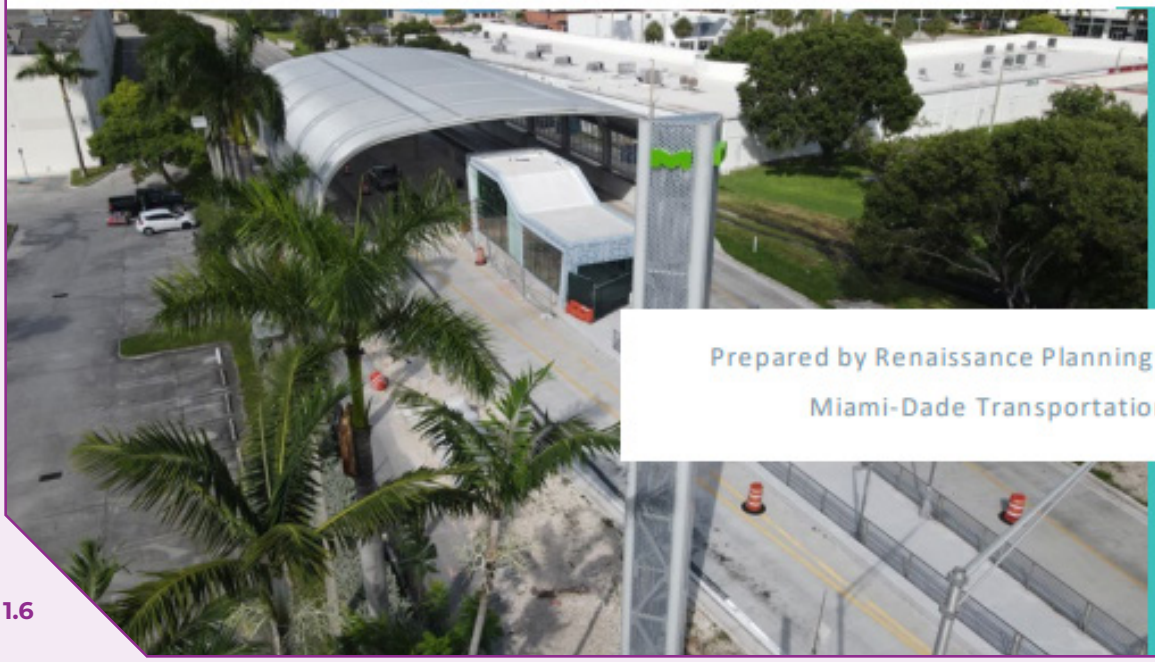




FIRST LAST-MILE (FLM) CONNECTIVITY SERVICES TO FEED INTO THE SOUTH DADE TRANSITWAY

Final Report





Prepared by Renaissance Planning Group on behalf of the
Miami-Dade Transportation Planning Organization

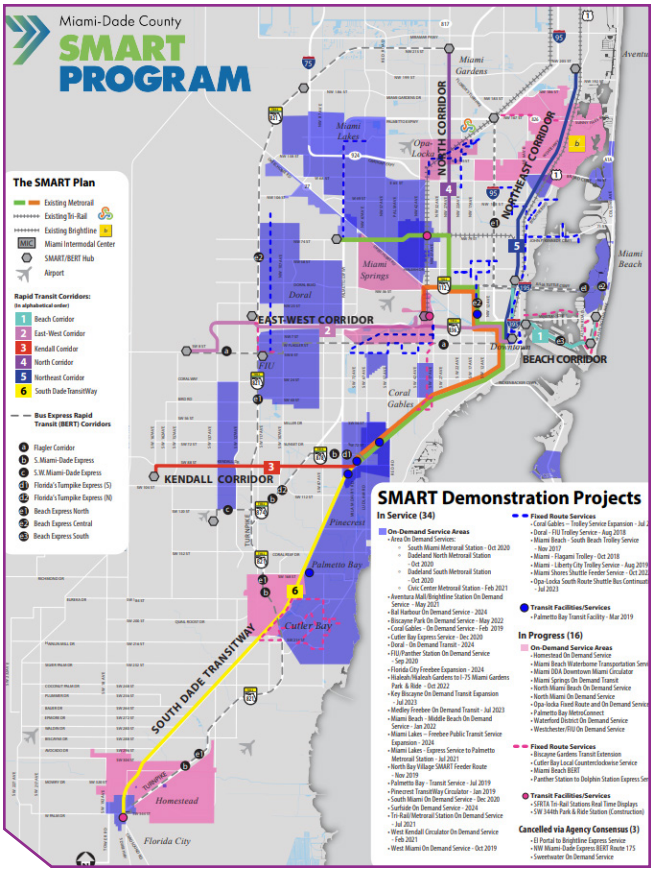
TPO SMART Demonstration Projects

The SMART Demonstration Program seeks to advance elements of the Miami-Dade SMART Plan through demonstration projects conceptualized by project-sponsors such as local municipal governments and DTPW. Project types include new transit service, new stations, and transit facilities. Projects considered for this program are pilots with a duration of up to three years, and a commitment to continue the project if deemed successful by the project sponsor. These demonstration projects focus on improving first-last mile connectivity to existing and future SMART Program Transit Stations, On-Demand Services and Enhanced Integration of Transit Services at county and municipal levels. This program is funded through a mixture of federal, state, and local funding.

Various projects have been implemented through the SMART Demonstration Projects effort, including on-demand service areas, fixed-route services, and station amenities such as transit stop real-time signage.

KEY TAKEAWAYS:

The SMART Demonstration Projects highlight precedents to integrate flexible mobility solutions into broader transit planning. The program's focus on piloting FLM services such as on-demand zones and enhanced transit station amenities provides tested models to evaluate for adaptions with major events. Additionally, the program's funding structure includes sponsorships to provide for potential implementation and scalability strategies which could be applied to major special events.



Miami-Dade TPO Municipal Grant Program Studies From Past Five Years

The Miami-Dade TPO supports local municipalities through its Municipal Grant Program (MGP), funding a range of planning studies to advance mobility, safety, and connectivity. These studies are developed in partnership with municipal stakeholders and focused on identifying local transportation challenges, assessing the feasibility of infrastructure and service improvements, and supporting implementation of multimodal solutions aligned with the Miami-Dade SMART Plan.

A subset of these studies has relevance to FLM connectivity for special events such as on-demand micro transit, pedestrian and bicycle access enhancements, transit-supportive land use, and temporary event-based transportation management plans. **The highlights of the most applicable studies are summarized below.**

City of Miami Beach Convention Center Pedestrian, Bicycle & Transit Safety and Connectivity Project

This study evaluates the feasibility of implementing multimodal improvements on 17 Street, in Miami Beach, to connect residents to the TPO Strategic Miami Area Rapid Transit (SMART) Plan. 17 Street is a collector roadway that provides access from the Venetian Causeway Bicycle Lanes to the Miami Beach Beachwalk.

The following alternatives were analyzed as part of the project:

Alternative 1 focuses on pedestrian enhancements, including ADA-compliant sidewalks, curb ramps, audible signals, signage, new crosswalks on 17 Street, and a Bus Only lane at the Washington Avenue transfer facility.

Alternative 2 builds on Alternative 1 with added four-foot green bicycle lanes on both sides of 17 Street, bus islands, and modified parking to accommodate buffered five-foot bike lanes east of Collins Avenue. It also adjusts travel lane widths and expands commercial loading zones.

Alternative 3 adds a shared bus/bicycle Lane between Meridian Avenue and Collins Avenue.

Build Alternatives have minimal LOS impact. Furthermore, signal timing changes can further improve traffic operations. The benefits of bicycle and transit are prevalent throughout the day and prevail over the peak hour impacts to traffic.

Overall, the study recommends the advancement of Alternative 3 for implementation. Access to the Miami Beach Convention Center will be enhanced if the project advances to construction by providing transit operators, bicyclists, and micromobility device users safer and more efficient connections.

KEY TAKEAWAYS:

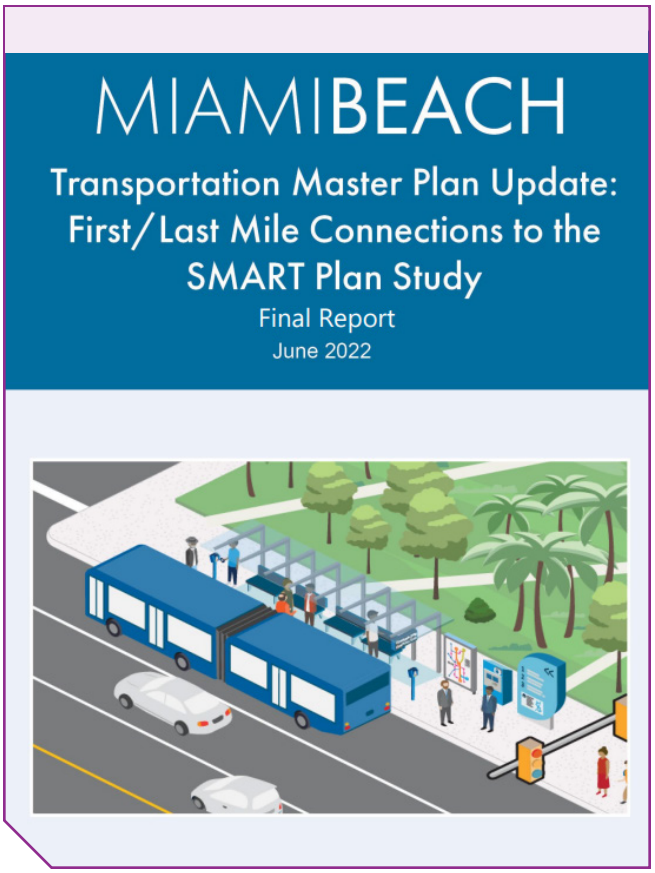
The study evaluates multimodal enhancements along 17 Street which is a key collector roadway linking the Venetian Causeway bicycle lanes to the Beachwalk. The study demonstrates how infrastructure improvements such as ADA-compliant sidewalks, dedicated bus and bike lanes and improved pedestrian crossings can support a mode shift. Notably, the study found that the proposed alternatives, particularly Alternative 3, can improve bicycle and transit quality of service with only minimal traffic impacts, even during peak hours.

The findings demonstrate the feasibility of implementing FLM solutions without compromising traffic operations. The project's alignment with existing transit routes (113, 115, 119) and its emphasis on micromobility options provide relevance for enhancing special event transportation.

City of Miami Beach First-Last Mile Connection to the SMART Plan Study

The strategies listed in this study are intended to integrate directly into the Miami Beach Transportation Master Plan (TMP) Update which will include a comprehensive assessment of transportation needs throughout Miami Beach. Project concepts included in this document are intended to guide specific investments leading up to Beach Corridor to drive success for Beach Corridor and BERT services in Miami Beach in coordination with regional efforts.

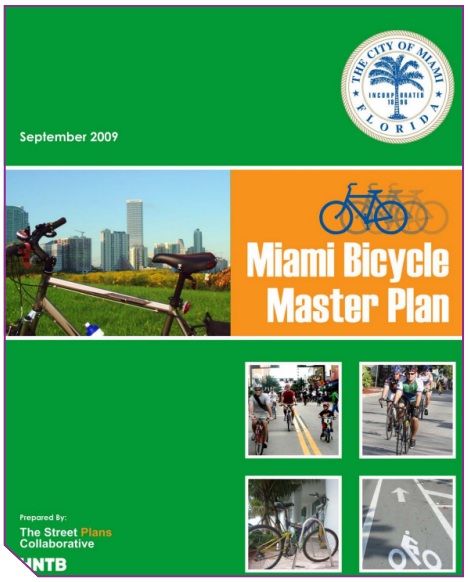
Outputs from this study include projects to improve pedestrian, bike and transit access to Miami Beach SMART stations. Specific projects were identified to build on the TMP Update to support various FLM On-Demand Services. A list of priority projects is identified in the study, including enhancements near the Convention Center, including a 17th Street bike lane (as identified in the previous study), Convention Center Drive sharrows, intersection improvements, and mid-block crossings.



KEY TAKEAWAYS:

The priority recommendations from this study reinforce the Convention Center's role as a key FLM node and align with recommendations from previous studies.

City of Miami Update of Bicycle Master Plan



This is an update of the City of Miami Bicycle Master Plan, to include area plans and incorporate pedestrian safety and mobility to help make the effort more utilitarian and appealing to a broader audience.

KEY TAKEAWAYS:

This plan supports FLM objectives by emphasizing multimodal access including access to transit and special event destinations.

Key Biscayne - Crandon Boulevard Safety and Mobility Study

The Crandon Boulevard Multimodal Plan purpose is to improve mobility, connections, safety, and functionality of the corridor to better accommodate all users of the right of way including pedestrians, scooters, personal vehicles, buses, shuttles, golf carts, and cyclists.

The study is separated into two phases – the first is a concept development phase, where existing conditions were assessed, and three build alternatives were developed. After obtaining public input on the alternatives, the preferred alternative is advanced to phase 2, where 30% design documents are developed for the preferred alternative identified in the previous phase. The City is seeking funding to advance the project to construction.

KEY TAKEAWAYS:

Crandon Boulevard serves as a vital connector on Key Biscayne, linking the residential village and recreational areas to the mainland. The study emphasizes accommodating all users including pedestrians, cyclists, scooters, transit riders, golf carts, and vehicles to bring a comprehensive approach to first-last mile connectivity.

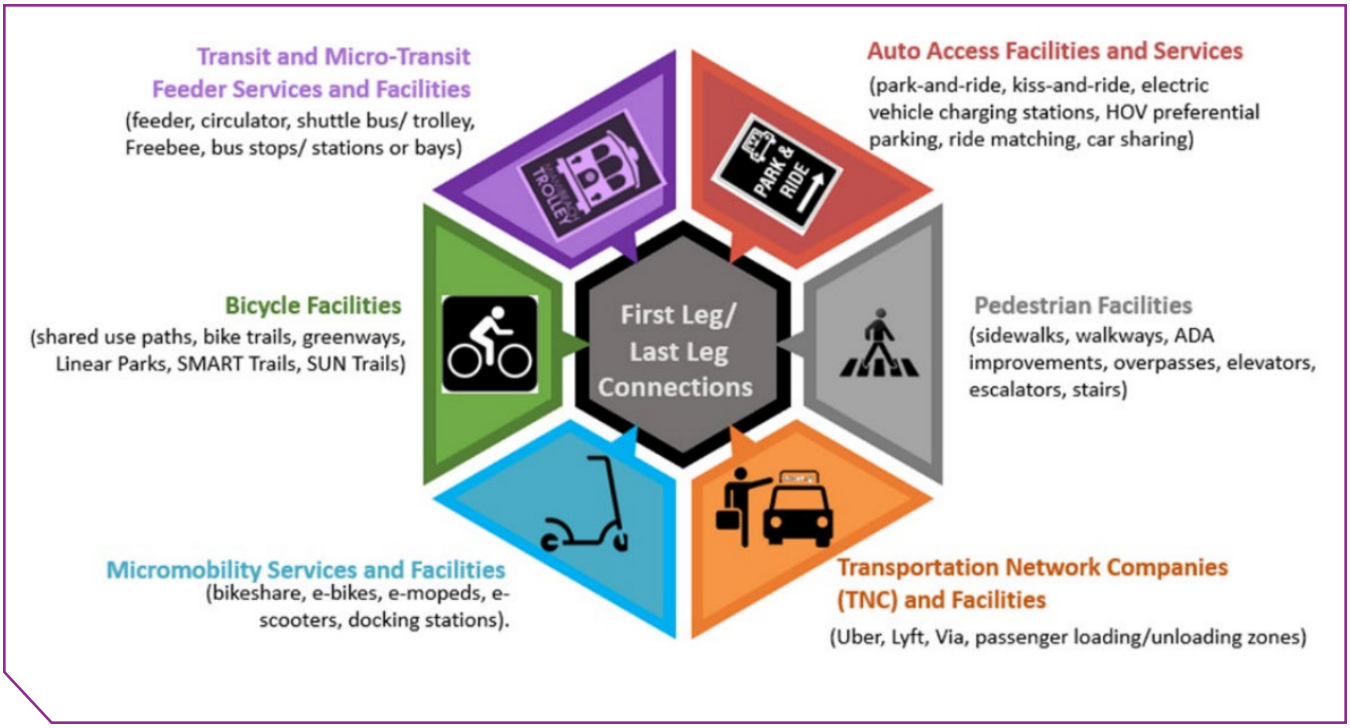
Five-Year Implementation Plan of the People's Transportation Plan
Thirteenth Annual Update Covering Fiscal Years 2025–2029

The Citizens' Independent Transportation Trust (CITT) 5-Year Implementation Plan documents the current implementation status of surtax-funded People's Transportation Plan (PTP) projects as well as their progress versus the baseline provided in the previous year's initial plan. This includes references to projects from the County's FY 2024-2025 Adopted Capital Budget. CITT encourages all the partners to continuously explore options and improve FLM connectivity and enhance non-motorized transportation system. In the 'First and Last Mile/Leg Connectivity and Shared Mobility' section of the plan, a summary of the different FLM initiatives undertaken by the county is provided and catalogues the current state of the County's bicycle and pedestrian facilities. It highlights recent changes to the code that incentivize the FLM.

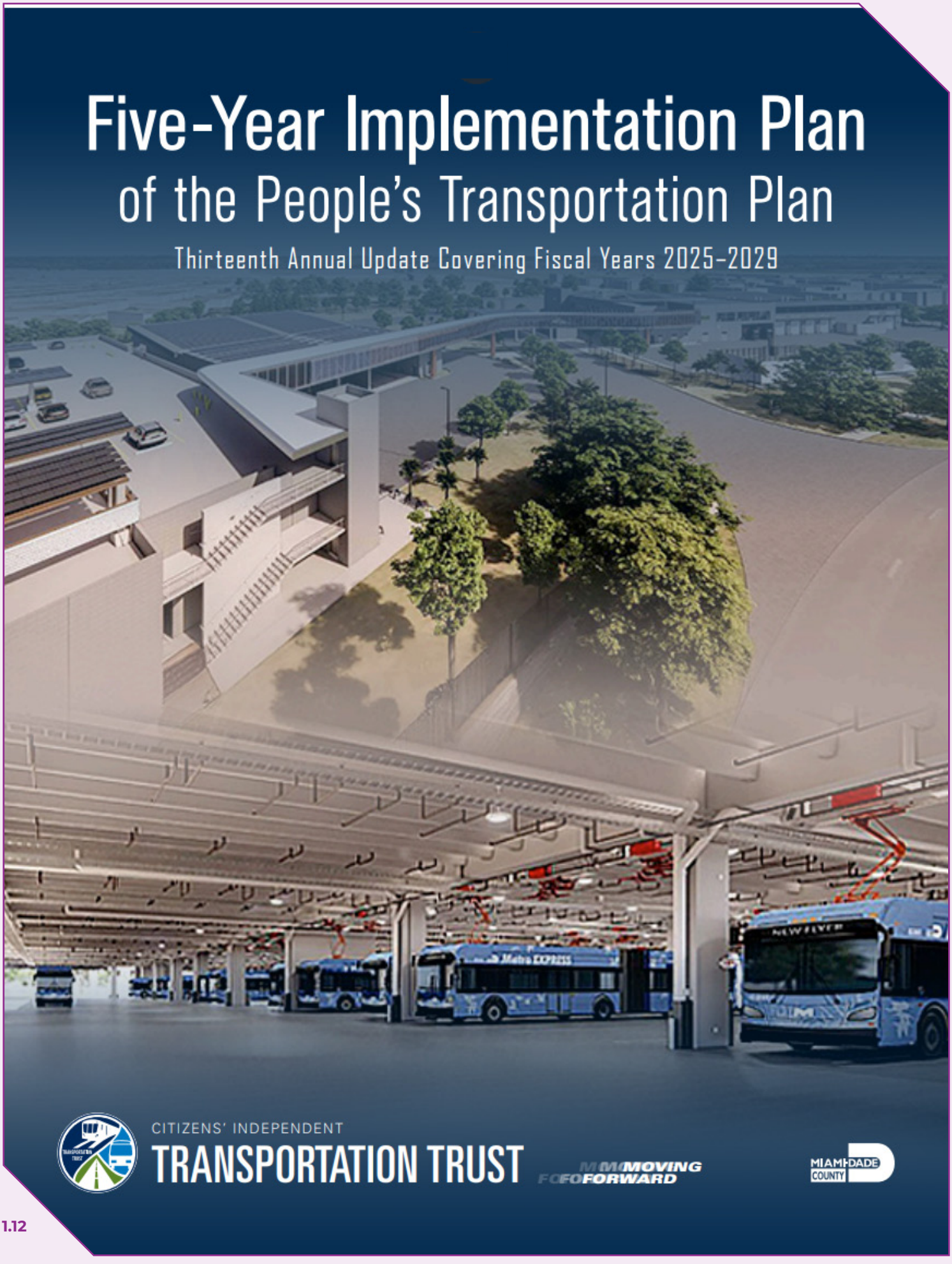
The Office of CITT through its Strategic Planning Consultant is currently assessing existing and proposed non-motorized infrastructure, particularly those that enhance FLM connections to existing and planned transit systems and multimodal facilities across different municipalities in Miami-Dade County. The findings of this analysis will help inform strategies to advance the County's multimodal transportation vision, aligning municipal efforts with county-wide objectives for cleaner, safer, and more efficient mobility solutions.

KEY TAKEAWAYS:

This study catalogs existing FLM initiatives, recent code changes that incentivize such improvements, and highlights efforts to align capital investments with broader multimodal goals. The CITT is actively assessing non-motorized infrastructure that enhances FLM connections to existing and future transit and multimodal facilities across Miami-Dade County municipalities to help identify investments that can catalyze municipal investment in transit projects.



Five-Year Implementation Plan
of the People's Transportation Plan
Thirteenth Annual Update Covering Fiscal Years 2025–2029



CITIZENS' INDEPENDENT
TRANSPORTATION TRUST

MOVING FORWARD

MIAMI-DADE COUNTY

2050 Bicycle-Pedestrian Master Plan
Miami-Dade TPO

In September 2024, the TPO adopted the 2050 Long Range Transportation Plan (LRTP). A Bicycle-Pedestrian Master Plan was developed as part of this document. The master plan considers destinations frequented by bicyclists and pedestrians, like schools and high employment areas, and documents high-injury areas, bicycle and pedestrian crashes and fatalities, transit ridership patterns, and historically disadvantaged neighborhoods in Miami-Dade County. The plan identifies a network of bicycle and pedestrian projects. Overall, the plan proposes developing a variety of new facilities including the following

1. 321.8 miles of shared-use paths
2. 87.6 miles of side paths
3. 29.1 miles of protected bike lanes
4. 2.5 miles of buffered bike lanes
5. 100.4 miles of SMART Plan Terminal connectors
6. 1.87 miles of facility improvements



KEY TAKEAWAYS:

The plan prioritizes infrastructure improvements near schools, job centers, high-crash areas, and historically disadvantaged neighborhoods to align with FLM objectives. With over 540 miles of proposed multimodal facilities, including protected bike lanes, shared-use paths, and SMART Plan terminal connectors, the plan offers an extensive inventory of potential FLM linkages.

2025 Downtown Miami Master Plan

Prepared in 2009, the 2025 Downtown Miami Master Plan prioritizes improved access to special event venues by proposing the development of a new Convention/Conference Center in the CBD North area and the enhancement of major parks such as Museum Park to host large-scale events and public gatherings. The plan promotes a waterborne transportation network linking downtown to waterfront destinations, the creation of Freedom Plaza as a public gathering space, and a trolley service to connect major event venues and commercial centers. Improved pedestrian and bicycle connections to downtown parks and open spaces are also identified to support event accessibility.

KEY TAKEAWAYS:

Key recommendations from this plan would expand pedestrian and bicycle linkages and a waterborne transportation network to align with FLM strategies focused on non-motorized and shared mobility solutions.

Miami-Dade Transit Development Plan

The Transit Development Plan (TDP) is a ten-year strategic vision that helps the Miami Dade Department of Transportation (DTPW) operate and grow a clean, safe, convenient, and reliable transit system. The TDP is updated annually through the FDOT process known as the Annual Progress Report (APR). The TDP provides an evaluation of DTPW's existing transit system, identifies service improvements as well as capital investments to inform the TDP financial plan which is based on available funding.

The TDP incorporates all modes provided of public transit provided by DTPW as well as regional and national connections. One example is the 'Go-Connect Program' which serves as a first-last mile solution for specific areas in the county. In addition, DTPW partners with local municipalities and private contractors to fill the service gaps in the overall transit network.

The next Major Update to the TDP is scheduled for completion in early 2026.

KEY TAKEAWAYS:

The TDP integrates FLM into both planning and operational strategy to ensure that service gaps are addressed comprehensively and reinforces the importance of embedding FLM improvements into long-range transit and funding priorities.

The Underline Masterplan

The Miami Underline Project is transforming 120 acres beneath the Metrorail guideway into a 10-mile linear park and urban trail. It spans from the Miami River at Brickell to the Dadeland South Metrorail Station and is being executed in three phases. The project includes pedestrian and bicycle paths, recreational areas such as butterfly gardens, playgrounds, sports courts, and infrastructure upgrades like improved intersections, lighting, and wayfinding. Sustainability is integrated through native plants and green stormwater management systems.

Phase 1, the Brickell Backyard, opened in 2021, Phase 2, a 2.14-mile segment, opened in 2024, and Phase 3, covering 7.36 miles, is under construction. The completed Underline will provide accessible public space for over 107,000 residents within a 10-minute walk. Completion is scheduled for 2026.

KEY TAKEAWAYS:

This plan demonstrates how public space can serve as FLM connectivity in a dense urban corridor and directly supports access to major transit nodes. It is recommended that major special events include the completed sections of the Underline in traffic management planning efforts.

Miami Downtown Development Authority (DDA) Special Events Traffic Management Plan

In 2017, the Miami DDA prepared comprehensive Event Transportation Management Plans (ETMP) for the major downtown event venues to improve traffic flows, reduce pedestrian vehicle conflicts, and reduce congestion during the time of events. The Miami DDA brought together the Miami Heat/The Arena, the Adrienne Arsht Center, Bayfront Park Management Trust, Pérez Art Museum Miami and the Frost Science Museum, as well as over 18 stakeholders from various city, county and private agencies that are directly affected by ingress/egress traffic flows during major events.

KEY TAKEAWAYS:

This plan highlights the importance of coordinated, venue-specific strategies to manage traffic and pedestrian flows during special events in Downtown Miami. Given the diversity in event size, timing, and audience behavior across major venues, the study identifies the need for tailored ingress and egress plans. It also stresses the value of interagency collaboration among transportation departments, law enforcement departments, and transit agencies. Lastly, the ETMP identifies best practices such as the use of adaptive traffic signals, CCTV monitoring, and real-time parking data as critical tools to enhance event mobility and reduce congestion.

Rickenbacker Master Plan Project

DTPW is developing a master plan that will provide for a holistic planning framework for the Causeway. The scope of the Master Plan includes the identification of short-term projects aimed at funding within the Capital Improvement Program (CIP), and long-term projects for future funding opportunities. The Rickenbacker is of particular importance to this study because it is the single roadway access point to the Village of Key Biscayne and Virgina Key.

The master plan will provide the opportunity to solidify recommendations into a coordinated plan that will solidify traffic flow while creating a multimodal safety environment and include continued coordination with the Village of Key Biscayne, the Miami-Dade Sherriff's Office, Miami-Dade Parks, Recreation and Open Spaces Department (PROS), as well as other stakeholders.

The study area extends along SW/SE 26th Road and the Rickenbacker Causeway from the I-95 to the Key Biscayne Village boundary. This effort is underway; Design should begin in 2025 with construction expected to begin in 2027.

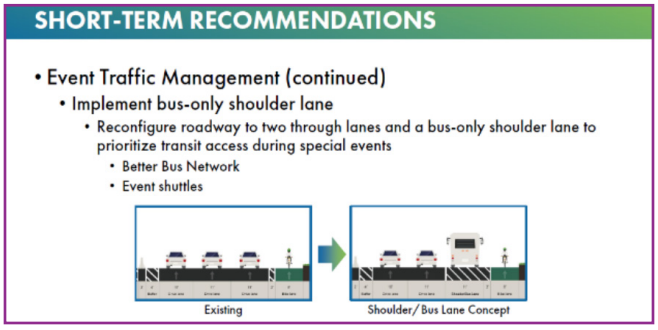
The figures to the right summarize the short-term recommendations for event traffic management proposed by the study. The figure to the right provides key recommendations is on-site parking management and alternative transportation modes from designated park-and-ride lots.

The study recommends a reconfiguration of the right-of-way by repurposing one through lane as a bus-only shoulder lane, which would enable the prioritization of transit access during special events, as depicted in the figure to the right.

KEY TAKEAWAYS:

Short-term recommendations of this plan include on-site parking coordination and a repurposed bus-only shoulder lane for special events to manage surges in demand with major special events. The plan emphasizes coordination with local municipalities, law enforcement, and parks agencies for cross-agency collaboration, reiterating the need for successful FLM implementation across jurisdictional boundaries on the single-access facility.





STATE

State level documents that identify FLM needs and solutions in Miami-Dade County are summarized below.

FDOT District 6 Bicycle Network Connectivity Assessment

In 2022, FDOT District Six along with Miami-Dade County partners finalized the Miami-Dade Connectivity Assessment to build upon previous efforts by focus on cohesiveness and connectivity. In this plan for District 6, FDOT identified special event venues such as sports arenas and convention centers as critical Community Fixtures. Bicycle connections to these destinations are prioritized through Point of Interest (POI) Connections, designed to provide direct access with dedicated facilities such as shared-use paths or protected bike lanes. Recognizing that many major venues are located along high-stress roadways, the Assessment highlights the need for physical separation between cyclists and motor vehicles, particularly in areas of high pedestrian activity. Design strategies include implementing dual treadway shared-use paths, buffered facilities, and speed reduction measures.

KEY TAKEAWAYS:

This assessment emphasizes the need for direct, protected bike access to high-demand destinations which aligns with FLM strategies to increase comfort and safety for cyclists in areas with heavy pedestrian and vehicular traffic. These design recommendations provide actionable guidance for improving multimodal access as part of the FLM planning process.

Special Event Transportation Service Planning and Operations Strategies for Transit

This report was prepared to create a guide for Florida Transit Agencies for special event services. The report looks at current practices at Florida transit agencies, discusses regulations and limitations imposed on the transit agencies, then explores best practices and guidelines for transit agencies to support special events.

KEY TAKEAWAYS:

The findings of this report are oriented to transit operators, and consequently the recommendations are more specialized than other reports, but there are common themes that carry through to this study. The recommendations surrounding planning for the special event early, coordinating, and communicating efforts are relevant across the board and can help ensure the successful provisioning of transit services for special events.

The best practices identified by the report include the following

1. Policy and procedure – establishing policies at the governing board level can serve as a foundational framework for providing transportation services, including the types of services that are appropriate. Other policy considerations pertain to safety, including limitations on operating hours for drivers.

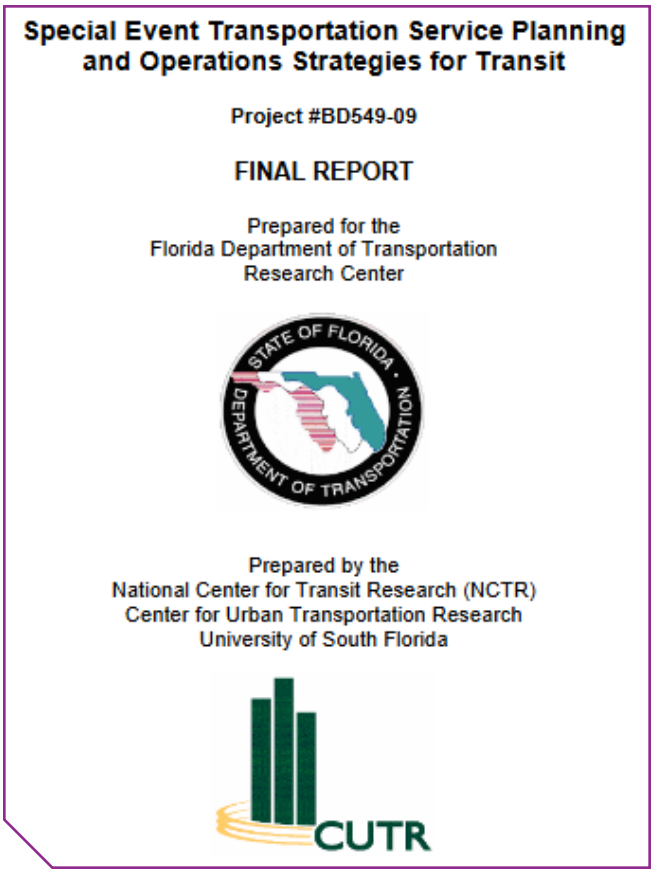
2. Planning and coordination – this includes internal coordination to define routes, stop locations, and other route logistics, including potential park-and-ride facilities. Other recommendations are focused on external alignments with other agencies, including the event sponsor.

3. Operations recommendations are focused on vehicles, routes, and employee assignments, and signage.

4. Communications – internal and external communications recommendations are focused on ensuring the transit agency and personnel are informed of the efforts, including on-site supervisors. Communications to the users of the service is essential, if the service entails a change to existing routes, then informing riders of the change, while also advising the event attendees and organizers of the routes so that the information can be disseminated and help ensure the special event service is successful.

5. Data collection – recommendations here are focused on meeting federal regulations, as well as future planning activities.

6. Post-event debriefs – these are useful, to evaluate performance, understand what was successful and what needs improvement. These lessons can be shared with other transit agencies.



MAJOR EVENTS

Major events for the purpose of this study are any event that has a capacity/draw of one thousand people or more. The list of events occurring in Miami-Dade County throughout the year are listed below in the Events Matrix Table. Available data on traffic patterns, transit ridership, and activity centers during previous major special events are summarized and analyzed below in Major Event Detailed Matrix.

EVENTS MATRIX

The matrix below catalogues some of the major event venues in Miami-Dade County and key events that occur at these locations.

No	Venue	Events
1	Hard Rock Stadium	Dolphins Games, Bowl Games, Concerts
2	Miami International Autodrome	Formula 1 Grand Prix
3	Kaseya Center	Miami Heat/ Concerts
4	Bayfront Park	Ultra Music Festival
5	Miami Beach Convention Center	Art Basel and Miami International Boat Show
6	South Bayshore Drive	Coconut Grove Arts Festival
7	SW 8th Street	Carnival at Calle Ocho
8	Tamiami Park	Miami-Dade County Fair & Exposition
9	Homestead Miami Speedway	Formula F Miami ePrix and NASCAR
10	Various locations in Miami Beach	Miami Beach F&W Festival
11	Pitbull Stadium at FIU	FIU Football/Soccer
12	Fair Expo Center	Miami-Dade County Youth Fair
13	Loan Depot Park	Miami Marlins, Concerts
14	Miami Freedom Park (Future)	Sporting Events
15	Marine Stadium	Concerts, Country Bay Music Fest

BEST PRACTICES

- LOCAL
- FEDERAL

To support the development of effective FLM strategies for major special events, it is important to examine the best practices already in use at the local and national levels. This section highlights relevant policies, permitting procedures, and operational frameworks that demonstrate how jurisdictions have addressed the planning, coordination, and management of large-scale events.

The examples presented range from local, municipal requirements in Miami-Dade to federal guidance from the Federal Highway Administration (FHWA). These practices provide context for potential strategies that can be adapted or refined for implementation in Miami-Dade County.

LOCAL

City of Miami-Beach Special Events Requirements and Guidelines

The City of Miami Beach Special Events Requirements and Guidelines outline the process and principles for hosting special events. Applicants must present their proposed activities to neighborhood associations and relevant City departments to ensure compatibility with surrounding areas. This review process evaluates the City's resources, including personnel and public property, to safeguard public safety, health, and welfare.

The Special Events Ordinance (Chapter 12, Article II, Section 12-5 of the Miami Beach City Code) and associated guidelines aim to:

1. Provide the City with advance notice of events for adequate planning of services such as security, sanitation, parking, and traffic control.

2. Protect and conserve public spaces like beaches, parks, and rights-of-way by limiting the number and type of events held there.

Proposed events with attendance of 200 or more people on public property, are reviewed by an Internal Special Events Committee, which is composed of representatives from various City departments. This committee meets monthly to evaluate and comment on plans for site, security, parking, transportation, and other event aspects. The committee prepares action plans to mitigate special event impacts. During Major Event Periods, enhanced City services may be mandated to alleviate stress on municipal resources.

As part of their permitting process, the city has outlined Major Events Periods (MEP) during which the issuance of special events permits may be prohibited. The MEP are defined as having high intensity of city services.

The city established a Major Events Committee (MEC) to create a customized action plan for each announced event. However, city departments have their own specific action plan to address their efforts and responsibilities associated with planned upcoming major events.

Street closures are permitted but must be approved by the chief of police and the city's Public Works Director before obtaining the final approval from the city manager. The city manager may require the applicant proof of "sign-off" from a majority of landlords and/or residents) whose vehicular access would be directly impacted depending on the location. State road closure must receive additional FDOT permits at least 30 days prior to the event. County road closures must be processed by the county at least 30 days prior to the event.

KEY TAKEAWAY:

PRO: The Major Events Committee and the identification of MEP help streamline the coordination between city departments and limit the number of additional events during already busy periods.

CONS: The process delineated is still vague and open to interpretation and lacks a general framework for major types of events. For street closures, there is no language proposing alternate commuting solutions for event attendees and impacted residents.

Miami-Dade Parks, Recreation and Open Spaces (PROS) Special Events Permit

MDC PROS has 21 possible event rental locations throughout their county facilities (some have multiple event venues). Depending on the type of event, the applicant must obtain a Short-Term Permit from MDC Regulatory and Economic Resource (RER). Class A, B and C events require the presence of Miami-Dade off duty police to direct traffic flow and manage vehicle parking. Fire and Rescue staff requirements are determined on a case-by-case basis.

KEY TAKEAWAY:

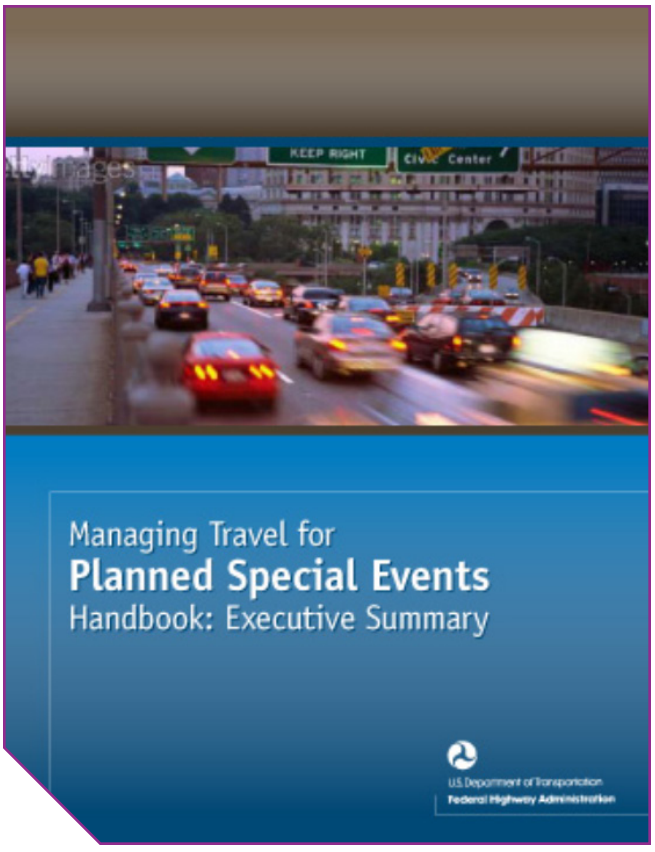
PRO: The website provides details about the permitting process and contact information of key contacts.

CONS: The is no mention of a special events plans and impact mitigation strategies. It is unclear what the protocol for vehicular and pedestrian/bicycle access to large events at parks that result in large traffic volumes.

FEDERAL

FWHA Managing Travel for Planned Special Events Handbook

This technical reference handbook provides guidance on the techniques and strategies that practitioners may use to: (1) plan for and operate a special event and (2) manage special events in a region. In turn, individual managers and decision makers gain an understanding of the collective tasks to develop and implement solutions for managing travel during a planned special event. Transportation operations vary, and identifying issues and advance planning activities can mitigate problems and lead to successful travel management.



Stakeholders must predict travel demand and efficiently utilize the excess transportation capacity, parking facilities, and transit routes. One of the report's recommendations calls for providing and communicating modal choices to event attendees to minimize strains and capacity challenges for one particular transportation mode. Providing information through advance communications, as well as variable messaging signs rerouting travelers to alternatives can be effective strategies.

On the organizational side, integration of phases, from advance planning for future planned special events to post-event evaluation creates a process that allows for continuous improvement of transportation system performance from one planned special event to the next

Key recommendations from the report include the following: Events characteristics determine needs; Coordination is key; and it also explores how travel decisions can influence modes and routes for special event attendees.

The study highlights that different types of events have distinct logistical needs and recommends classifying events based on their specific characteristics. For instance, a single-venue event differs in requirements from one held across multiple venues, and a multi-day event involves more complex logistics than a single-day event.

The FHWA report recommends centralizing coordination and organization efforts to help overlapping jurisdictions coordinate responsibilities, needs and resources. Recurring meetings far in advance of the event can help facilitate this coordination. In the figure below FHWA Special Event Framework Phase identifies the recommended framework for special event coordination.

The steps include regional coordination to understand big picture needs, event operations planning, where specifics are discussed for events, implementation activities, including action items, followed by day-of-event efforts. Finally, a key to continued success is the implementation of post-event activities where lessons learned can be applied for future events.



CONCLUSION

• MAJOR EVENT DETAILED MATRIX

The literature review and data gathering tasks presented in this chapter offer a comprehensive framework to inform FLM connectivity planning, especially in the context of major special events. At the local level, Miami-Dade County has demonstrated a strong commitment to enhancing FLM through a series of coordinated studies and pilot programs led by agencies such as the TPO, DTPW, local municipalities, and the CITT. These efforts emphasize infrastructure investments, on-demand services, and multimodal integration tied closely to the SMART Plan and regional mobility goals. Notably, multiple studies including those for the South Dade TransitWay, Miami Beach Convention Center, and Crandon Boulevard demonstrate how pedestrian, bicycle, and transit improvements can reduce auto-dependency and improve access to high-demand destinations and event venues.

State-level initiatives, such as the FDOT District 6 Connectivity Assessment, reinforce the need for physical separation and protected infrastructure, particularly in high-stress corridors. Meanwhile, the Miami-Dade TDP highlights the role of long-term transit planning in institutionalizing FLM strategies through operational partnerships and funding mechanisms.

National best practices, such as those from the FHWA's Managing Travel for Planned Special Events Handbook, demonstrate the importance of centralized coordination, early planning, multimodal demand management, and post-event evaluations to continuously refine special event travel strategies. Locally adopted permitting procedures such as those by the City of Miami Beach and Miami-Dade PROS demonstrate the need for better integration of transportation planning into event management workflows, with clearer protocols for multimodal access, traffic mitigation, and interagency coordination.

In addition, the inventory of major events and venues provided in this chapter helps to contextualize the scale and diversity of gatherings across the county, supporting a targeted approach to FLM planning. Ongoing data collection efforts, including traffic and ridership analysis, will further inform the study's recommendations through evaluation of real-world mobility patterns during high-attendance events.

The findings in this chapter confirm that while a wide range of planning frameworks and infrastructure investments have laid the groundwork for FLM success, additional coordination, design consistency, and integration with event management processes are necessary. This review serves as a baseline for the development of context-sensitive FLM strategies and implementation plans in the subsequent phases of the study.

MAJOR EVENT DETAILED MATRIX

Event	Duration	Duration (Grouping)	Time Period	Location	Major Special Event (Yes/No)	Capacity (Seating/ Crowd Size)	Frequency	Type
Art Basel Miami Beach	4-7 days	All days	December	Miami Beach Convention Center, Miami Beach	No	Medium	Annually	Arts/Performing Arts
Art Deco Weekend	2-3 days	Weekend plus	January	South Beach	Yes	Medium	Annually	Arts/Performing Arts
B2B Marketing Expo Miami	2-3 days	Weekday	May	Miami Beach Convention Center, Miami Beach	No	Large		Conference
Beach Polo World Cup	4-7 days	All days	November	South Beach	Yes	Large	Annually	Sports
Calle Ocho Music Festival	<=1 day	Weekend	March	8th Street between SW 12th and 27th Avenue,	No	Medium		Music
Carnaval Miami	>=4 weeks	All days	February	Greater Miami & Miami Beach	No	Medium		Arts/Performing Arts
Carnaval on the Mile	2-3 days	Weekend	March	Downtown, Coral Gables	No	Medium		Sports
Celebrate ORGULLO	1-3 weeks	All days	October	Greater Miami & Miami Beach	No	Medium		Arts/Performing Arts
Christmas Wonderland	>=4 weeks	All days	November - January	Tropical Park, Coral Gables	Yes	Large	Annually	Arts/Performing Arts
Coconut Grove Arts Festival	2-3 days	Weekend plus	February	Regatta Park, Coconut Grove	No	Medium	Annually	Arts/Performing Arts
CoMotion	2-3 days	Weekday	April	Multiple venues in Miami	No	Large		Conference
Deering Seafood Festival	<=1 day	Weekend	April	Palmetto Bay	No	Medium		Food
Formula 1 Crypto.com Miami Grand Prix	2-3 days	Weekend plus	May	Hard Rock Stadium , Miami Gardens	Yes	Very Large	Annually	Sports
Gravel Miami	<=1 day	Weekend	February	Homestead	No	Medium		Sports
IFE-ILE Afro-Cuban Dance Festival	2-3 days	Weekend plus	August	HistoryMiami Museum, Downtown Miami	No	Medium		Arts/Performing Arts
Inter Miami CF	>=4 weeks		February - October	Miami Freedom Park	No	Medium		Sports
International Ballet Festival of Miami	1-3 weeks	All days	July	Multiple venues in Miami Beach	No	Medium		Movie
Jazz in the Gardens Music Fest	2-3 days	Weekend	March	Hard Rock Stadium , Miami Gardens	No	Large		Music
King Mango Strut	<=1 day	Weekend	January	Multiple Locations, Coconut Grove	No	Medium	Annually	Arts/Performing Arts
Lexus Corporate Run	<=1 day	Weekday	April	Downtown Miami	No	Medium		Sports
Life Time Miami Marathon and Half-Marathon	<=1 day	Weekend	January	Multiple venues in Miami	No	Medium		Sports
LIV Golf Miami Tournament	2-3 days	Weekend plus	April	Trump National , Doral	Yes	Large	Annually	Sports
Longines Global Champions Tour	4-7 days	All days	April	Miami Beach	No	Medium		Sports
Miami Beach Pride	2-3 days	Weekend plus	April	Various locations throughout Miami Beach	Yes	Medium		Arts/Performing Arts
Miami Book Fair	1-3 weeks	All days	November	Miami Dade College , Wolfson Campus	No	Small	Annually	Other

MAJOR EVENT DETAILED MATRIX

Event	Duration	Duration (Grouping)	Time Period	Location	Major Special Event (Yes/No)	Capacity (Seating/ Crowd Size)	Frequency	Type
Miami Dolphins	>=4 weeks		August-January	Hard Rock Stadium , Miami Gardens	No	Very Large	Continually	Sports
Miami Dragon Boat Festival	<=1 day	Weekend	October	Miami Beach , Haulover Park	No	Small		Sports
Miami Film Festival	1-3 weeks	All days	April	Various locations throughout Miami	Yes	Medium	Annually	Movie
Miami HEAT	>=4 weeks		October-June	Kaseya Center, Downtown Miami	No	Large	Continually	Sports
Miami International Auto Show	1-3 weeks	All days	September	Miami Beach Convention Center, Miami Beach	No	Large	Annually	Arts/Performing Arts
Miami Marlins	>=4 weeks		March-October	loanDepot Park, Miami	No	Medium	Continually	Sports
Miami Open	2-3 weeks	All days	March	Hard Rock Stadium , Miami Gardens	Yes	Very Large	Annually	Sports
Miami Sailing Week	2-3 days	Weekend	March	Regatta Park, Coconut Grove	No	Large		Sports
Miami Swim Week	4-7 days	All days	June	Paraiso Fashion Tent at Collins Park, Miami Beach	Yes	Large	Annually	Arts/Performing Arts
Miami-Dade Countryfest	2-3 days	Weekend	April	Tropical Park, Coral Gables	Yes	Large	Annually	Sports
Optimist International Junior Golf Championship	4-7 days	All days	July	Trump National , Doral	No	Large	Annually	Sports
Orange Blossom Classic	<=1 day	Weekend	September	Hard Rock Stadium , Miami Gardens	No	Very Large		Sports
Out (Loud) in the Tropics	>=4 weeks	Weekend plus	April	Multiple venues in Miami	No	Medium		Arts/Performing Arts
Redland International Orchid Festival	2-3 days	Weekend plus	October	Fruit & Spice Park	No	Medium	Annually	Nature
Rolling Loud	2-3 days	Weekend plus	December	Hard Rock Stadium , Miami Gardens	Yes	Very Large	Annually	Music
South Beach Jazz Festival	4-7 days	All days	January	South Beach	Yes	Large	Annually	Music
South Beach Wine & Food Festival	4-7 days	All days	February	South Beach	No	Medium		Food
Straight Talk Wireless 400 NASCAR Cup Series	<=1 day	Weekend	October	Miami Speedway, Homestead	Yes	Large		Sports
The Business Show Miami	2-3 days	Weekday	May	Miami Beach Convention Center, Miami Beach	No	Large		Conference
The Orange Bowl	<=1 day	Holiday	New Years	Hard Rock Stadium , Miami Gardens	Yes	Very Large		Sports
The Original Miami Beach Antique Show	4-7 days	All days	January	Miami Beach Convention Center, Miami Beach	No	Medium	Annually	Arts/Performing Arts
The Youth Fair	1-3 weeks	All days	March	Tamiami Park, Miami	No	Small		Other
Ultra Music Festival	2-3 days	Weekend plus	March	Bayfront Park, Downtown Miami	Yes	Very Large	Annually	Music
URGE Miami Thanksgiving Festival	1-3 weeks	All days	November	Greater Miami & Miami Beach	Yes	Medium		Arts/Performing Arts
Winter Party Festival	4-7 days	All days	March	Multiple Locations, Miami Beach	No	Large		Music
Wynwood Pride	>=4 weeks	All days	June	Wynwood	No	Medium		Arts/Performing Arts

PROJECT WORKING GROUP 1
APRIL 8, 2025

PARTICIPANTS

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10. Morales, Francisco (FDOT)
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12. Yoda, Omar (DTPW)
13. Dallas, Cedric (DTPW)
14. Sciullo, Vince (DTPW)
15. Hernandez, Pedro (City of Miami)
16. Gonzalez, Joel (City of Miami)
17. Moreno, Chris (Village of Key Biscayne)
18. Sousa, Frank (Village of Key Biscayne)
19. Nelson, Vernita (Miami Gardens)
20. Albelo, Tony (Loud and Live)
21. Garcia, Jose (Dynamo Entertainment)
22. Suarez, Steve (Backstage Productions)
23. Fliss, Eric (Cultural Arts Center Cutler Bay)
24. Gonzalez, Mario (City of Miami Police Department)
25. Ramos, Jose A. (Miami-Dade Aviation)
26. Vargas, Jessica (SFRTA)
27. Crespi, Christina (DDA)
28. Miranda, Christopher (Key Biscayne)
29. Diaz, Angel (Miami Parking Authority)

Meeting Overview:

As part of this effort, the study team assembled Project Working Group (PWG) consisting of individuals representing public and private groups. These groups were invited to provide a comprehensive understanding of mobility needs during special events. Representative groups included transit agencies (DTPW and SFRTA), local municipalities, the City of Miami Parking Authority, and other Miami-Dade County Departments. Private sector groups included Loud and Live, Backstage Productions, and Dynamo Entertainment. In total, the PWG met three times over the course of the study. This section summarizes the first meeting.

Meeting Summary :

The meeting opened with Aileen Bouclé welcoming participants and outlining the purpose of the study, to develop first-last mile transportation recommendations that improve circulation and access for major Miami-Dade events with 1,000+ attendees. The consultant team highlighted the need for coordinated feedback from transportation agencies, law enforcement, municipalities, and event organizers. The study will build on existing models such as Miami-Dade's on-demand Metrorail program and aims to identify multimodal, innovative mobility solutions.

Stakeholders from agencies including FDOT, DTPW, cultural organizations, municipalities, and private event operators discussed challenges related to communication, event coordination, and traffic management. Key issues included the need for a centralized regional event calendar, recurring coordination meetings, clearer contacts for operations personnel, and better integration of law enforcement with broader event planning. Examples highlighted gaps in coordination—such as helicopter operations during large events or difficulty notifying all relevant agencies early in the planning process.

Participants also addressed infrastructure constraints, transit capacity, and traffic flow challenges. Representatives from Key Biscayne emphasized severe bottlenecks caused by single-access roadways, with residents sometimes facing hours-long delays during major events. Transit agencies noted the need for earlier notice when additional bus service might be needed and the importance of integrating event planning with ongoing major mobility projects. Communities such as Miami Gardens shared strategies like resident access passes to mitigate localized disruptions, while others discussed potential use of contraflow, dedicated bus lanes, or expanded shuttle services.

The discussion concluded with exploration of alternative transportation modes, rideshare and micro-mobility management, digital mapping partnerships, and improved transit promotion. Water shuttles, while effective in specific contexts, have limited capacity; dedicated bus lanes and better-managed rideshare zones were emphasized as essential. Participants also recommended partnering with navigation platforms like Waze, establishing park-and-ride options at large retail centers, extending transit service hours after major events, and creating centralized digital trip-planning tools similar to BART's Bartable website (https://bartable.bart.gov/.) Collectively, these strategies aim to reduce reliance on single-occupancy vehicles and enhance overall event mobility and safety.

CHAPTER 2: NEEDS ASSESSMENT AND IDENTIFICATION OF OPPORTUNITIES

INTRODUCTION:

This chapter assesses the current state of first and last mile (FLM) connectivity during major events and identifies specific mobility gaps that can result in traffic congestion and limited accessibility to event venues. The analysis in this chapter assesses existing conditions, including current transportation limitations and barriers, and seeks to identify where multimodal improvements can be made to special event access. The chapter is organized into four sections:

In the first section, five evaluation sites are identified. This list was developed from the work in the previous chapter, combined with feedback from the project team and the project working group.

Next, existing traffic conditions are documented. Through an origin-destination analysis, traffic conditions before and after major events are compared to typical traffic conditions. This analysis identifies where Miami-Dade residents experience the reduced travel speeds during special events.

The third section consists of a needs and opportunities analysis. In this section, a map series identifies deficiencies and potential solutions to the challenges each of the five special events areas experiences.

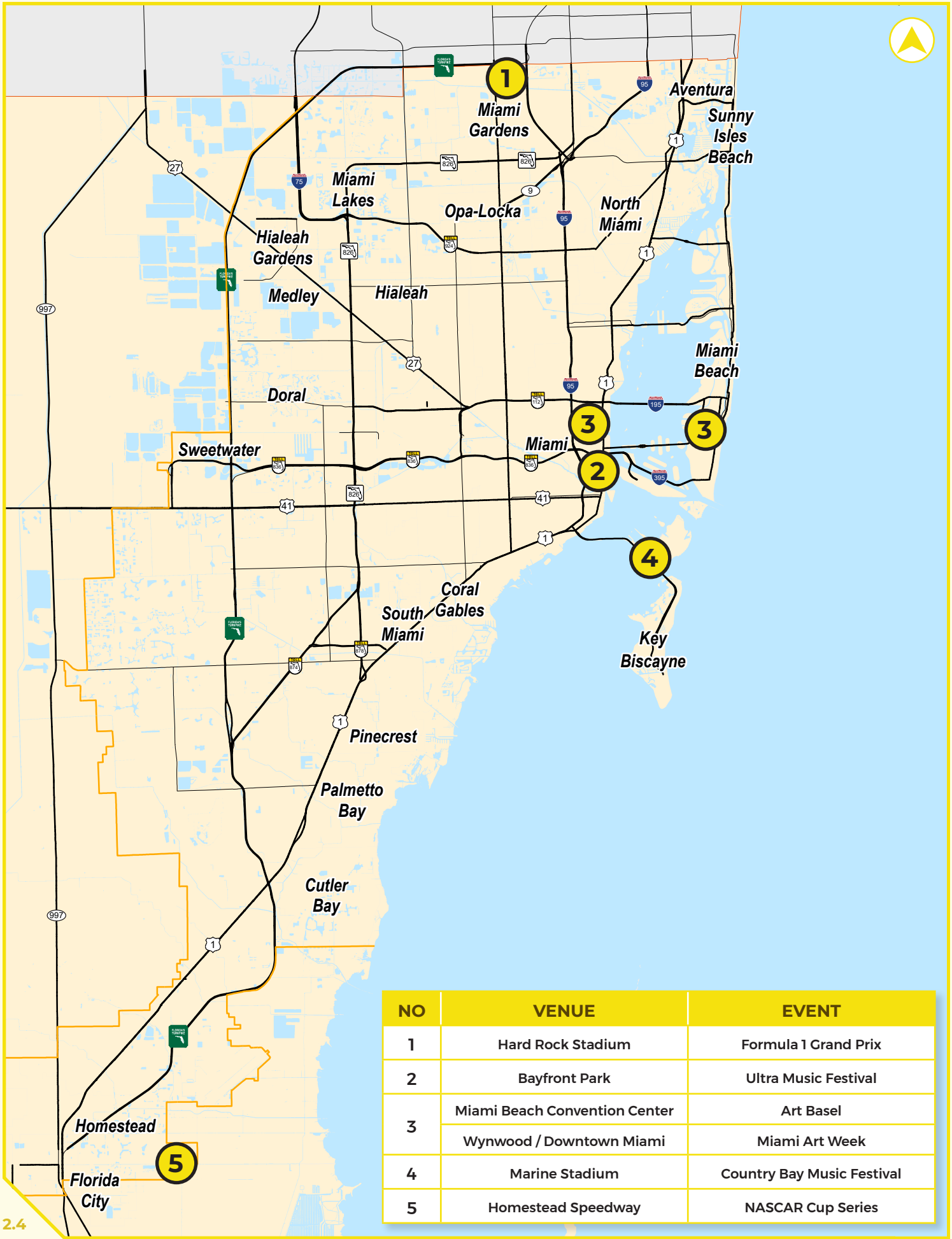
Finally, in the fourth section, service evaluation criteria are identified for different first/last mile services. These will be evaluated in the next chapter, and used to help formulate recommendations in the final chapter of this study.

FOCUS AREA SELECTION

- **Miami Gardens**
  Hard Rock Stadium,
  Formula 1 Grand Prix
- **Downtown Miami**
  Bayfront Park,
  Miami Ultra
- **Miami Beach**
  Miami Beach Convention Center/Wynwood,
  Miami Art Week
- **Virginia Key**
  Marine Stadium,
  Country Bay Music Festival
- **Homestead**
  Homestead-Miami Speedway,
  NASCAR Cup Series

Based on research so far, the study is shifting the focus to five emphasis areas. The areas showed high congestion due to major events, causing disruption to the surrounding areas and residents.

Major event venues evaluated across Miami-Dade span the northern, central, and southern parts of the County. In the north, Hard Rock Stadium anchors the Miami Gardens area. Central locations include Bayfront Park, Wynwood, Miami Beach, and Marine Stadium. In the south, Homestead-Miami Speedway was identified as a major NASCAR facility near Homestead and Florida City.



NO	VENUE	EVENT
1	Hard Rock Stadium	Formula 1 Grand Prix
2	Bayfront Park	Ultra Music Festival
3	Miami Beach Convention Center	Art Basel
	Wynwood / Downtown Miami	Miami Art Week
4	Marine Stadium	Country Bay Music Festival
5	Homestead Speedway	NASCAR Cup Series

MIAMI GARDENS: HARD ROCK STADIUM, *FORMULA 1 GRAND PRIX*

Hard Rock Stadium presents significant challenges and opportunities for first and last mile connectivity due to its position along the major thoroughfares of NW 199th Street and NW 27th Avenues, combined with the accessibility limitations of water bodies (canals), and the abutting residential neighborhoods. The surrounding area experiences heavy congestion during large-scale events, which can restrict both event mobility and local resident access. The stadium grounds have limited transit integration, placing a greater reliance on passenger vehicles for accessibility. Moreover, the track configuration used for the Formula 1 race limits the amount of on-site parking availability, as the racetrack extends throughout the stadium grounds.

First-last mile solutions for the Hard Rock Stadium pose unique challenges, including a limited street grid and the presence of the Turnpike limiting access on the eastern side. There are opportunities to alleviate mobility challenges here, including expanding shuttle services to transit hubs in Aventura and the Golden Glades Multimodal Transportation Facility.



DOWNTOWN MIAMI: BAYFRONT PARK, *MIAMI ULTRA*

Downtown Miami is a dense urban environment that frequently hosts large-scale events such as the Ultra Music Festival at Bayfront Park. Access limitations contribute to significant congestion before and after events, straining the surrounding street network and overwhelming curb space. Events running into the late evening are beyond existing public transportation operating hours creating a need for extended service. While parking availability exists in surrounding areas, there is a lack of transit connections to surplus parking garages and lots. This area presents a valuable opportunity to explore service-based demand strategies, including on-demand options and enhanced fixed-route operations.

Downtown Miami has the best transit connections in the region, with access to regional rail, heavy rail, the Metromover, and various bus routes.



MIAMI BEACH: MIAMI BEACH CONVENTION CENTER/WYNWOOD, *MIAMI ART WEEK*

Miami Beach and Wynwood experience intense traffic congestion during Miami Art Week due to the large number of events hosted, especially by the Miami Beach and Mana Wynwood Convention Centers. Traffic conditions are exacerbated due to the scale of the event: dozens of art galleries, pop-up events, and special event spaces being hosted simultaneously. This results in constrained street networks in these areas, triggering event-related surges in rideshare and private vehicle use, and causing delays for public transit vehicles. Miami Beach is further challenged by limited direct transit connectivity from the mainland with just three roadways linking the two areas: the MacArthur, Venetian, and Julia Tuttle Causeways. These factors underscore the need to explore on-demand and water-based mobility alternatives that reduce the number of passenger vehicles transiting between the activity hubs.



VIRGINIA KEY: MARINE STADIUM, *COUNTRY BAY MUSIC FESTIVAL*

Home to some of Miami-Dade County's southernmost beaches, Virginia Key is a major destination for both residents and tourists. These visitors are drawn by The Miami Seaquarium, Hobie Beach, Marine Stadium Marina, and Historic Virginia Key Park, among other attractions.

Virginia Key also hosts major events, including music festivals, and boat shows. However, a single road, the Rickenbacker Causeway, links Virginia Key and Key Biscayne to the mainland. A busy weekend can draw tens of thousands of visitors to the area's parks and recreational facilities, which, when combined with a special event can trigger significant travel delays. During events, the causeway becomes heavily congested, impacting emergency response times.

These issues are exacerbated by pockets of limited cell service and a lack of distinct drop-off zones and pedestrian facilities.



HOMESTEAD: HOMESTEAD-MIAMI SPEEDWAY, *NASCAR CUP SERIES*

Homestead Speedway hosts a variety of motorsport events, such as the NASCAR Cup Series, that draw significant attendance in southern Miami-Dade County. Homestead's location at the south end of Miami-Dade County means that most attendees arrive by private vehicle, often leading to major roadway congestion. With few public transit options in the area and large volumes of vehicles, the surrounding road network easily becomes overwhelmed, affecting residents and Speedway attendees. These conditions create a valuable opportunity to explore first and last mile improvements such as designated drop-off zones, shuttle services to off-site parking, and transit options that improve flow on the surrounding roadways.



SPECIAL EVENTS ACTIVITY CENTER IDENTIFICATION

- **Methodology**
- **Miami Gardens**
  Hard Rock Stadium,
  Formula 1 Grand Prix
- **Downtown Miami**
  Bayfront Park,
  Miami Ultra
- **Miami Beach**
  Miami Beach Convention Center/Wynwood,
  Miami Art Week
- **Virginia Key**
  Marine Stadium,
  Country Bay Music Festival
- **Homestead**
  Homestead-Miami Speedway,
  NASCAR Cup Series

Using the sites identified in Section 1, this section evaluates the impact of the special events on traffic conditions in the surrounding areas. To complete this analysis, an origin-destination analysis was conducted using big data derived from mobile phones and vehicular GPS devices.

To understand the impacts, traffic was evaluated before and after the selected special event dates and compared to baseline traffic conditions on typical days.

Based on this analysis, differences in average speeds are compared between the event days and the baseline conditions, identifying streets with traffic up to 325% slower than the average speed. These hotspots are mapped on maps showing pre-event and post-event differences from baseline conditions.

This analysis informs the needs and opportunities in Section 3 and will help guide this report's final recommendations.

METHODOLOGY

The objective of this analysis is to identify the impact of five selected special events on local traffic operations surrounding the event locations. To achieve this objective, the following steps were taken:

Study Area and Time Selection

Event locations were used to develop an area of influence in a 5-mile radius for each event. The analysis focused on two timeframes per event: a "Pre" period (typically 2–3 hours before the scheduled start) and a "Post" period (typically 2–3 hours after event conclusion), summarized in the Events and Analyses Dates and Timeframes table on the following pages.

Data Collection

Traffic statistics were obtained from TomTom, a leading provider of big data derived from floating car sources, including GPS-enabled vehicles and mobile devices. TomTom's dataset offers real-time traffic movement information, enabling a detailed evaluation of travel patterns associated with each event. TomTom data is updated regularly and includes a two-year historical archive. Covering 501 cities across 62 countries on six continents and encompassing over 458 billion miles of trips, it evaluates cities worldwide based on their average travel time and congestion levels, providing access to valuable and actionable insights.

TomTom data was downloaded for each event's area of influence in Pre- and Post- time blocks for their analysis and baseline dates shown in Table 1. The data includes both passenger cars and heavy ground vehicles, and considers all roadways (i.e., local roads, interstate highways, etc.). To ensure data reliability, only observations involving a minimum of 50 vehicle samples were considered.

Data Processing and Analysis

Traffic conditions on the event dates were compared to baseline conditions, which were typically seven days prior to the event. In one instance, the standard baseline date coincided with a major holiday weekend and was adjusted to seven days following the event to avoid holiday traffic. The resulting traffic data was processed inside the TomTom platform and presented here as a Percent Difference from the baseline, reflecting relative changes in travel speed during the Pre and Post-event windows. Average vehicle speed was used to demonstrate the impact of the special event on traffic operations.

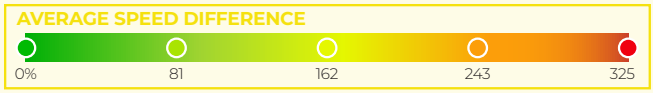
Events and Analyses Dates and Timeframes

The following table depicts characteristics of the evaluated events. This includes event dates and times, as well as the analysis periods evaluated.

EVENT NAME	EVENT DATES	EVENT TIME(S)	ANALYSIS DATE	ANALYSIS TIMES	BASELINE DATE	BASELINE TIMES
FORMULA 1	May 2-4, 2025	4:00-6:00 PM	5/4/2025	11:00 - 2:00 PM 6:00 - 9:00 PM	4/27/2025	11:00 - 2:00 PM 6:00 - 9:00 PM
MIAMI ULTRA	March 28-30, 2025	4:00-12:00 AM	3/28/2025	2:00 - 5:00 PM 5:00 - 8:00 PM	3/21/2025	2:00 - 5:00 PM 5:00 - 8:00 PM
MIAMI ART WEEK	Dec 6-8, 2024	11:00-6:00 PM	12/6/2024; 12/7/2024	4:00 - 7:00 PM 9:00 - 11:00 AM	12/13/2024 12/14/2024	4:00 - 7:00 PM 9:00 - 11:00 AM
COUNTRY BAY MUSIC FESTIVAL	Nov 9-10, 2024	1:00-11:00 PM	11/9/2024	3:00 - 5:00 PM 10:00 - 12:00 AM	11/2/2024	3:00 - 5:00 PM 10:00 - 12:00 AM
NASCAR CUP SERIES	March 21-23, 2025	3:00-6:30 PM	3/23/2024	1:00 - 3:00 PM 6:00 - 9:00 PM	3/16/2025	1:00 - 3:00 PM 6:00 - 9:00 PM

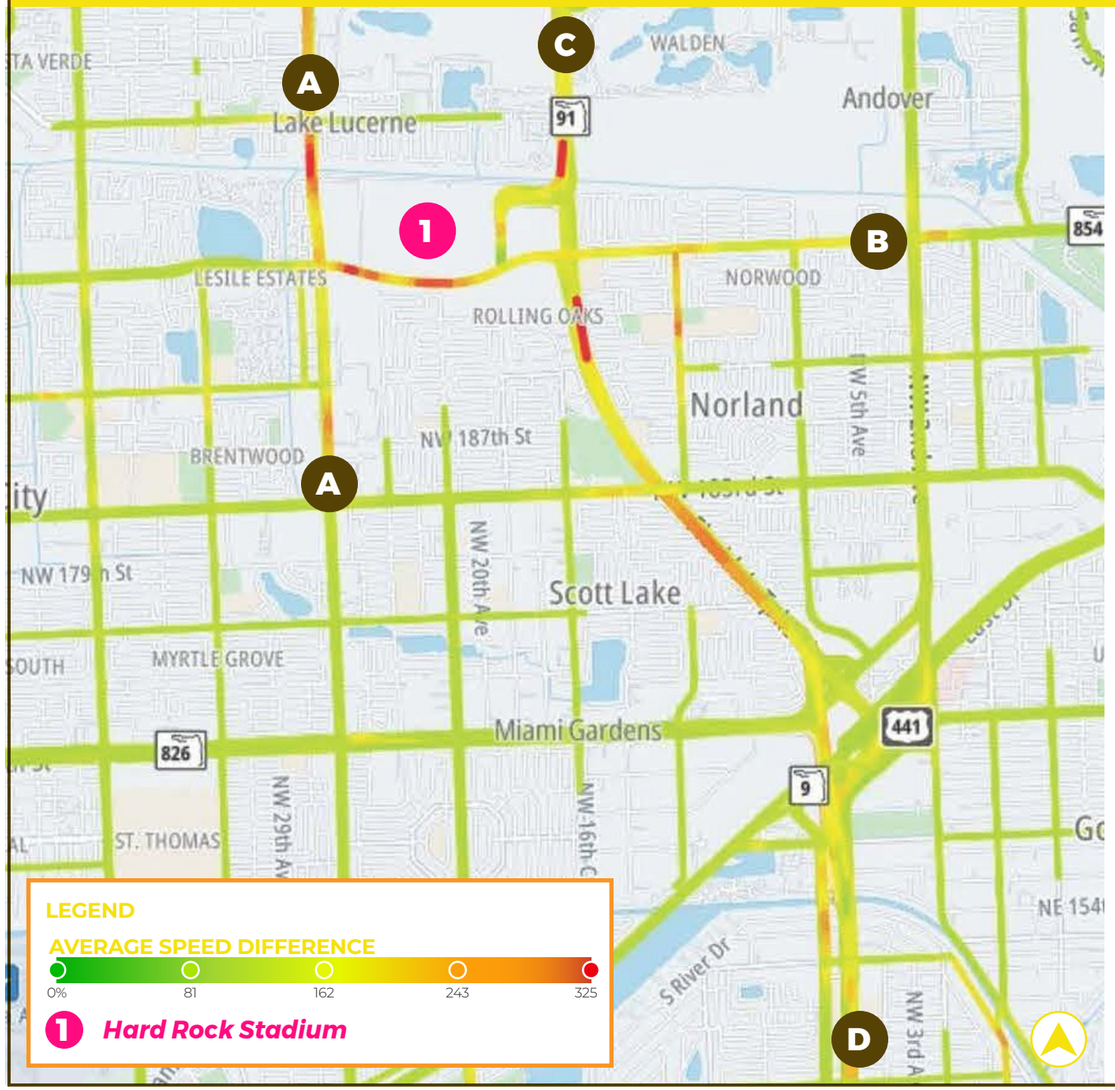
How to Read the Maps

The following pages contain maps depicting the differences in average speed prepared using the methodology described on the previous page. A color gradient symbology is used to identify speed differences from baseline conditions. The gradient ranges from dark green to dark orange, Green represents speeds closer to the average; lime corresponds to speeds further from the average, and yellow to orange corresponds to speeds that are the furthest below the corridor's average.



MIAMI GARDENS: HARD ROCK STADIUM, *FORMULA 1*

PRE EVENT : 11:00 AM – 2:00 PM



In the hours leading to the Formula 1 Grand Prix, the following average speed data was observed in the area surrounding the Hard Rock Stadium:

A *NW 27th Avenue*

- From NW 207th Avenue to NW 199th Street, the average speed difference from typical conditions was up to 325%.
- The NW 27th Avenue section between NW 191st Street and 183rd Street had an average speed difference of about 250%.
- From the Florida Turnpike to NW 207th Street, the average speed difference was about 200%.

B *NW 199th Street*

- The segment between NW 27th Avenue and Turnpike Access Road, has an average speed difference of 325%.
- East of the Turnpike Access Road on NW 199th Street experienced slowdowns with around a 150% average speed difference extending to N Miami Avenue.

C *Florida Turnpike*

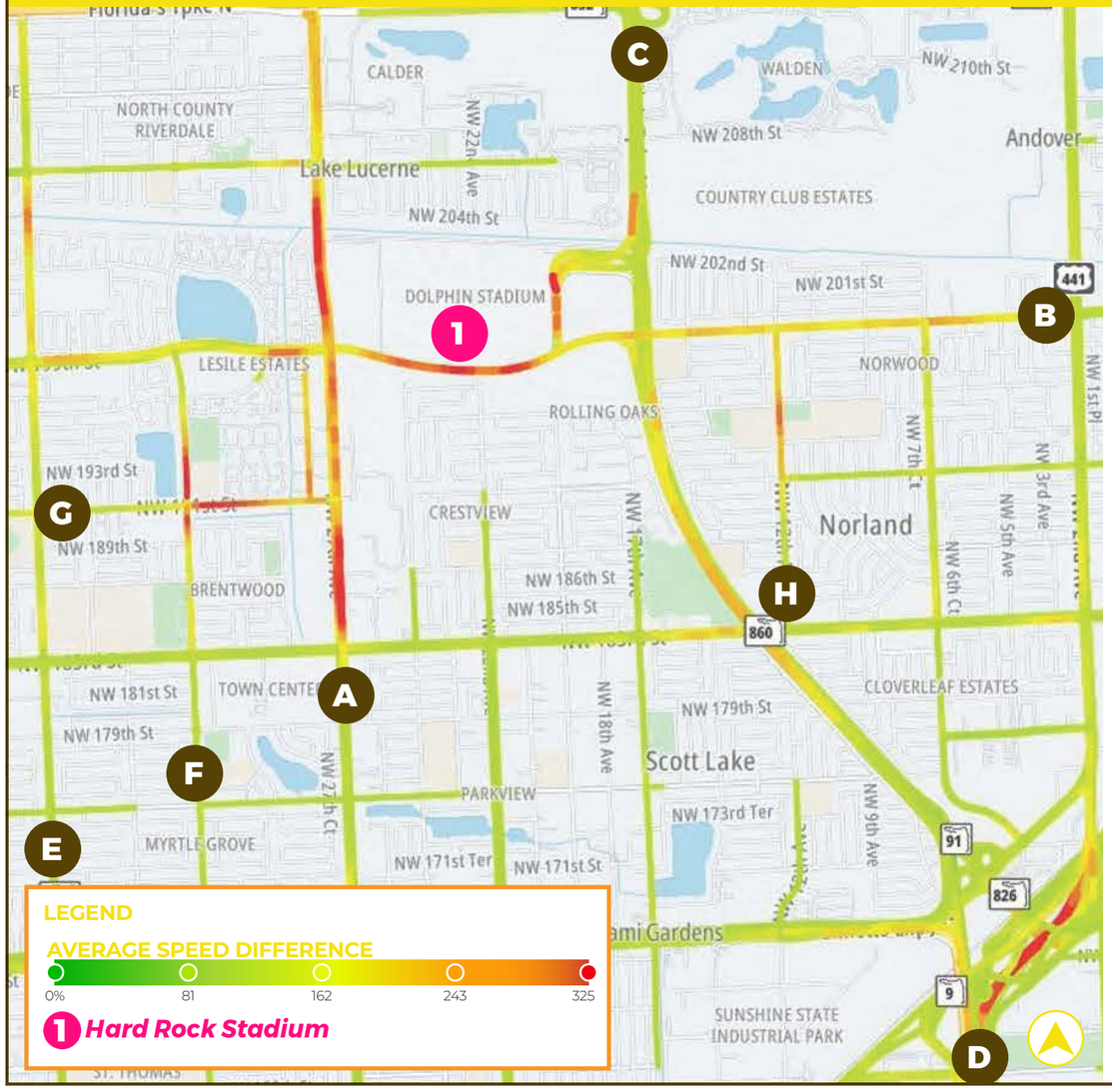
- The Turnpike experienced slowdowns, with a 325% average speed difference on the Southbound lanes leading up to the NW 199th Street Stadium exit, Exit 2X.
- There was also a 325% average speed difference near exit 2 X on the Northbound side of the Turnpike, just south of the Hard Rock Stadium.
- Continuing to the Golden Glades Interchange, average speed differences are between 150% to 250%.

D *I-95*

- Congestion was seen between Golden Glades and Exit 10B towards Opa-locka Boulevard with a 200% average speed difference.

MIAMI GARDENS: HARD ROCK STADIUM, *FORMULA 1*

POST EVENT : 6:00 PM – 9:00 PM



In the hours after the Miami Grand Prix, the following average speed data was observed in the area surrounding the Hard Rock Stadium:

A *NW 27th Avenue*
- The section between NW 191st Street and 183rd Street had an average speed difference of 325%
- From NW 207th Avenue to NW 199th Street, the average speed difference was 300%
- From the Florida Turnpike to NW 207th Street, the average speed difference was about 225%

B *NW 199th Street*
- From NW 27th Avenue to the Turnpike Access Road, most of the street had an average speed difference of 325%.
- East of the Turnpike Access Road to N Miami Avenue experienced a 200% difference in average speed post-event.

C *Florida Turnpike*
- The Turnpike Access Road leading into NW 199th Street had an average speed difference of 325%.
- The Turnpike had a 250% average speed difference on the Southbound stretch leading up to Exit 2X.
- There was also a 200% average speed difference near exit 2 X on the Northbound side of the Turnpike, just south of the Hard Rock Stadium.

D *I-95*
- The stretch of I-95 near the Golden Glades Interchange saw an average speed difference of 325%.

E *NW 37th Avenue*
- From NW 207th Street to NW 199th Street, there was an average speed difference of 150% with some pockets experiencing up to a 250% difference.

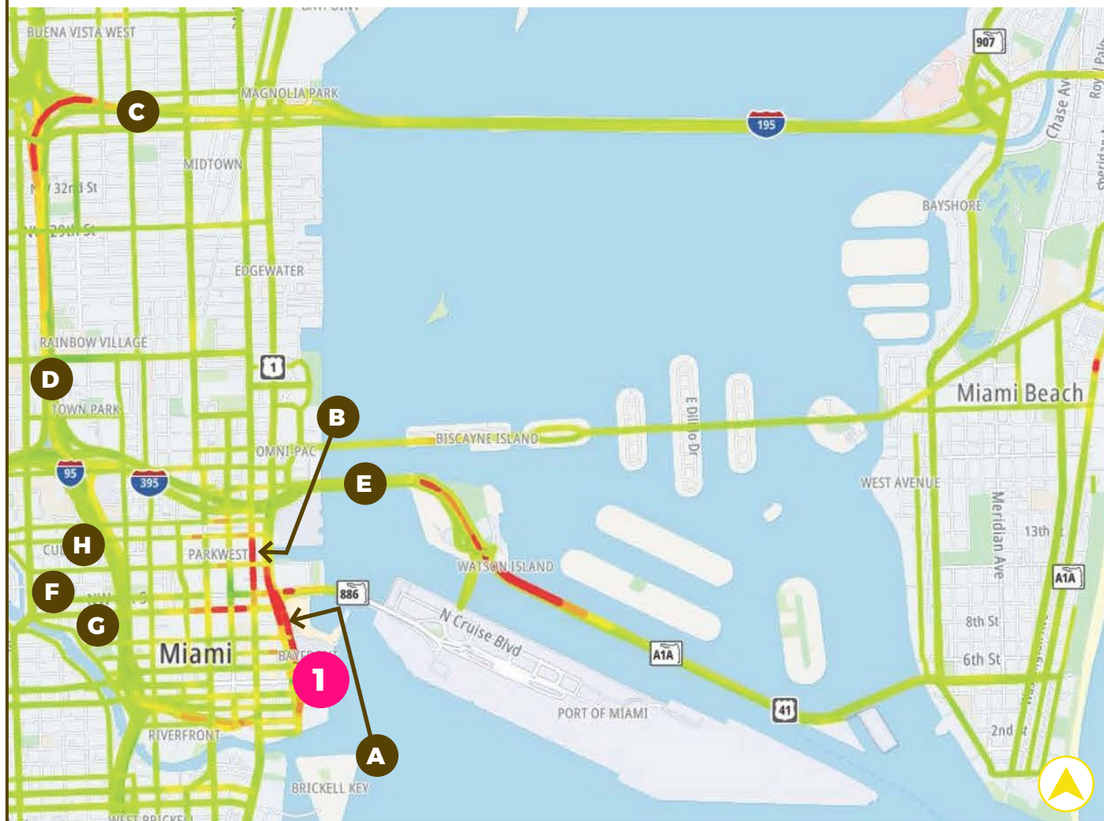
F *NW 32nd Avenue*
- From NW 199th Street to NW 189th Street there was an average speed difference of 325% from typical conditions.

G *NW 191st Street*
- From NW 32nd Avenue to NW 27th Avenue, the average speed difference was 325%.

H *NW 12th Avenue*
- The stretch of NW 12th Avenue from NW 199th Street to NW 191st Street was 250% more than the average speed

DOWNTOWN MIAMI: BAYFRONT PARK, *MIAMI ULTRA*

PRE EVENT : 2:00 PM - 5:00 PM



LEGEND

AVERAGE SPEED DIFFERENCE

0% 81 162 243 325

1 ***Ultra***

In the hours immediately preceding Miami Ultra, the following average speed data was observed in Downtown Miami:

A ***Biscayne Boulevard***

- There was a 325% difference in average speed between NE 8th Street and SE 2nd Street, keeping in mind southbound traffic is shut down from NE 6th Street over the duration of the event.

B ***NE 2nd Avenue***

As the alternate southbound route, NE 2nd Avenue experiences a 325% difference in average speed from baseline conditions between NE 10th Street and NE 6th Street. At NE 5th Street the difference drops to a 200% difference.

C ***I-195***

- Average speeds on the I-195 westbound ramp to southbound I-95 was 325% slower than a typical day.

D ***I-95***

- The ramps leading into Downtown Miami had a difference from baseline speed of 200%.

E ***MacArthur Causeway***

- The stretch of the MacArthur Causeway on Watson Island experienced an average speed difference of 325%.

F ***NE 6th Street***

- The section of NE 6th Street that leads away from the MacArthur Causeway and into downtown Miami had a 325% difference in average speed.

G ***NE 5th Street***

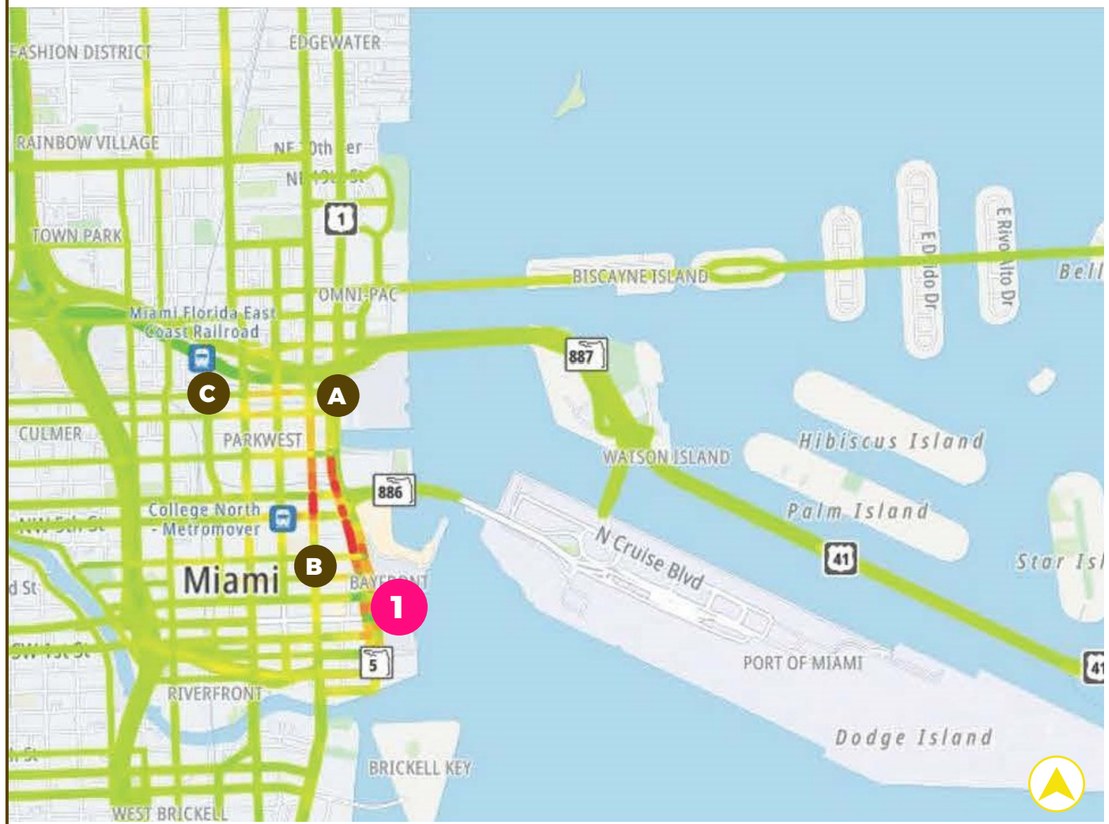
- Ne 5th Street between NE 2nd Avenue and N Miami Avenue had a 325% difference in average speed.

H ***NE 10th Street***

- NE 10th Street between NE 2nd Avenue and NW 1st Avenue had an average speed difference of 100% to 200%.

DOWNTOWN MIAMI: BAYFRONT PARK, *MIAMI ULTRA*

POST EVENT : 5:00 PM – 8:00 PM



LEGEND

AVERAGE SPEED DIFFERENCE

0% 81 162 243 325

1 *Ultra*

In the hours immediately after Miami Ultra, the following average speed data was observed in Downtown Miami:

A ***Biscayne Boulevard***

- There was a 325% difference in average speed between NE 8th Street and NE 3rd Street, dropping to a 250% difference between NE 3rd Street and SE 2nd Street.

B ***NE 2nd Avenue***

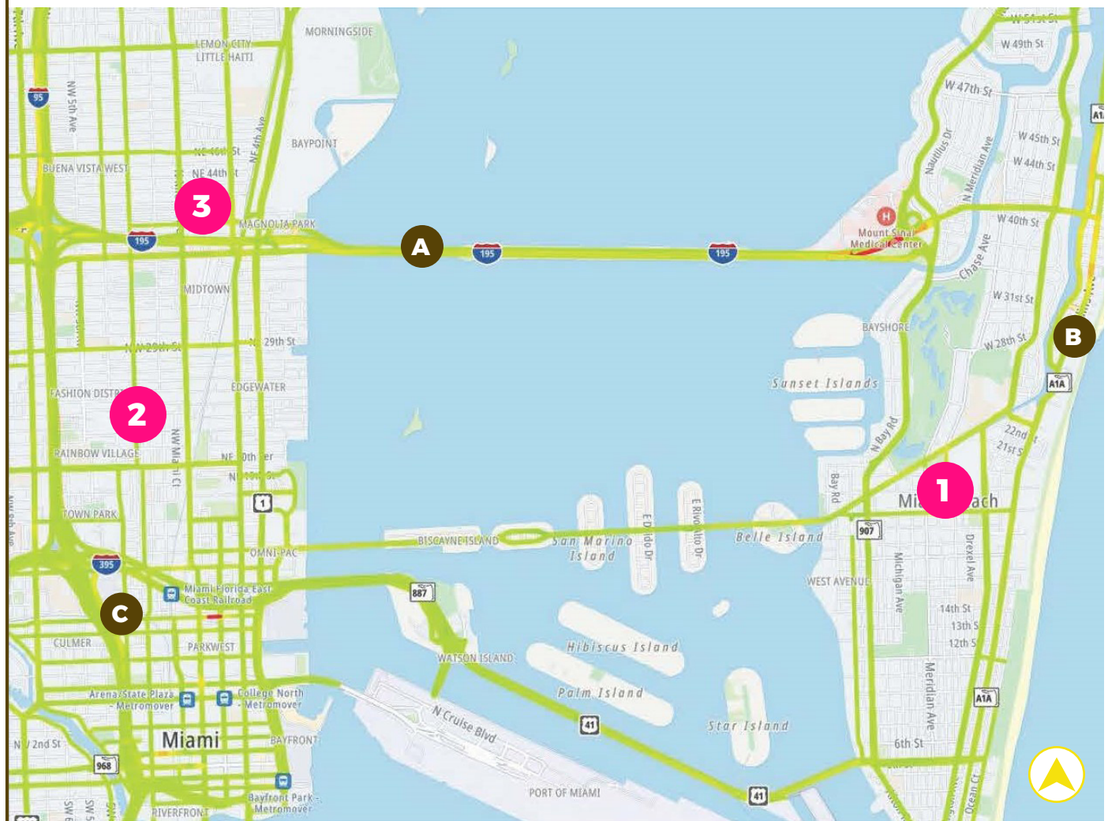
- NE 2nd Avenue had a stretch that had a 300% difference in average speed between NE 8th Street and NE 5th Street.

C ***NE 11th Street***

- Between NE 2nd Avenue and N Miami Avenue there was a 200% difference in average speed.

MIAMI BEACH: MIAMI BEACH CONVENTION CENTER/WYNWOOD, *MIAMI ART WEEK*

FRIDAY : 4:00 PM - 7:00 PM



In the hours leading up to the weekend evening festivities of Miami Art Week, the following average speed data was recorded in the evaluated area:

A ***Julia Tuttle Causeway***

- On the stretch of the Julia Tuttle Causeway near the Mount Sinai Medical Center, the average speed difference was 325%

B ***Collins Avenue***

- On Collins Avenue from W 41st Street to 34th Street there was an average speed difference of 150%

C ***NE 11th Street***

- From NE 1st Avenue to N Miami Avenue the average speed difference was 325%.

LEGEND

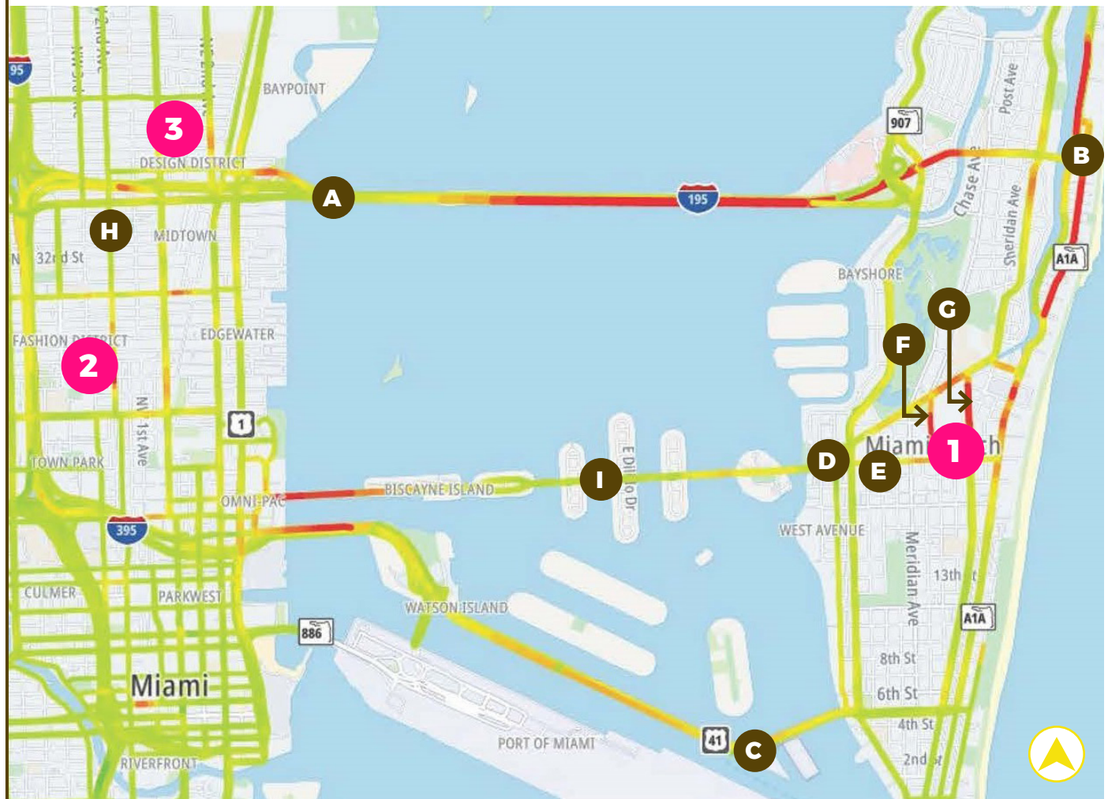
1. ***Miami Beach Convention Center***
2. ***Wynwood***
3. ***Design District***

AVERAGE SPEED DIFFERENCE

0% 81 162 243 325

MIAMI BEACH: MIAMI BEACH CONVENTION CENTER/WYNWOOD, *MIAMI ART WEEK*

SATURDAY : 9:00 AM - 11:00 AM



LEGEND

1. ***Miami Beach Convention Center***
2. ***Wynwood***
3. ***Design District***

AVERAGE SPEED DIFFERENCE

0% 81 162 243 325

During the morning hours on Saturday, prior to peak public access for Miami Art Week, the following average speed data was recorded in the evaluated area:

A *Julia Tuttle Causeway*
- On the Julia Tuttle Causeway from Meridian Avenue to about 2.5 miles to the west, the average speed difference was 325%

B *Collins Avenue*
- On Collins Avenue from W 41st Street to 26th Street there was an average speed difference of 325%
- There is a half mile stretch on Collins Avenue north of W 41st Street that has an average speed difference of 325%
- From 23rd Street to 17th Street, Collins Avenue had an average speed difference of 300%

C *MacArthur Causeway*
- The central portion of the Causeway between Watson Island and Miami Beach saw a 250% difference in average speed
- The section of the MacArthur Causeway from U.S. 1 to Watson Island had a 325% difference in average speed

D *Dade Boulevard*
- Dade Boulevard, from Meridian Avenue to Convention Center Drive, had an average speed difference of 275%

E *17th Street*
- On 17th Street from Meridian Avenue to Convention Center Drive there was a 325% difference in average speed

F *Meridian Avenue*
- From Dade Boulevard to 17th Street, Meridian Avenue experience a 325% difference in average speed

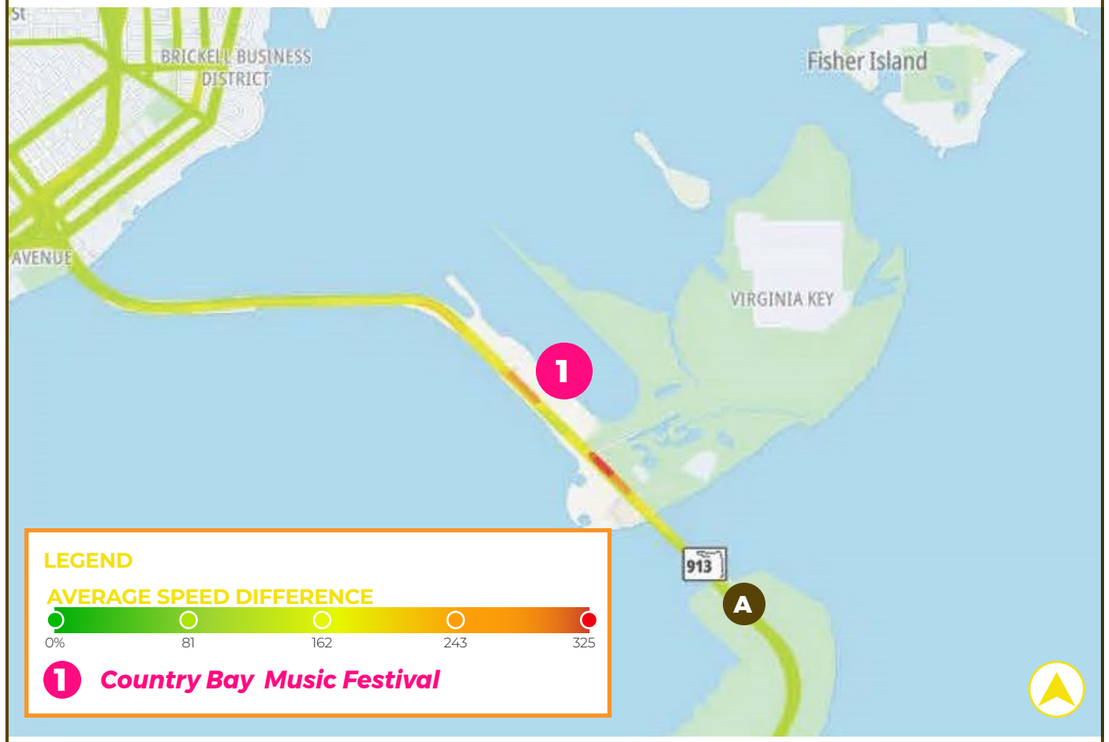
G *Convention Center Drive*
- Convention Center Drive had an average speed difference of 325% between Dade Boulevard and 17th Street

H *NW 2nd Avenue*
- In Wynwood, on NW 2nd Avenue, the stretch from NW 22nd Street to NW 23rd Street had a 325% difference in average speed

I *Venetian Causeway*
- The section of the Venetian Causeway between U.S. 1 and Biscayne Island say a 300% difference in average speed

VIRGINIA KEY:
MARINE STADIUM, *COUNTRY BAY MUSIC FESTIVAL*

PRE EVENT : 3:00 PM - 5:00 PM

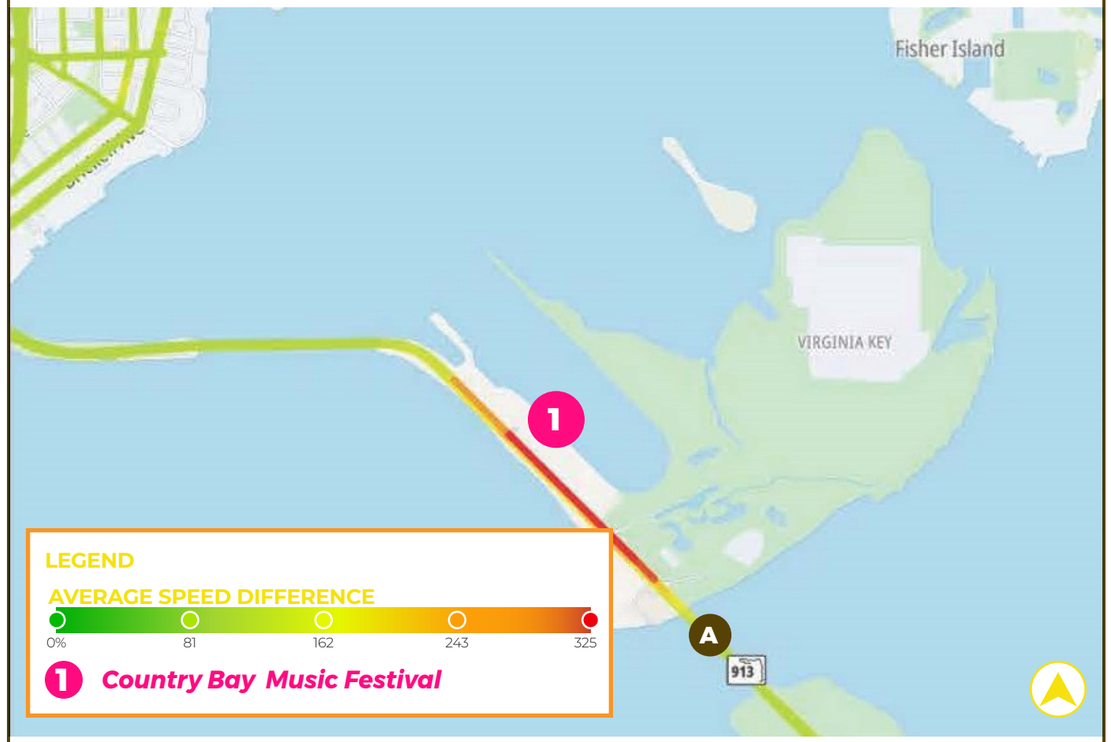


In the hours leading to the Country Bay Music Festival, the following average speed data was observed on Virginia Key:

A *Rickenbacker Causeway*

- The Virginia Key segment of the Rickenbacker Causeway had an average difference of speed between 150% to 250%, with one section near the Miami Seaquarium reaching a 325% difference.

POST EVENT : 10:00 PM – 12:00 AM



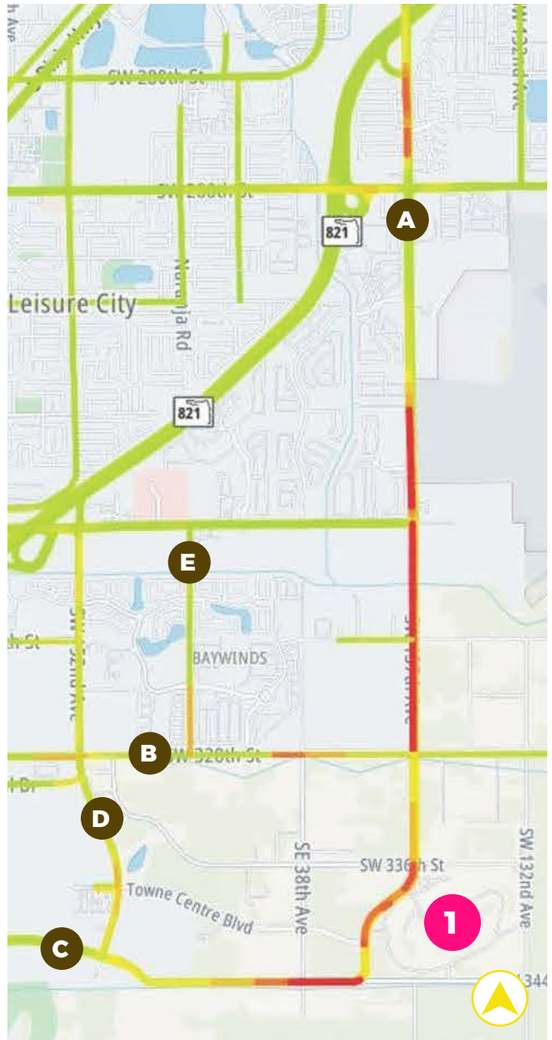
In the hours immediately after the Country Bay Music Festival, the following average speed data was observed on Virginia Key:

A *Rickenbacker Causeway*

- The same stretch that runs over Virginia Key had a 325% difference in average speed.

HOMESTEAD: HOMESTEAD-MIAMI SPEEDWAY, *NASCAR CUP SERIES*

PRE EVENT : 1:00 PM - 3:00 PM



In the hours before the NASCAR Cup Series, the following average speed data was observed in Homestead:

A ***Tallahassee Road***

- NE 16th Street to SW 328th Road had a 325% difference in average speed, dropping down to 200% around SW 336th Street.
- Between the Florida Turnpike on-ramp to just north of SW 284th Street experienced a 300% difference in average speed.
- From SW 336th Street to SW 344th Road, the average difference in speed was 300%..

B ***SW 328th Street***

- A section of SW 328th Road that spans about a quarter of a mile on either side of SE 38th Avenue had a difference in average speed of 275%.

C ***E Palm Dr / SW 344th Street***

- Between Tallahassee Road to just west of SE 38th Avenue, SW 344th Street had a 325% difference in average speed.

D ***SE 28th Avenue***

- Approximately between SE 28th Avenue's intersection with Towne Center Boulevard, the average speed had a difference of 175%.

E ***SW 147th Avenue***

- From SW 328th Street to Mediterranean Boulevard there was a 225% difference in average speed on SW 147th Avenue.

LEGEND

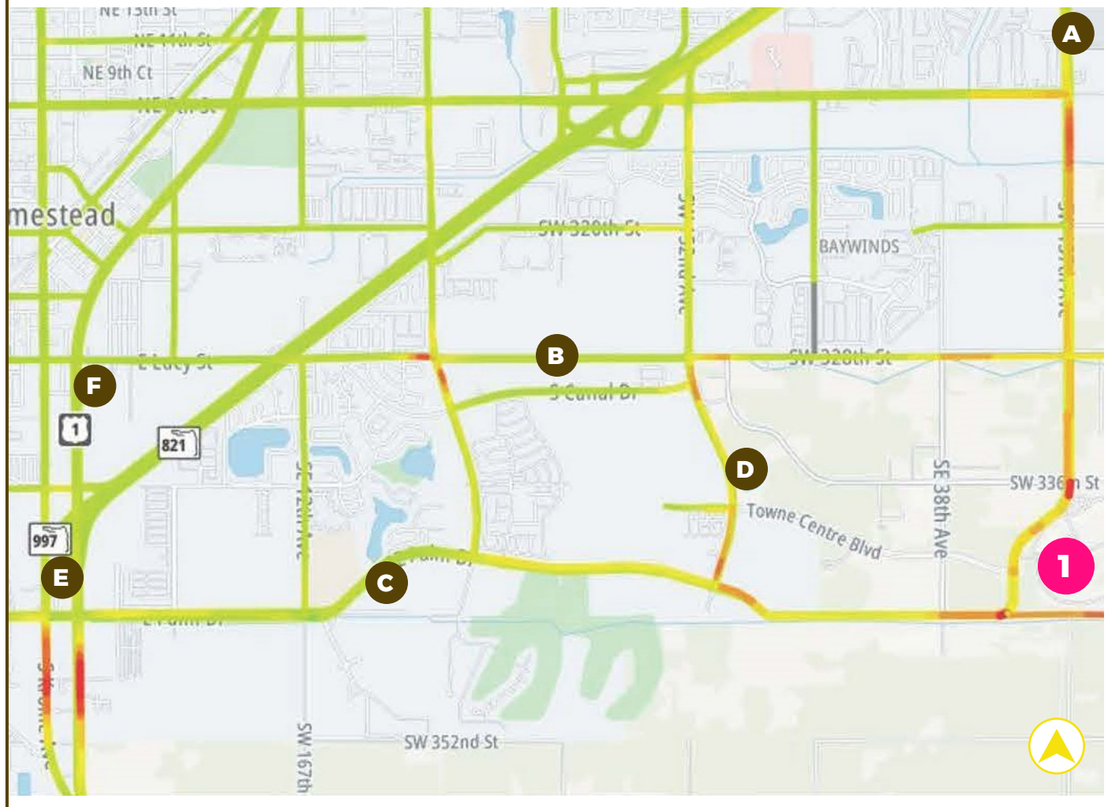
AVERAGE SPEED DIFFERENCE

0% 81 162 243 325

1 ***Homestead Speedway***

HOMESTEAD: HOMESTEAD-MIAMI SPEEDWAY, *NASCAR CUP SERIES*

POST EVENT : 6:00 PM – 9:00 PM



LEGEND

AVERAGE SPEED DIFFERENCE

0% 81 162 243 325

1 ***Homestead Speedway***

In the hours following the checkered flag of the NASCAR Cup Series, the following average speed data was observed in Homestead:

A ***Tallahassee Road***

- Near the SW 336th Street intersection there was a 325% difference in average speed.
- From Campbell Drive to SW 344th Road there was a 250% difference in average speed.

B ***SW 328th Street***

- There are pockets of congestion reaching a 325% difference in average speed at the intersection of SW 328th Road and SE 18th Avenue.
- A section of SW 328th Road just east of the SE 38th Avenue intersection had a difference in average speed of 225%.

C ***E Palm Dr / SW 344th Street***

- From Homestead Stadium Gate 18 entrance to SE 38th Avenue there was a 275% difference in average speed.

D ***SE 28th Avenue***

- From Tallahassee Road to Towne Center Boulevard, the average speed had a difference of 250%.

E ***S Krome Avenue***

- The average speed difference south of SW 344th Street was 300%.

F ***U.S. 1***

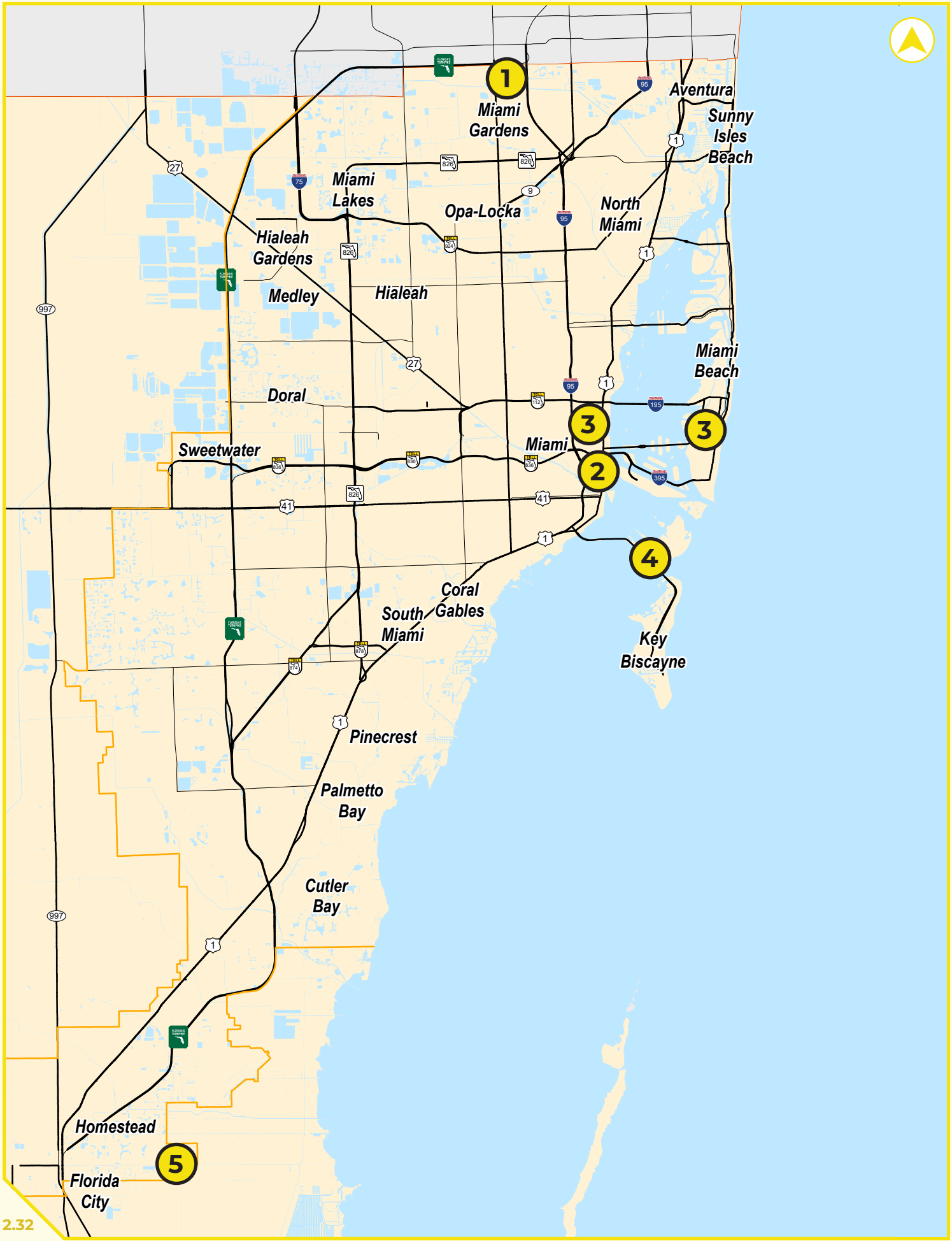
- The average speed difference south of SW 344th Street was 300%.

TRANSIT NEEDS ANALYSIS

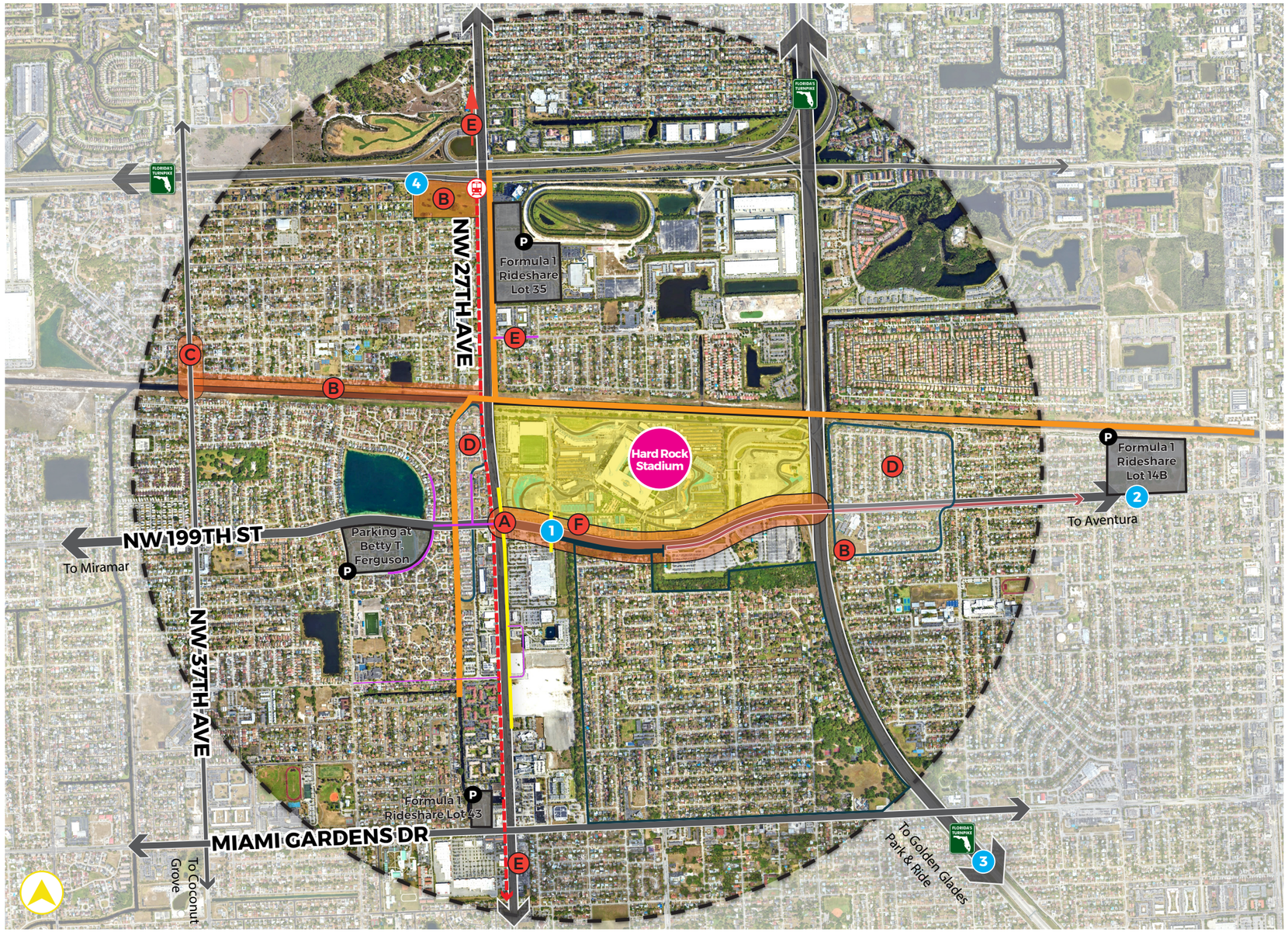
- **Miami Gardens**
  Hard Rock Stadium,
  Formula 1 Grand Prix
- **Downtown Miami**
  Bayfront Park,
  Miami Ultra
- **Miami Beach**
  Miami Beach Convention Center/Wynwood,
  Miami Art Week
- **Virginia Key**
  Marine Stadium,
  Country Bay Music Festival
- **Homestead**
  Homestead-Miami Speedway,
  NASCAR Cup Series

This section identifies the needs and opportunities that have been identified in the station areas. The study team spoke with municipal leadership, law enforcement, and private event organizers to better understand the opportunities and challenges present at each of the evaluation sites.

The concepts presented in the maps on the following pages consist of the findings from these conversations, combined with feedback from the project working group, and the study team's observations.


1
Miami Gardens
Aventura
Sunny Isles Beach
Miami Lakes
Opa-Locka
North Miami
Hialeah Gardens
Medley
Hialeah
Miami Beach
Doral
3
3
Sweetwater
Miami
2
4
Coral Gables
South Miami
Key Biscayne
Pinecrest
Palmetto Bay
Cutler Bay
Homestead
5
Florida City

MIAMI GARDENS: HARD ROCK STADIUM, *FORMULA 1 GRAND PRIX*



LEGEND

- EVENT SPACES
- FUTURE TRANSIT
- FUTURE METRORAIL STATIONS
- PROPOSED TRANSIT
- WATER BARRIER
- PROPOSED PEDESTRIAN CONNECTION
- ACCESSIBILITY CHALLENGES

NEEDS

- **A** *Improved pedestrian flow along NW 27th Street, across NW 199th St*
- **B** *Improved access to parking*
- **C** *Rideshare drivers parking in center turn line*
- **D** *Residential accessibility issues*
- **E** *Traffic flow limited during events; limited access to businesses and residents.*
- **F** *Re-evaluate rideshare staging logistics and standardize across all events at Hard Rock Stadium.*

OPPORTUNITIES

1. *Build pedestrian overpass*
2. *Utilize reversible lanes up to NW 2nd Avenue to extend the reach of the dedicated bus lane. Extend transit connection to Aventura Terminal/ Brightline Station*
3. *Expand park-and-ride bus service from Golden Glades Park-and-Ride*
4. *Improve access to satellite parking facilities*

DOWNTOWN MIAMI: BAYFRONT PARK, *MIAMI ULTRA*



LEGEND

- EVENT SPACES
- METRORAIL AND METROMOVER
- METRORAIL STATIONS
- METROMOVER STOPS
- PROPOSED TRANSIT LANES
- PROPOSED PEDESTRIAN CONNECTION
- WATER-TAXI CONNECTION

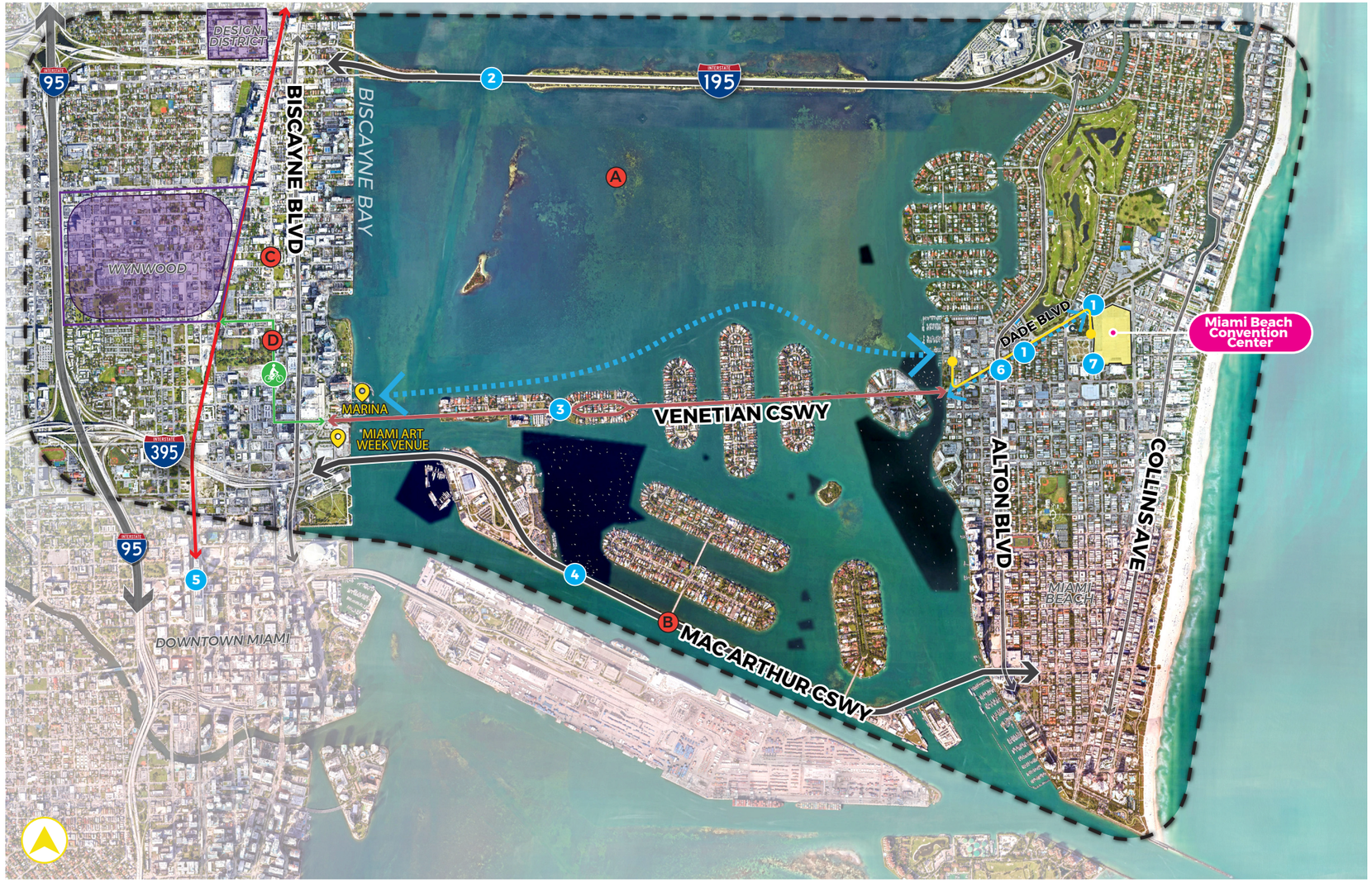
NEEDS

- **A** *More direct access to the parking garages and Government Center Metororail Station on west side of Downtown*
- **B** *Curb Management Challenges*
- **C** *Event runs beyond Metrorail operating hours*
- **D** *Limited access to Miami Beach*

OPPORTUNITIES

1. *Provide shuttles to Government Center and parking garages.*
2. *Revisit curbside management practices throughout district*
3. *Continue partnership to extend transit operating hours (DTPW, SFRTA & Brightline)*
4. *Provide ferry service to Miami Beach*
5. *Surplus of parking availability during off-peak hours*
6. *Extend Baywalk via Port Boulevard underpass to improve pedestrian accessibility*

MIAMI BEACH: MIAMI BEACH CONVENTION CENTER / WYNWOOD, *MIAMI ART WEEK*



LEGEND

- EVENT SPACES
- TRI RAIL / BRIGHTLINE CORRIDOR
- METRORAIL STATIONS
- PROPOSED TRANSIT
- WATER TAXI CONNECTION
- PARK AND RIDE FACILITY
- EVENTS AND ART GALLERIES

NEEDS

- **A** *Limited routes across Biscayne Bay*
- **B** *Buses get stuck in traffic, explore shoulder service on I-395*
- **C** *More east-west connections into Wynwood over FEC ROW*
- **D** *Reduce car trips by improving cycling infrastructure*

OPPORTUNITIES

1. *Expand ferry service between Venetian Marina and Gibb Park Dock; provide shuttle to convention center*
2. *Continue bus on shoulder of I-195*
3. *Limit traffic to bike, local, and shuttles*
4. *Build Baylink*
5. *Extend transit operating hours (DTPW, SFRTA & Brightline)*
6. *Explore boat access on Dade Canal to the Miami Beach Convention Center*
7. *Continue expanding bike share facilities*

VIRGINIA KEY: MARINE STADIUM, *COUNTRY BAY MUSIC FESTIVAL*



LEGEND

- EVENT SPACES
- METRORAIL
- METRORAIL STATIONS
- POTENTIAL DEDICATED SPECIAL EVENT TRANSIT LANE
- WATER TAXI CONNECTION
- P — PARK AND RIDE FACILITY

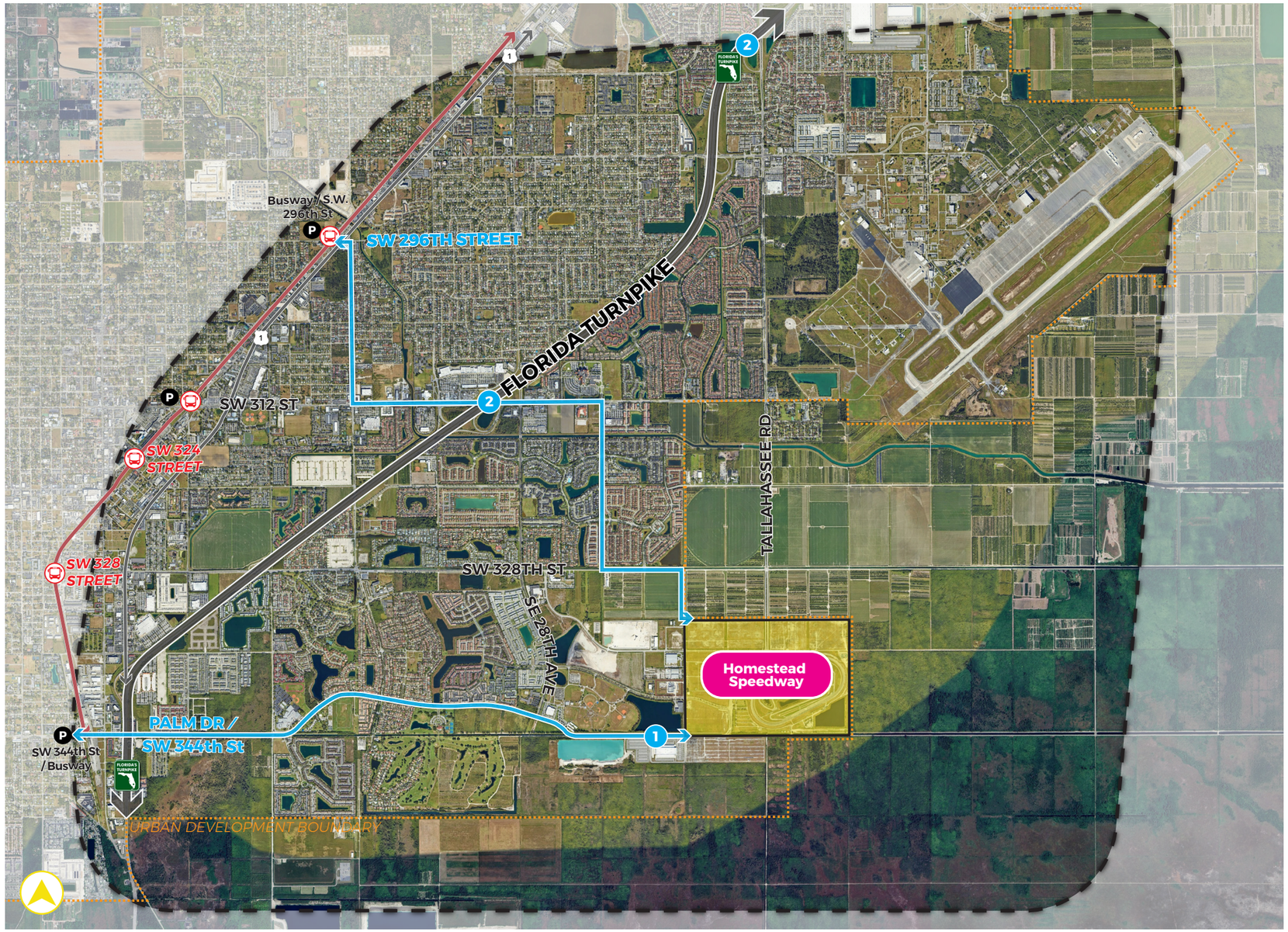
NEEDS

- **A** — *Improve cell phone service near Marine Stadium to facilitate ride share trip bookings.*
- **B** — *Provide more frequent/extended transit service*
- **C** — *One way in/out of Virginia Key and Key Biscayne can hinder emergency response*
- **D** — *No distinct drop-off zones results in riders crossing several lanes of traffic*
- **E** — *No pedestrian facilities on north/east side of the Rickenbacker Causeway*

OPPORTUNITIES

1. *Potential ferry route to transit options in Brickell and Downtown Miami*
2. *Repurpose a travel lane as a dedicated bus lane during special events*
3. *Pursue the Shoreline - Rickenbacker Causeway redesign*
4. *Provide pedestrian facilities on northeast side of Rickenbacker Causeway*

HOMESTEAD: HOMESTEAD-MIAMI SPEEDWAY, *NASCAR CUP SERIES*



LEGEND

- EVENT SPACES
- SOUTH DADE TRANSITWAY CORRIDOR
- BRT STATION
- URBAN DEVELOPMENT BOUNDARY
- PARK AND RIDE FACILITY
- PROPOSED SHUTTLE CONNECTION TO EVENT VENUE

NEEDS

- **A** *Mass congestion post-event around the Speedway*
- **B** *Resident accessibility issues on SW 147th Avenue*
- **C** *Lack of public transit options requiring private vehicle use for events*

OPPORTUNITIES

1. *Proposed shuttle connections to park-and-rides along the SMART corridor*
2. *Use variable messaging signs to inform attendees of alternative routes to the Speedway using different Turnpike exits*

ON-DEMAND SERVICE EVALUATION CRITERIA

- VEHICLE CHARACTERISTICS
- SCALABILITY
- MODES

To assess the suitability of on-demand transit modes for First/Last Mile (FLM) connectivity during major events, two evaluation categories have been established: vehicle characteristics and scalability. These categories capture the key factors for delivering a responsive, safe, and integrated mobility solution in high-demand environments. This framework is intended to guide pre-implementation evaluation based on publicly available information and formerly documented mobility frameworks.

VEHICLE CHARACTERISTICS

This category evaluates the physical and functional qualities of the chosen transit mode, focusing on how effectively it can serve a high-volume, multimodal event environment while ensuring safety, comfort, and accessibility.

Seating Capacity: Modes with adequate seating are prioritized to support rider volume and reduce congestion. While smaller vehicles may offer maneuverability, insufficient capacity can limit impact during surge periods.

ADA Accessibility: The mode must demonstrate the ability to accommodate riders with mobility impairments. Full or partial ADA compliance, including vehicle design and boarding capability, is a critical factor in equitable access.

Safety Features: The presence of on-board safety systems such as cameras, GPS tracking, and driver monitoring is essential for protecting both riders and operators in crowded settings.

Vehicle Range and Fuel Type: For electric or hybrid modes, operational range must support sustained service throughout the event window without requiring frequent recharging or refueling. Sustainable fuel types are noted as an added benefit but not required.

Connectivity Potential: The ability of the mode to work with major transit nodes (e.g., Metrorail, Brightline, Metrobus) is considered. Modes that allow for clearly defined pick-up/drop-off areas, signage coordination, and wayfinding integration are better positioned to support connections.

Public-Private Compatibility: Consideration is also given to the mode's general fit within a public-private partnership (P3) framework. Modes that have been successfully procured or coordinated with public agencies, particularly for events, indicate the ability to best coordinate permitting, branding, and safety protocols.

Infrastructure Compatibility: Where possible, modes should operate using existing roadways and public right-of-way without requiring additional infrastructure (e.g., dedicated lanes, signal modifications, or staging areas). Modes that require minimal infrastructure modification are generally more deployable and cost-effective.

SCALABILITY

Scalability refers to a transit mode's ability to rapidly and reliably expand in response to the unique demands of high-attendance, time-sensitive events. It includes the mode's capacity to serve large passenger volumes, adapt to variable conditions, and operate in close coordination with city agencies and venue stakeholders.

Deployment Capacity: This assesses the total number of vehicles that can be utilized during the event period. High-capacity modes are better positioned to serve attendees and event staff without service gaps or wait-time increases.

Service Adaptability: The ability to adjust in real-time to changes in crowd patterns, street closures, or emergency re-routing is vital. Modes that support centralized dispatching, geofencing, and flexible service boundaries are preferred for their responsiveness.

Operator Availability: Availability of trained drivers or attendants to operate the fleet during extended hours and peak periods is factored into the overall scalability of the mode. This includes the vendor or agency's track record of staffing during large deployments.

Infrastructure Independence: Similar to the vehicle characteristics category, scalability considers how easily the mode can expand without requiring major setup or permitting. Modes that can stage and queue within urban areas are favored.

Coordination Feasibility: The extent to which the mode can be incorporated into a Maintenance of Traffic (MOT) plan and broader inter-agency coordination is a key factor. Modes that have historically worked with municipal permitting, curbside operations, or signal control are considered more viable for deployment.

Access Equity at Scale: As the service expands, it must maintain accessibility for all user groups, including individuals from low-income communities and those with mobility challenges.

MODES

Each of the evaluation sites presents distinct transportation challenges and opportunities. To determine the most context-appropriate solutions, multiple transportation modes will be assessed for each venue. In the next chapter, an evaluation prioritizes how effectively each mode addresses the specific operational and access-related needs of its corresponding site.

The table below outlines the modes under consideration, including both land and water-based options with varying degrees of usable ranges. A multi-modal approach will be applied at each site to ensure that transportation demands are appropriately addressed. This analysis supports data-driven recommendations tailored to the unique conditions of each location and will also consider the broader mobility goals for the areas surrounding the event venues.

Modes
Walk
Bike
Micromobility (E-scooters, etc)
On-Demand Micro Transit
Van
Microbus
Bus
Barge / Ferry
Connected and Automated Vehicles (CAVs)

NEXT STEPS

The findings from this needs assessment and opportunity analysis will serve as the foundation for the implementation roadmap in the next chapter. In collaboration with the Project Working Group, an implementation strategy will be developed consisting of short, medium, and long-term actions. This roadmap will serve as a guide for applying mobility solutions within each of the evaluation sites, consisting of service characteristics, routes, schedules, costs, and potential funding sources. Using the needs identified in the preceding sections, Chapter 3 will also explore local and national best practices to minimize disruptions generated by special events and reduce congestion.

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PROJECT WORKING GROUP 2
JUNE 17, 2025

PARTICIPANTS

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7. Caballero, Jorge (DTPW)
8. Mayra Diaz, (GMX)
9. Scroggin, Alexandra R. (TPO)
10. Christopher Miranda, (Key Biscayne)
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12. Higer, Merrell, (Miami Dolphins)
13. Ramos, Jose A. (Miami-Dade Aviation)
14. Ryabov, Mikhail, (Miami Beach)
15. Gonzalez, Joel, (DTPW)
16. Jeremy Calleros Gauger, (Key Biscayne)
17. Fliss, Eric, (Dennis C. Moss Cultural Arts Center)
18. St. Preux, Schneider (DTPW)

Meeting Summary :

The second meeting was held on June 17, 2025, and focused on two topics: First, feedback received to date was discussed with PWG members. Second, the study team engaged the PWG members to identify needs for the five evaluated sites. The meeting was conducted virtually.

The study team obtained feedback through a combination of conversations with stakeholders, and responses to a questionnaire that was distributed to PWG members. The input obtained from this first topic was integrated into the second.

The study team presented the synthesized questionnaire responses and documented the following challenges to special event transportation:

Limited transit options: Few public transportation connections, a lack of Tri-Rail shuttles, infrequent train service, and no dedicated bus lanes.

Traffic congestion: Road closures around event venues hinder access, creating problems for businesses and residents.

Poor infrastructure: Missing sidewalks, bike lanes, and parking facilities contribute to accessibility issues.

Communication & coordination challenges: No centralized contact for inter-agency coordination; conflicting messaging from different jurisdictions.

Funding limitations: Insufficient financial support for transit improvements, equipment, and event-related infrastructure.

Parking: Insufficient parking supply near major venues and limited or unclear off-site options.

Potential solutions to address the challenges were also identified in the questionnaire responses including:

Improve transit access: Dedicated bus lanes, enhanced Tri-Rail connections, and shuttle services from transit hubs.

Enhance infrastructure: More protected bike lanes, designated drop-off points, expanded pedestrian walkways, and wayfinding signage.

Boost coordination: Centralized event planning system, clearer communication between agencies, and better public engagement efforts.

Optimize traffic management: Geo-fencing strategies, transit priority treatments, and inflow/outflow plans for large events.

Increase marketing efforts: Stronger promotion of public transit options, including partnerships with event organizers.

Technology: Centralized document portals, geo-fencing, and leveraged ITS equipment.

Strategic partnerships: Partner with micro-mobility and transit providers, local parking venues, and new inter-coordination agreements

In the second half of the meeting, the study team explored opportunities to improve access to the special event sites for both attendees and community members. Discussions focused on challenges facing the communities surrounding the venues. These include limited access to local streets due to road closures, transit limitations, waterborne passenger service constraints. Several themes arose during the discussion, including the need for stronger multimodal coordination, better promotion of transit options, enhanced east–west mobility, and consistent communication across agencies.

PWG members highlighted success stories, such as Art Week's bike share expansion and water taxi services, which illustrated the potential for well-planned multimodal services to provide additional mobility solutions during high-demand travel periods.

Other recommendations emphasized extended transit service hours, improved interagency coordination, waterside mobility enhancements, and targeted marketing to improve event accessibility and community outcomes.

CHAPTER 3: RECOMMENDATION AND IMPLEMENTATION ROADMAP

INTRODUCTION:

Miami-Dade County regularly hosts some of the world's largest special events. These events attract hundreds of thousands of attendees, generating significant economic impact, but they also pose major mobility challenges for Miami-Dade County residents. Miami's Congestion and limited connections between special event venues and existing transit services increase reliance on personal vehicles, straining the county's transportation network.

This chapter examines mobility solutions for specific events at five key venues:

NO	VENUE	EVENT
1	Hard Rock Stadium	Formula 1 Grand Prix
2	Bayfront Park	Ultra Music Festival
3	Miami Beach Convention Center	Art Basel
	Wynwood / Downtown Miami	Miami Art Week
4	Marine Stadium	Country Bay Music Festival
5	Homestead Speedway	NASCAR Cup Series

This chapter examines the feasibility and operational strategies for expanding multimodal first/last mile (FLM) services to improve access and mobility during major special events at five key venues in Miami-Dade County: Hard Rock Stadium, Bayfront Park, Miami Beach Convention Center/Wynwood, Virginia Key Marine Stadium, and Homestead-Miami Speedway.

Building on prior analyses of site-specific needs and opportunities, this chapter presents both local and national best practices for special event management, offers tailored recommendations for individual sites, and evaluates potential operating scenarios through a detailed ridership and cost exercise. In addition to venue-specific strategies, the chapter also provides countywide recommendations for Miami-Dade County as a whole.

The goal of this analysis is to reduce event-related roadway congestion, decrease reliance on private vehicles, and enhance accessibility for both residents and visitors. The chapter provides a detailed approach to special event mobility, outlining strategies that support a more connected, efficient, and accessible transportation network during high-attendance events. By aligning with identified best practices and existing transit infrastructure, this study aims to provide a clear pathway for enhancing event mobility in Miami-Dade County

This chapter proposes approaches to:

- Improve coordination and leverage existing infrastructure to maximize connectivity and accessibility.
- Identify short-, medium-, and long-term recommendations for implementing FLM services and infrastructure.
- Develop a roadmap to implementation through detailed service, cost, and ridership characteristics.

BEST PRACTICES IN SPECIAL EVENT MANAGEMENT

- **Local Strategies**
- **National Models**

Across the United States, and within Miami-Dade County, a range of best practices have been established for managing congestion associated with large special events. Notably, Miami-Dade County has already implemented multiple measures aimed at enhancing the attendee experience and promoting greater transit usage. This section highlights the strategies currently in place and examples of successful implementation.



LOCAL STRATEGIES

Miami-Dade County has already implemented a number of strategies that provide useful guidance for special event mobility planning. These practices focus on managing traffic flow, enhancing transit use, and improving the attendee experience:

- Designated pick-up/drop-off zones for rideshares, shuttles, micro transit near within walkshed of venues (geo-fencing)
- Dynamic messaging systems, congestion updates (VMS signs during special events)
- Dynamic/reversible lanes (NW 199th Street at Hard Rock Stadium to NW 2nd Avenue)
- Central event agency/coordination
- Curb space monitoring
- Neighborhood access, police presence to ensure resident access from event traffic
- Public information pushes, better spread of info on closures, shuttle options
- Existing transit services can and should be used to the extent possible. Extending operating hours and/or increasing service frequency to meet the demand



NATIONAL MODELS

Beyond Miami-Dade, there are national best practices to alleviate congestion during large special events. These practices highlight the importance of cross-agency coordination, extended transit services, and direct incentives to encourage transit ridership:

- **Create a Special Event Coordination Team (New York City)**
  Example: NYC Office of Citywide Event Coordination and Management (CECM)

CECM establishes a framework for a dedicated special event coordination team that unites stakeholders to oversee every aspect of special event planning and execution. By fostering close collaboration among public agencies, private partners, and on-the-ground staff, CECM ensures that large-scale events are managed seamlessly, efficiently, and with a focus on delivering exceptional attendee experiences.

- **Make signal timing adjustments that account for pre/post event traffic**
  Example: Indy 500 (IDOT)
- **Enhanced transit service during major events (i.e. extended service hours and frequency)**
  Example: Miami Ultra; Macy's Day Parade NYC
- **Partner with transit agencies and ride share services to provide discounted ride fees**
  Example: Lollapalooza Chicago; NBA All-Star Games (IndyGO)
- **Establish areas of responsibilities for inter-agency agreements (advance planning, day-of event responsibilities, resource sharing, funding details)**
  Example: Boston Marathon
- **Increase information awareness**
  Example: Bartable

BARTable increases information awareness by serving as a central platform that provides real-time updates, trip planning tools, and comprehensive event information for Bay Area Rapid Transit (BART) riders. By aggregating transit schedules, service alerts, local event details, and destination guides, BARTable empowers users to make informed travel.

- **Creating a Playbook**

SetGo created by LA Metro is a Special Events Playbook designed to help transit agencies identify service strategies for major sports and entertainment events. This playbook provides comprehensive guidance on planning, coordinating, and operating transit services during large-scale events, drawing on best practices and lessons learned to continue evolving and refining approaches for future events.

- **Purpose & Need**
  Mission alignment, advocacy and coordination inside and outside the agency.
- **Service Plan**
  Demand forecasting, supplemental service, first/last mile strategies, and speed and reliability.
- **Safety & Emergency Management**
  Crowd management, security and Emergency Operations Center (EOC) planning.
- **Customer Experience**
  Accessibility, signage and wayfinding, integrated ticketing, ambassadors and "surprise and delight" activations.
- **Agency-Wide Success Strategies**
  Budgeting, workforce readiness, training, technology, contingency planning and after-action processes

INFRASTRUCTURE NEEDS

Supporting multimodal first/last mile services for large-scale events requires coordinated investments in infrastructure that address wayfinding, passenger experience, safety, and system reliability. The following are the needs identified that are shared across all the individual event venues:

EMERGENCY & CONTINGENCY PLANNING



- Develop clear, predefined protocols to address common disruptions such as bus or ferry breakdowns, sudden crowd surges, or adverse weather events. Plans should identify response steps, available backup resources, and communication responsibilities
- Maintain reserve capacity in the form of back-up vehicles and on-call drivers to ensure continuity of service if part of the fleet becomes unavailable
- Assign route supervisors to strategic locations to resolve issues quickly.



WAYFINDING SIGNAGE



- Multilingual signage, digital displays, and QR codes for live information
- Clear wayfinding to transfers (DTPW transit mode, regional trains and shuttles)
- Clear pedestrian walkways to minimize crowding
- Public Service Aides to support traffic flow

PASSENGER AMENITIES



- Upgraded ADA-compliant infrastructure
- Real-time updates on wait times and bus counts
- Amenities available on-site (bathrooms, hydration stations, customer service desk)
- Queue management including retractable stanchions, ADA boarding space, and shading as needed



EXPANDED TRANSIT HOURS



- Expand DTPW and private transit operating hours as required to align with event duration
- Increase frequency to reduce headways and provide sufficient capacity to handle short bursts of high demand as crowds leave venues
- Coordinate with event organizers and private operators on operating hours

INTEGRATION WITH EXISTING TRANSIT STOPS



- Leverage existing DTPW infrastructure as primary transfer points to shuttle or ferry connections, capitalizing on existing capacity and accessibility features
- Deploy event shuttles and special services directly from bus bays, park-and-ride lots, and transfer centers



SAFETY & SECURITY



- Enlist public service aides at transfer points to manage security and crowd flow and provide rapid responses in case of incidents
- Establish joint planning and real-time communication between DTPW, local law enforcement, fire/rescue, and private event security teams

VEHICLE INFRASTRUCTURE



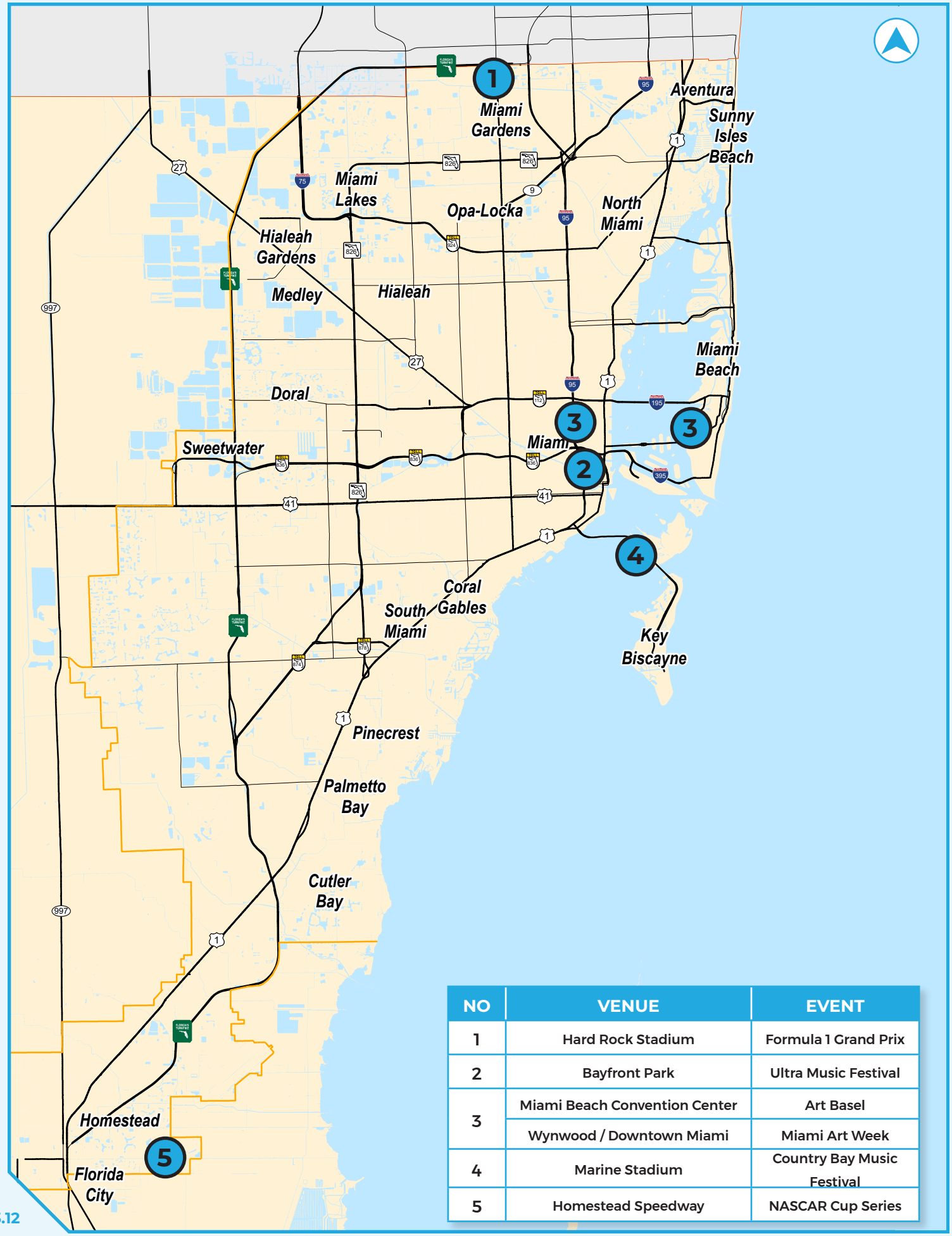
- Designate bus bays specific to the special event.
- Prepare route plans with special event organizer input to avoid planned road closures
- Implement temporary bus-only lanes along designated route to improve operational efficiency.

INDIVIDUAL STATION RECOMMENDATIONS

- **Miami Gardens**
  Hard Rock Stadium,
  Formula 1 Grand Prix
- **Downtown Miami**
  Bayfront Park,
  Miami Ultra
- **Miami Beach**
  Miami Beach Convention Center/Wynwood,
  Miami Art Week
- **Virginia Key**
  Marine Stadium,
  Country Bay Music Festival
- **Homestead**
  Homestead-Miami Speedway,
  NASCAR Cup Series

Tailored recommendations were developed for each of the five primary event venues. These recommendations draw on input received from the project working group and interviews with local stakeholders combined with traffic congestion analyses and informed assumptions about operational costs, service levels, and ridership scenarios. Drawing on input from the project working group, analyses of traffic congestion, and informed assumptions about operational costs, service levels, and ridership, tailored recommendations were developed for each of the five primary event venues.

For every site, a key short-term recommendation was identified, supplemented by additional recommendations categorized into short-, medium-, and long-term actionable time frames. A key recommendation was developed for every site and was supplemented by additional recommendations categorized into short, medium, and long-term actionable time frames. Collectively, these strategies are designed to reduce reliance on private vehicles during major events and therefore alleviate event-day congestion across Miami-Dade County.



NO	VENUE	EVENT
1	Hard Rock Stadium	Formula 1 Grand Prix
2	Bayfront Park	Ultra Music Festival
3	Miami Beach Convention Center	Art Basel
	Wynwood / Downtown Miami	Miami Art Week
4	Marine Stadium	Country Bay Music Festival
5	Homestead Speedway	NASCAR Cup Series

RECOMMENDATIONS

KEY RECOMMENDATION

A *High-frequency Bus Service from MLK Jr Metrorail Station*

SHORT-TERM [12 MONTHS]

Expand Park & Ride Services

1 *Golden Glades Park-and-Ride (South Shuttle)*

2 *Hard Rock Casino (Private Lot 70) Park-and-Ride (North Shuttle)*

3 *Brightline Aventura Station (East Shuttle)*

4 *Improve access to satellite parking areas*

- *Designate and clearly mark ride-share pick-up and drop-off zones*
- *Coordinate with ride-share companies to manage peak demand through optimized routing and geofencing*

MEDIUM-TERM [1-5 YEARS]

5 *Restore reversible lane signal heads to maximize the use of reversible lane to NW 2nd Avenue*

6 *Construct pedestrian overpass at NW 199th Street & NW 27th Ave*

7 *Build a north-south multimodal path on the east side of NW 27th Avenue to link the stadium to locations along the corridor. Alignment to be determined.*

- *Explore feasibility of bus on shoulder on Turnpike to park-and-ride facilities*

LONG-TERM [5+ YEARS]

8 *Build the North Corridor to bring high-speed, high-capacity transit directly to Hard Rock Stadium's doorstep.*

EVENT SPACES

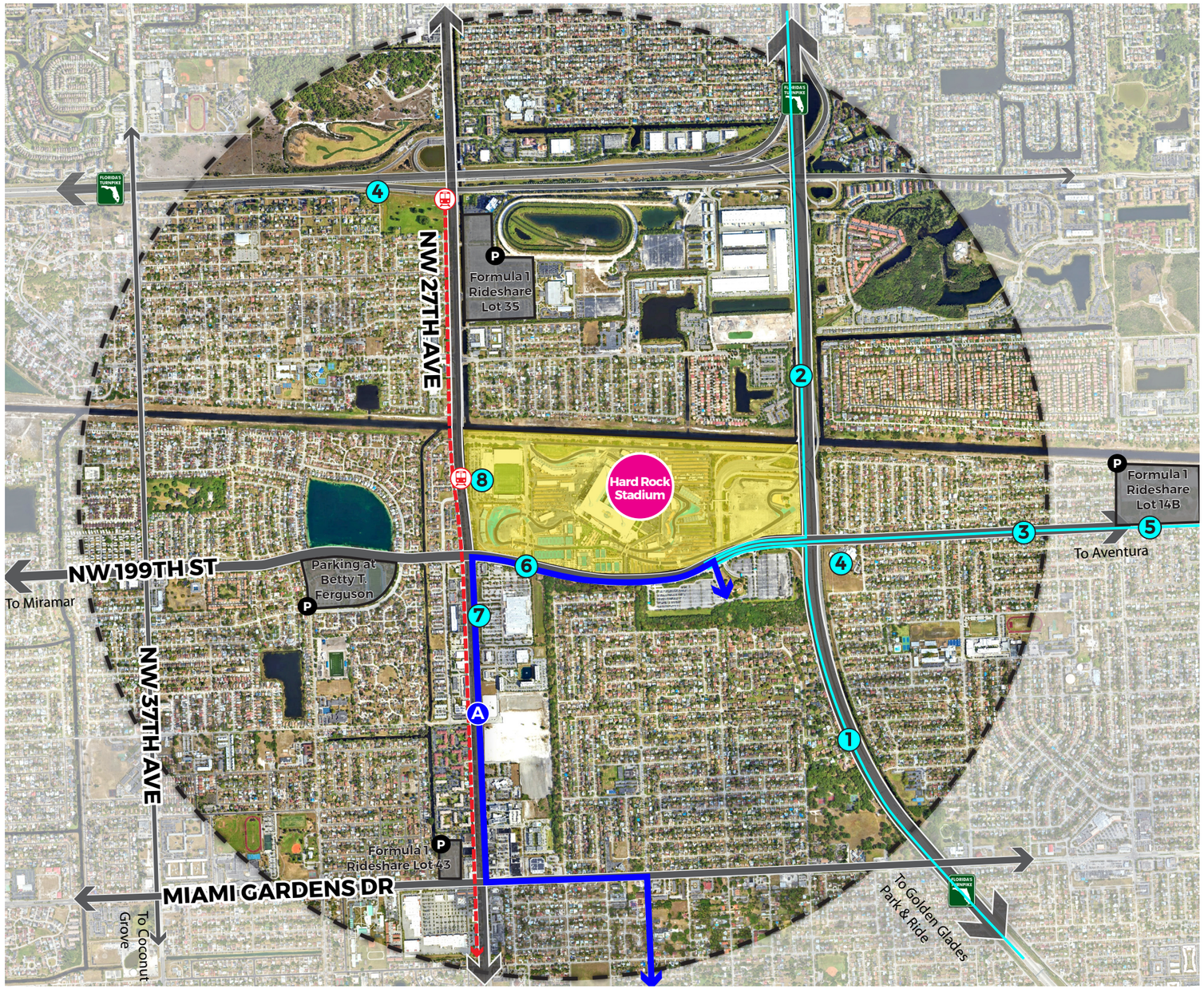
FUTURE NORTH CORRIDOR ALIGNMENT

FUTURE METRORAIL STATIONS

PARK AND PARK AND RIDE FACILITY

Note : All Items marked with # A are mapped here on the graphic.

MIAMI GARDENS: HARD ROCK STADIUM, *FORMULA 1 GRAND PRIX*



RECOMMENDATIONS

KEY RECOMMENDATION

A *Run a ferry service between Downtown Miami and Miami Beach.*

SHORT-TERM [12 MONTHS]

Extend Metrorail and Metromover Operating Hours to provide transit service post-event.

1 *Make Flagler Street a pedestrian-only corridor during special events to accommodate heavy pre/post-event pedestrian traffic.*

- *Extend transit operating hours and services for Metrorail, Metromover, Tri-Rail, and event shuttles*

MEDIUM-TERM [1-5 YEARS]

- *Coordinate with DTPW to develop a parking and wayfinding strategy that encourages event attendees to use Metrorail park-and-ride facilities to access Downtown.*
- *Develop a traffic management plan for Downtown Miami that expands signage, and increases parking garage information, including garage parking counters.*

LONG-TERM [5+ YEARS]

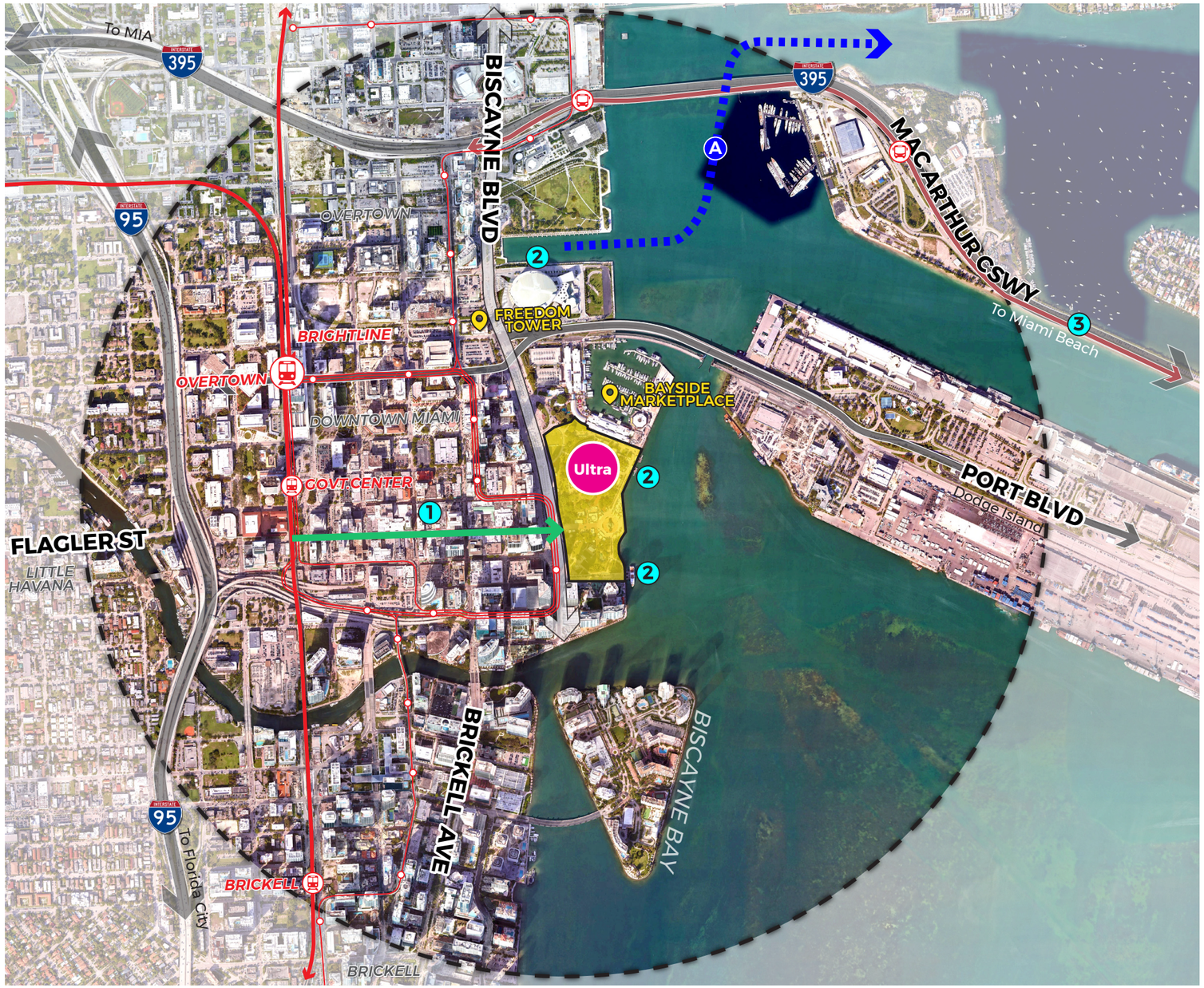
2 *Develop and upgrade public docks to increase passenger amenities and capacity*

3 *Beach Corridor to link Downtown Miami and Miami Beach via a high-speed, high-capacity transit service*

- EVENT SPACE
- BEACH CORRIDOR
- METRORAIL AND METROMOVER
- BRT STATION
- METRORAIL STATIONS
- METROMOVER STOPS
- **P** PARK AND RIDE FACILITY

Note : All Items marked with (#) (A) are mapped here on the graphic.

DOWNTOWN MIAMI: BAYFRONT PARK, *MIAMI ULTRA*



RECOMMENDATIONS

KEY RECOMMENDATION

A *Run a ferry service between Downtown Miami and Miami Beach.*

SHORT-TERM [12 MONTHS]

Extend Metromover and Metrorail Operating hours to provide transit service post-event.

- *Extend transit operating hours and services. Encourage event organizers to coordinate event shuttles to transit hubs*
- *Resolve the bottleneck of buses merging from inside shoulder bus lane to Biscayne Boulevard right-hand exit pinch points to improve bus-on-shoulder service.*
- *Develop plan to allow buses to merge from inside shoulder to exit at Biscayne Boulevard*
- *Increase the size of bicycle sharing stations in neighborhoods that host the major art shows, such as Wynwood and Miami Beach*

MEDIUM-TERM [1-5 YEARS]

1 *Designate "official" bike routes between major art shows (CoM, CoMB, County, Organizers)*

- *Implement Bicycle Lanes identified in the City of Miami Master Plan to provide multiple routes between art shows.*
- *Identify infrastructure upgrades necessary to operate boats on Dade Canal (CoM, CoMB, County)*
- *Conduct a feasibility study to prioritize bikes and transit on the Venetian Causeway*

LONG-TERM [5+ YEARS]

2 *Beach Corridor to link Downtown Miami and Miami Beach via a high-speed, high-capacity transit service*

EVENT SPACES
BEACH CORRIDOR
METRORAIL AND METROMOVER
METRORAIL STATIONS
METROMOVER STOPS
P **PARK AND RIDE FACILITY**
EVENTS AND ART GALLERIES

Note : All Items marked with # A are mapped here on the graphic.

MIAMI BEACH: MIAMI BEACH CONVENTION CENTER / WYNWOOD, *MIAMI ART WEEK*



RECOMMENDATIONS

KEY RECOMMENDATION

A *Install a temporary transit-only lane along Rickenbacker Causeway linking special event attendees to the Vizcaya Metrorail Station*

SHORT-TERM [12 MONTHS]

Implement ferry service connecting Virginia Key to Downtown Miami

1 *Provide special event ferry service connecting Marine Stadium to Chopin Plaza.*

- *Increase service Frequency on Route 26 during special events*
- *Establish safe rideshare pick-up and drop-off zones in Virginia Key*
- *Build more pedestrian crosswalks on Virginia Key. There is one legal pedestrian crossing on the 1.5 mile length of the Key, limiting pedestrian access between Marine Stadium and the Rickenbacker Causeway Trail.*

MEDIUM-TERM [1-5 YEARS]

- *Provide Ferry Service connecting Marine Stadium to Chopin Plaza (Route L7 in Feasibility of Implementing a Waterborne Transportation Network in Miami-Dade County Study, 2025)*
- *Upgrade mobile network coverage on Virginia Key to improve reception near Marine Stadium*

LONG-TERM [5+ YEARS]

2 *Expand Rickenbacker Causeway Trail to fully connect northeast side of Virginia Key and Hobie Island on the north side of the Rickenbacker*

- *Implement the Shoreline Plan (County)*

EVENT SPACES

METRORAIL STATIONS

METRORAIL AND METROMOVER

P **PARK AND RIDE FACILITY**

Note : All Items marked with # A are mapped here on the graphic.

VIRGINIA KEY: MARINE STADIUM, *COUNTRY BAY MUSIC FESTIVAL*



RECOMMENDATIONS

KEY RECOMMENDATION

A *Operate shuttle service linking the Speedway to TransitWay park-and-rides facilities at SW 296th and 344th Streets.*

SHORT-TERM [12 MONTHS]

- *Use variable messaging to inform attendees of alternate access routes to the Speedway*

MEDIUM-TERM [1-5 YEARS]

- *Test feasibility of implementing long-distance Express Bus Services from park-and-ride hubs outside the evaluated area*

EVENT SPACE

SOUTH DADE TRANSITWAY CORRIDOR

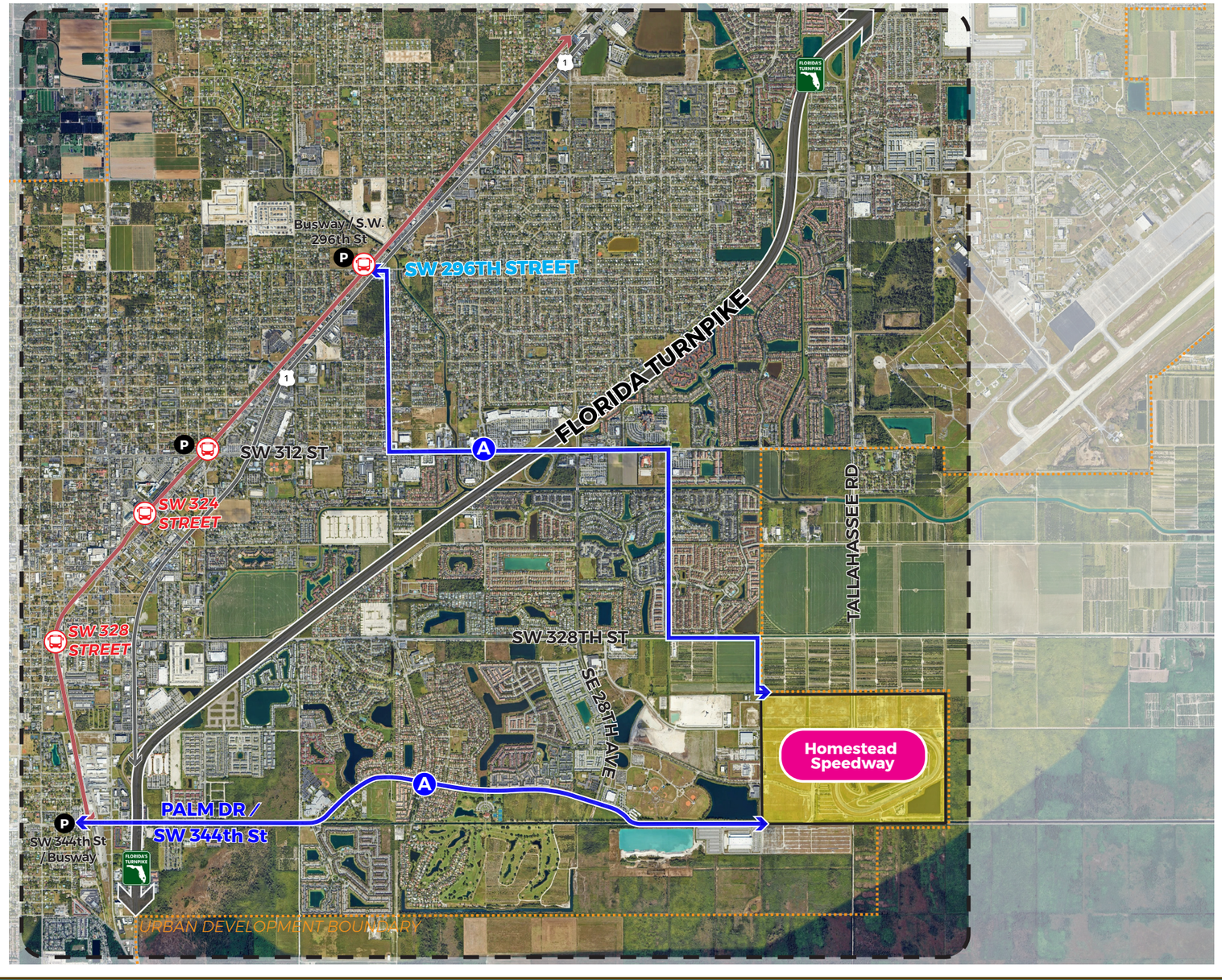
BRT STATION

URBAN DEVELOPMENT BOUNDARY

PARK AND RIDE FACILITY

Note : All Items marked with (#) (A) are mapped here on the graphic.

HOMESTEAD: HOMESTEAD-MIAMI SPEEDWAY, *NASCAR CUP SERIES*



RIDERSHIP AND COST EXERCISE

The ridership and cost exercise was developed through research into event attendance figures, analysis of former TPO studies, and consultations with stakeholders to assess the feasibility of implementing on-demand transportation options. The primary objective of this section is to examine the operational, service, and cost characteristics of proposed first/last mile modes at each event site. Rather than providing forecasts or demand modeling, this section serves as a planning exercise to explore the feasibility and hypothetical costs associated with deploying these service options.

RIDERSHIP AND COST EXERCISE

This is an exercise to understand what the operational needs would look like to transport a certain percentage of special event attendees to each of the evaluated sites. This analysis makes several assumptions that will require a comprehensive service planning analysis in order to be implemented.

METHODOLOGY

The methodology for this study was designed as a planning thought exercise rather than ridership forecasting. The analysis relied on informed assumptions regarding ridership targets, vehicle capacities, cycle times, and costs to estimate the number of transit vehicles that would be required to serve a chosen share of event attendees.

These figures represent a structured planning exercise intended to test the feasibility of first/last mile strategies under different operating conditions. By developing target percentages of total event attendance, the study explored how many vehicles, operators, and infrastructure needs would be required to achieve hypothetical ridership benchmarks.

SERVICE ASSUMPTIONS

- The numbers in this section should be used for general estimating purposes only.
- The objective is to move a share of all attendees during the peak pre-/post-event windows. This simplified approach treats total attendance as a single pool and does not model directionality.
- For the Miami Grand Prix, given its geographic location near the Broward County border points to the north. In 2025, Formula 1 Grand Prix had a total attendance of approximately 275,000. This analysis assumes about 50% Miami-Dade origin or 137,500, and tests moving 10% of that group*.

VEHICLE CAPACITY

- For trips greater than 20 minutes, only seated capacity was assumed, while trips under 20 minutes assumed seated/standing capacity.
- Service assumes the use of a low-floor DTPW 40' bus with a capacity for 50 seated and 70 seated and standing.
- Boat capacity assumes 50 passengers in a midsize water-taxi.
- Assumed Occupancy Load: Calculations assume 100% occupancy
- Operating hours were assumed to align with event start and end times (e.g. 4-6 hours)
- Runs times factor in dwell time for passenger loading and unloading, driver breaks and recovery time
- Operating times assume express service with no intermediate stops and a constant operating speed.

- For each of the five events studied, total attendance figures were sourced from public news articles and divided by the number of event days to determine daily attendance. For this planning exercise, a specific percentage or fixed number of daily attendees was chosen as a hypothetical target. This approach was used to estimate how many transit vehicles would be required to transport that group under realistic event conditions. The selected target is not a forecast, but rather a practical scenario designed to guide operational planning decisions. This target was further broken down to estimate the number of attendees per hour during the determined service window. To calculate the required fleet size, the hourly attendee target was multiplied by the service cycle time (in hours) and divided by the vehicle capacity, using the formula: Fleet Required = (Attendees per Hour × (Cycle Time ÷ 60)) ÷ Capacity
- The estimated number of vehicles taken off the road during these major events was calculated by dividing the targeted daily ridership by the assumed average vehicle occupancy of 2.5 passengers per vehicle.

SPECIAL EVENT / VENUE	2025 TOTAL EVENT ATTENDANCE	ATTENDANCE (PER DAY OF EVENT)	PERCENTAGE OF DAILY ATTENDEES USING THE SERVICE	RIDERSHIP PER HOUR	ESTIMATED FLEET REQUIRED	ESTIMATED VEHICLES REMOVED FROM THE ROAD 2.5(PASSENGERS/ VEHICLE)
F1 – Hard Rock Stadium	137,500*	~46,000	10%(4,600)	1,533	36 Buses	1,840
Ultra – Bayfront Park	160,000	~55,000	3%(1,600)	533	9 Boats	640
Art Week – Miami Beach/Wynwood	80,000 (Art Basel)	16,000 (Art Basel)	15%(2,400)	480	6 Boats	960
Country Bay – Virginia Key	20,000	10,000	25%(2,500)	1,250	9 Buses	1,000
NASCAR – Homestead Speedway	30,000	10,000	25%(2,500)	830	8 Buses	1,000

*Per the bullet above, while total event attendance was 275,000, the 50% catchment area of attendees originating in Miami-Dade County was used to calculate the target amount of daily ridership.

OPERATING CHARACTERISTICS

The following assumptions were used to factor the operating profile of the system.

Route

Length: Determined by the round-trip distance between the event site and its paired transit hub.

Cycle Time: Round-trip travel time + dwell at both ends.

Operating Window: Aligned to peak ingress/egress (typically 4–6 hours per event window).

Destination Points	Round-Trip Length (Mi)	Travel Time RT (Min)	Dwell / Cycle (Min)	Cycle Time (min)	Hours of Operation
Hard Rock Stadium to MLK Jr. Metrorail Station	20	60	10	70	6
Kaseya Center to Lincoln Road	9	40	10	50	6
Venetian Marina to Maurice Gibb	5	22	10	32	10
Marine Stadium to Vizcaya Metrorail	7	20	10	30	4
Homestead Speedway to South Dade P&R	11	30	10	40	6

COST ASSUMPTIONS

The operating cost assumptions used in this study were based on agency-provided data and prior feasibility work:

- Bus Operations (DTPW): According to Miami-Dade Transit service planning, the operating cost for a standard DTPW bus is $152 per vehicle-hour (as of September 2025).
- Waterborne Operations (Ferry/Water Taxi): Based on the Miami-Dade TPO's Water Service Feasibility Study, ferry services are assumed to operate at approximately $245 per vessel-hour.
- To ensure a realistic estimate of total operating costs for special event transit services, an additional 20% has been added to account for variable expenses incurred at pick-up and drop-off locations. Examples of these costs are:
  - » Stanchions and queue management equipment
  - » Portable restrooms
  - » Temporary signage and wayfinding aids
  - » Shaded waiting areas and hydration stations
  - » Additional staffing or security.

- The daily operating cost for each on-demand service was determined by multiplying the hourly operating cost (as provided by DTPW and the Water Service Feasibility Study) by the number of service hours and the required fleet size. The total event cost was then calculated by multiplying the daily cost by the number of event days. To estimate cost per rider and cost per event attendee, the daily cost was divided by the targeted daily ridership and by the total number of event attendees, respectively.

Special Event/Venue	Operating Cost/ day	Operating Cost/ event	Operating Cost/ rider	Operating Cost /Event Attendee
F1 – Hard Rock Stadium	$39,398	$118,195	$8.60	$0.43
Ultra – Bayfront Park	$15,876	$47,628	$9.92	$0.30
Art Week – Miami Beach/Wynwood	$17,640	$88,200	$7.35	$1.10
Country Bay – Virginia Key	$6,566	$13,133	$2.63	$0.66
NASCAR – Homestead Speedway	$8,755	$24,077	$3.21	$0.80

TAKEAWAYS

Miami-Dade Transit (DTPW) operates two primary bus types for special-event service: 40-foot standard buses and 60-foot articulated buses. The articulated bus option offers several advantages and trade-offs compared to standard buses:

- Articulated buses can accommodate significantly more passengers per trip than standard 40-foot buses. This increased capacity means that fewer buses are needed overall to transport the same number of event attendees.
- By moving more people per vehicle, articulated buses can help streamline boarding and reduce the number of trips required.
- However, articulated buses have certain operational constraints. Their larger size and longer wheelbase limits maneuverability, especially on routes with tight turns, narrow streets, or temporary detours. They may also require specific platform configurations and additional space at pick-up and drop-off locations.

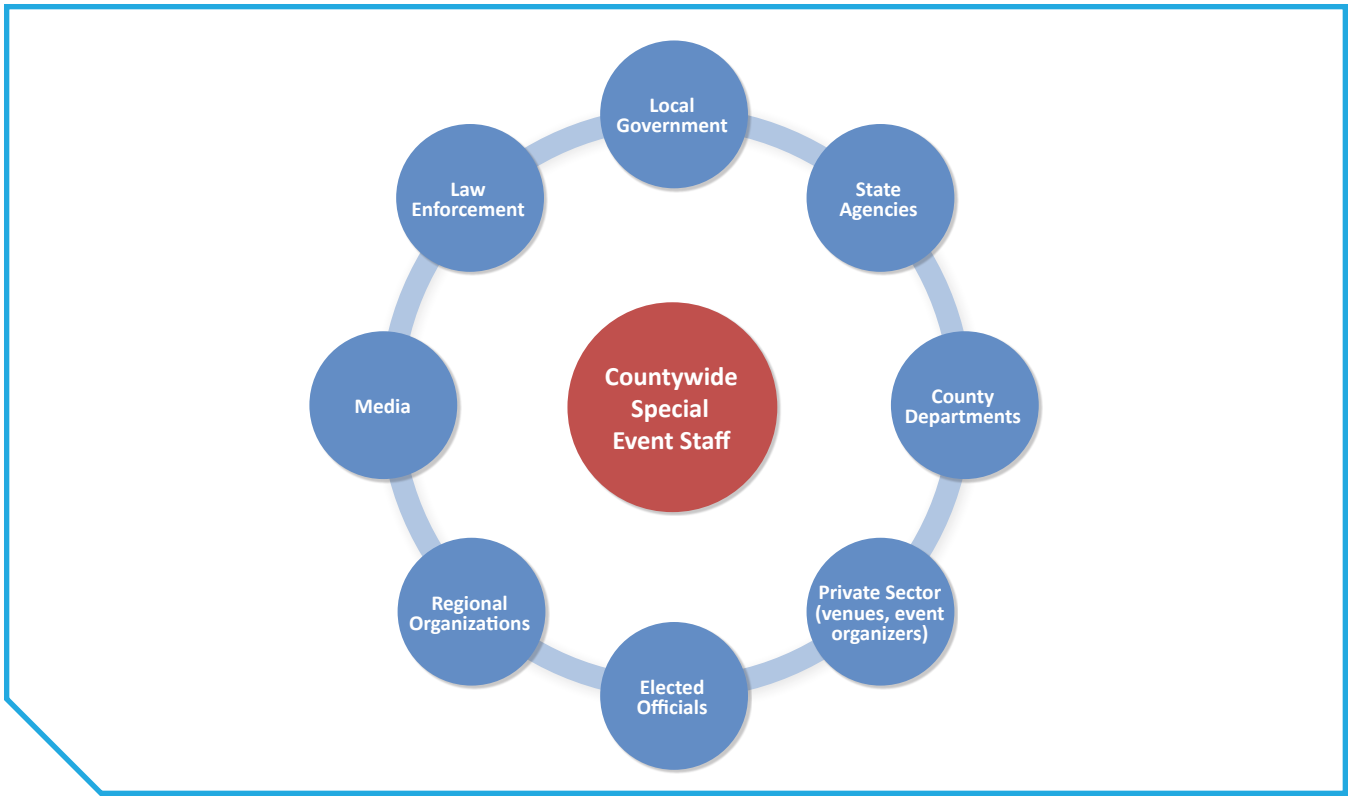
In this analysis, all ridership calculations were based on an assumed 100% load factor for each vehicle, meaning every seat (and, where applicable, standing space) was considered occupied during service windows.

- This approach provides a clear upper-bound for operational planning and helps estimate the minimum number of vehicles required to meet target ridership goals.

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COUNTYWIDE RECOMMENDATIONS

COUNTYWIDE RECOMMENDATIONS



The absence of a streamlined framework often leads to duplication of effort, uneven communication, and missed opportunities for integration. Establishing a dedicated special event mobility taskforce would provide the necessary structure to align policies, resources, and operations across Miami-Dade County.

This taskforce would build on the working group convened as part of this study, transitioning it into a standing body that meets regularly to address upcoming events and evaluate lessons learned. Its members should include a mix of public and private stakeholders, including TPO staff, law enforcement, rideshare providers, local government, state agencies, and venue/event operators.

Key functions of the taskforce would include:

- Streamlining permitting and approvals for event-related transit operations, shuttles, and street closures.
- Coordinating roles and responsibilities among agencies to avoid duplication and clarify day-of operations.
- Discussing operational challenges in advance, including crowd surges, weather contingencies, and technology support (e.g., signal priority, cellular coverage).
- Applying lessons learned from previous events to refine strategies year over year.

The Federal Highway Administration (FHWA) has emphasized the value of such multi-agency coordination through its guidance on special event transportation management, showing that proactive planning and structured communication are critical to safety, efficiency, and customer experience. Miami-Dade County aligns itself with these national best practices and ensures that the region is prepared to support world-class events in a safe, accessible, and sustainable manner through formalizing this task force.

PROJECT WORKING GROUP 3
SEPTEMBER 11, 2025

PARTICIPANTS

1. Alice Bravo (Alice Bravo & Associates)
2. Jorge Caballero (DTPW)
3. Christopher Miranda (Key Biscayne)
4. Evan Korn (IDEKO)
5. Raymond Freeman (FDOT)
6. Merrel Higer (Miami Dolphins)
7. Mayra Diaz (GMX)
8. Ana Sandoval (Gannett Fleming)
9. Jose Ramos (Miami-Dade Aviation)
10. Mikhail Ryabov (Miami Beach)
11. Joel Gonzalez (City of Miami Police Department)
12. Jeremy Gauger (Key Biscayne)
13. Eric Fliss (Dennis C. Moss Cultural Arts Center)
14. Schneider St. Preux (DTPW)
15. Alexandra Scroggin (TPO)
16. Jeannine Gaslonde (TPO)
17. Cade Gerks (WSP)
18. Thomas Rodrigues (WSP)

Meeting Summary :

The third PWG meeting was held on September 11, 2025, and focused on presenting the project recommendations. The meeting was conducted virtually.

The study recommendations were presented to the PWG members, including the general recommendations and site-specific recommendations. These included the site point-to-point dedicated transit hubs linking special event venues to DTPW transit services, and the suggestion to test the services through pilot projects.

Representatives from Key Biscayne supported the recommendation for a dedicated transit lane to Virginia Key during special events, and suggested the use of traffic cones as a low-cost yet effective means of rapidly deploying a temporary dedicated transit lane.

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CONCLUSION

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Miami-Dade County's special events generate significant economic value, but they also create major transportation challenges. This study demonstrates that expanding multimodal, on-demand first/last mile services can play a role in addressing these challenges by reducing congestion, improving access to transit, and enhancing the overall attendee experience.

Moving forward, implementing a combination of countywide coordination and venue-specific mobility strategies will ensure Miami-Dade County is prepared to manage events of all sizes to best position itself as a national leader in sustainable and efficient event mobility.

Recommendations:

1. **Leverage DTPW facilities to create First/Last Mile Multimodal Hubs, to provide dedicated and frequent transit service linking to event venues**

This strategy allows for point-to-point transit connections linking event venues and major transit hubs before, during, and after events to provide attendees with alternate modes for arriving at their event.

Anticipated special event demand is typically aligned with off-peak periods for transit (i.e. weekends). This means that special event usage typically will not overly stress DTPW operational needs.

2. **Provide the option to include a public transit fare during ticket purchasing for events that exceed a capacity of 5,000 attendees**

- Pilot projects can be used to test the viability of these services.
- Integrating the option of purchasing transit fares with event tickets reduces the barrier to usage.
- Next steps: explore feasibility of flexible fare as suggested by Miami-Dade County Resolution R-987-25.

3. **Identify special event staff to coordinate local events**

County staff can serve as liaisons between event organizers and stakeholders (municipalities, transit agencies, law enforcement, fire/rescue, etc.) to streamline planning and coordination.

County can establish consistent policies and permitting procedures for event organizers and community stakeholders.

4. **Test viability of study recommendations through pilot projects**

Services can be tested and adjusted as necessary to fit changing needs during pilot phase.

Miami Beach launched a free water taxi service (as of January 20, 2026, near the completion of this study) based on success of a Miami Art Week pilot program.