

## EXECUTIVE SUMMARY

The Miami-Dade Transportation Planning Organization (TPO) conducted a study to identify the necessary multimodal improvements to support the people traveling to and from the new Aventura Brightline Station.

The Aventura Station is one of the stops along the Northeast corridor, one of the six corridors identified in the Strategic Miami Area Rapid Transit (SMART) Plan. It was identified as a SMART hub in the 2019 Transportation Development Plan (TDP) by the Miami-Dade Department of Transportation and Public Works (DTPW). The new station serves multiple municipalities and jurisdictions. The station itself is located within unincorporated Miami-Dade County in the Ojus neighborhood and immediately adjacent to the City of Aventura. Within a 2-mile radius is the City of Hallandale Beach in Broward County, City of Golden Beach, City of Sunny Isles Beach, and North Miami Beach in Miami-Dade County. The major destinations are the Aventura Mall, Aventura City Hall, Founders Park, Country Club Golf Course, and trail within a mile in Aventura. The existing Aventura Transit Hub serves Miami-Dade County and Broward County transit and located within the Aventura Mall, about a quarter mile from the station. The future East bridge across US-1 will connect the Aventura transit hub through a proposed plaza adjacent to the transit hub.

## CONTEXT

The Aventura Station with a park-and-ride lot along the Northeast SMART Corridor is expected to be operational in Fall 2021. This station will be located at 19700 West Dixie Highway and serves the high-speed train and commuters with a connection to downtown Miami, Fort Lauderdale, and West Palm Beach. The West bridge will provide a safe connection across the existing railroad tracks for people walking to and from the new station and the train platform. A second pedestrian-bike bridge (East bridge) across Biscayne Boulevard/US-1 will connect the station to the Aventura Mall and the Miami-Dade Bus Terminal/Aventura Transit Hub. Even though, the East bridge is funded, the bridge's design and construction are expected to be complete by 2024.

## PURPOSE AND NEED

The Aventura Station will include a park-and-ride commuter lot providing the infrastructure for those driving. However, safe non-vehicular connections and infrastructure between the new Aventura Station and the surrounding Aventura-Ojus neighborhood are limited. Even though the City of Aventura currently has a local circulator between the Aventura Mall and other parts of the City, there are no connections to and from the new Aventura Station. The current conditions

offer limited mobility options between the Aventura Station and the unincorporated Ojus neighborhood. Therefore, there is an immediate need for safe, mobility connections for people who use other transportation modes other than driving.

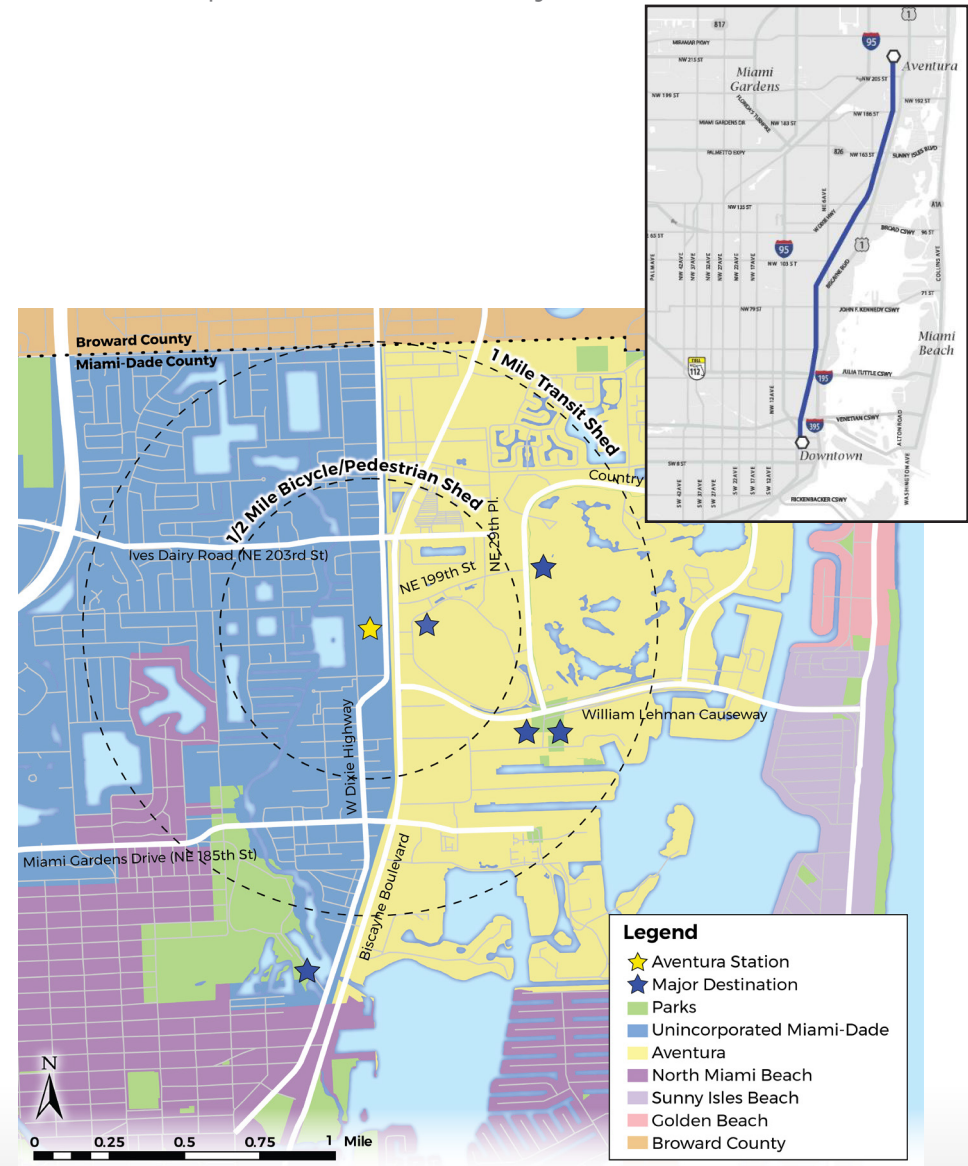


Figure A: (top) Northeast Corridor and station locations. (center) Study Area around the Aventura Brightline Station

## OBJECTIVES

This study will evaluate connectivity, mobility, and safety improvements for a well-linked transportation system that includes active transportation (walking, biking) from the Aventura Station. Study objectives and goals are to:

1. Propose infrastructure improvements for multimodal access around the Aventura Station within ½ mile from the station for people walking biking and other micromobility devices, within 2-mile radius from the station for transit.
2. Recommend an alternate implementation/project deliver method.

## STAKEHOLDERS INPUT, COMMUNITY PRIORITIES

Input was solicited from a dedicated advisory group and from the public to identify the necessary improvements to support safe access for the people traveling to and from the new Aventura Brightline Station. A Study Advisory Group (SAG) with Municipality, County, State agencies, private and public transit agencies, and neighborhood representative was formed to guide the study. The SAG met three times during this study. Also, input was solicited from people who live, work, or play within approximately two-miles of the proposed station including, Ojus (unincorporated Miami-Dade County), Cities of Aventura, Hallandale Beach, North Miami Beach, and Sunny Isles Beach. Community input was solicited in four languages, English, Spanish, Haitian Creole, and Russian, through online and mail-in surveys between September 8, 2020, and November 6, 2020. Mail-In Survey with self-postage and fact sheets were distributed within the surrounding communities.

The project received 360 survey responses, of which 359 responses were online. The online responses consisted of 339 surveys in English, 18 surveys in Spanish, and two surveys in Russian. The only mail-in survey was in Spanish. A majority, 161 surveys were completed by people in the City of Aventura. Also, 266 surveys were from people between the ages of 31 and 65. A detailed summary is in Appendix 2.

Communities priorities identified through the survey are summarized below.

### Essential Improvements for people walking

- » Continuous Sidewalk
- » Safe Crossings
- » Shade and Trees along sidewalks

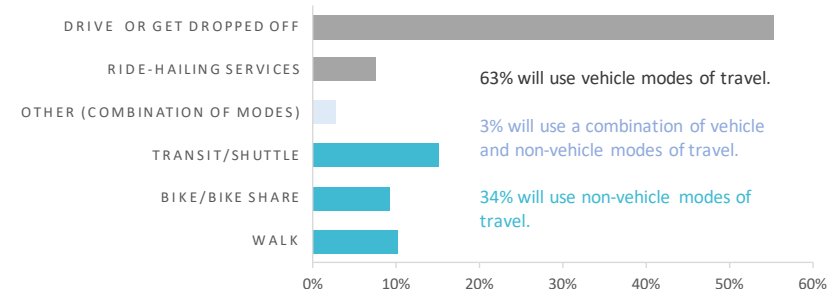
### Essential Improvements for people biking

- » Green-colored bike lanes
- » Bike storage (lockers at station)
- » Bikeshare stations

### Essential improvements to those using transit

- » Frequent operation hours
- » Sheltered transit stations
- » Arrival and departure updates

QUESTION 1. HOW WOULD YOU MOST LIKELY TRAVEL TO THE NEW AVENTURA TRAIN STATION?



QUESTION 5. WOULD YOU USE AN ON-DEMAND SHUTTLE, INSTEAD OF DRIVING OR BEING DROPPED OFF, IF IT WERE AVAILABLE?



## SITE AUDIT, PREVIOUS PLANS

The geographic information data processing tool ArcGIS was used for analysis. Data of existing infrastructure was collected from the Miami-Dade TPO, Florida Department of Transportation (FDOT), and the Department of Transportation and Public Works (DTPW), Miami-Dade County. The Geographic Information System (GIS) data was analyzed to identify infrastructure and transit service gaps. The infrastructure gaps were verified on-site during a site audit. The team followed the Center for Disease Control (CDC) guidelines during the COVID-19 pandemic. The site visit was restricted to internal team members and the information was collected virtually using the ArcGIS Survey 123 Application. Data was verified, and additional information, including site observation and photographs were collected. The collected data including photographs are available on the Aventura-Ojus Site Audit' application and viewed on the desktop and mobile phone.

## REGIONAL MOBILITY AND CONNECTIVITY

### VEHICULAR ROADWAY INFRASTRUCTURE

The Aventura Station is located along Dixie Highway, a major North-South regional connector and parallel to another major North-South regional connector, Biscayne Boulevard/ US-1. Both these corridors connect and extend between Miami-Dade and Broward Counties. Three major East-West Corridors are within one-mile of the station. NE 203<sup>rd</sup> Street/Ives Dairy Road and NE 185<sup>th</sup> Street/Miami Gardens Drive connect directly to Interstate-95 (I-95), whereas William H Lehman Causeway connects with A1A.

DTPW's, Vision Zero Implementation Plan analysed crashes resulting in severe injuries and deaths crash data between 2015-2019 consistent with the adopted TPO's Miami-Dade County 2018 Vision Zero Plan. The study identified Biscayne Boulevard between NE 203<sup>rd</sup> St/Ives Dairy Road and NE 185<sup>th</sup> Street/Miami Gardens Drive, as a high-injury-network and one of the most deadly roadway segments. Within the study area, the other high crash roadways are Country Club Drive, NE 199<sup>th</sup> Street/Aventura Boulevard, and NE 203<sup>rd</sup> Street/Ives Dairy Road.

To improve the current state of safety, we recommend coordinating with the efforts of DTPW's Vision Zero and develop a Vision Zero program within the City of Aventura. This Vision Zero program should include a comprehensive Safety Audit, funding for safety improvement projects, combined with community outreach in the long-term. In the short term, immediate engineering countermeasure can be used to improve the safety all users. This study recommends prioritizing

some roadways for people walking and biking by re-purposing excess asphalt within the existing major and local roadways. The multimodal priority roadway will retain the existing vehicular capacity and provide dedicated infrastructure for safety, mobility and access for people who do not use a vehicle. Multimodal priority roadways were identified by analyzing data, observations during the site audit, identified community priorities, and recommendations from previous studies. The following implementation strategies will improve all roadway users' safety.

- » Evaluate the feasibility of eliminating one travel lane along Country Club Drive, NE 199<sup>th</sup> Street/Aventura Boulevard and along NE 203<sup>rd</sup> Street/Ives Dairy Road between NE 29<sup>th</sup> Place and W Dixie Highway.
- » Study the feasibility of reducing the posted speed limit to 20 MPH in combination with the lane eliminations along Country Club Drive, NE 199<sup>th</sup> Street/Aventura Boulevard, and NE 203<sup>rd</sup> Street/Ives Dairy Road between NE 29<sup>th</sup> Place and W Dixie Highway.

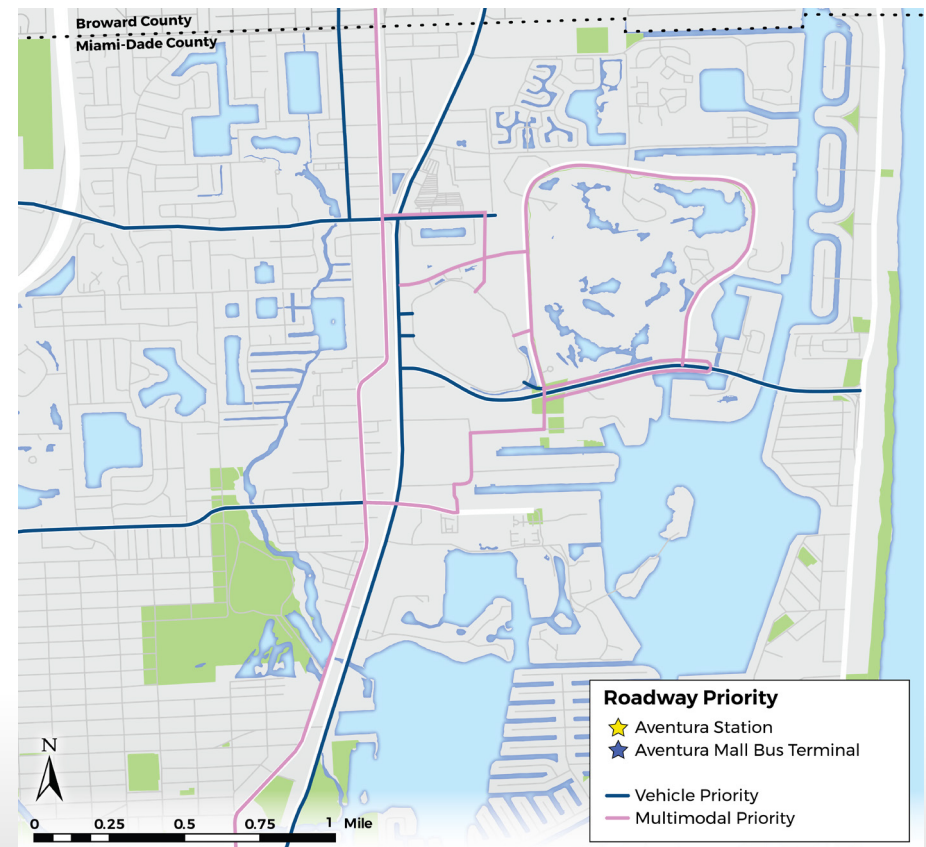


Figure B: Proposed vehicular and multimodal priority corridors

## PEDESTRIAN AND BICYCLE INFRASTRUCTURE

Existing infrastructure for people walking is primarily a well-connected 5-foot sidewalk along with the majority of the Study and a multiuse trail between 8 to 12 feet along Country Club Drive. However, the infrastructure for pedestrian crossing is inadequate. Marked crossings are only at signalized intersections, and the distance between two marked crossings is sometimes over 1,000 feet. Existing bicycle infrastructure around the Aventura Station is discontinuous, often less than 5 feet wide and without separated infrastructure. The crashes involving people walking and biking are concentrated along Biscayne Boulevard, and the next highest crashes corridor is Country Club Drive. However, the highest bicycle ridership along the Northeast Corridor is at the Aventura Station area, as identified by the study North-South Transportation Needs for the Coastal Communities Feasibility Study. Study survey responses noted essential improvements for walking are wide and continuous sidewalk, shaded walking paths and adequate number of safe crossings. Essential improvements for biking noted by the survey respondents are green-colored bike lanes, bike storage lockers at the Aventura Station, and bike-sharing stations. Feedback from the adjacent municipalities and the SAG committee indicates a consensus among the municipalities for a safe and connected bicycle network. Therefore, recommendations to increase safety and mobility for people walking or biking is to provide a connected network with dedicated bicycle lane, and safe crossings between 250 to 600 feet apart, where pedestrian destinations are located and likely to cross the street. Specific recommendations are:

1. Work with FDOT and DTPW to remove pavement markings on the discontinuous bike lanes along Biscayne Boulevard and along NE 26<sup>th</sup> Avenue. Reroute people biking to alternate route.
2. Study the feasibility of repurposing the excess asphalt/paved area along non-vehicle priority designated roadways. Install separated bike lanes/ two-way cycle track with walking path along:
  - » the eastbound entrance and westbound exit ramp to Lehman Causeway at Country Club Drive, continuing the existing green-bike lanes between AIA and the exit.
  - » Country Club Drive
  - » NE 199<sup>th</sup> Street through NE 29<sup>th</sup> place to NE 203<sup>rd</sup> Street/Ives Dairy Road
  - » West Dixie Highway
3. Evaluate safe crossing opportunities at Country Club Drive at west bound exit and east bound entrance ramps.
4. Evaluate the feasibility of installing modern roundabouts with appropriate bicycle and pedestrian crossings at:

- » NE 26<sup>th</sup> Avenue at NE 202<sup>nd</sup> Street
- » West Dixie Highway and NE 26<sup>th</sup> Avenue.

5. Install bikeshare/scooter share with parking at multiple locations within the study area, including the new Aventura Station
6. Study the feasibility of installing marked mid-block crossings between 250 to 600 feet apart, where pedestrian destinations are located and where they are likely to cross the street with refuge islands per FDOT Criteria for crossings.
7. Install pedestrian and bicyclist wayfinding signage, particularly along the multi-modal priority corridor connecting people between the Aventura Station and the destinations within the study area.
8. Install secure bike locker facilities at the Aventura Station in coordination with Brightline.
9. Provide placemaking through public art to reinforce and celebrate community identity. Evaluate creating a raised pedestrian plaza at the intersection of the US-1 underpass at NE 203<sup>rd</sup> Street. Analyse the feasibility of repurposing excess asphalt space by reducing the width of travel lanes from 15 to 11 feet while maintaining all existing vehicle movements. Also, study feasibility of repurposing the unused existing concrete space under the bridge to provide for community activities, events like farmers' markets. Also, this location will serve as a stop along the future Dixie Highway SUN Trail. Recommendations include:
  - » Public art on the wall of the bridge
  - » Pedestrian lighting and upward bridge lighting
  - » Decorative bollards separating vehicles and people walking and biking





Figure C: Recommendations for bicycle network infrastructure



Figure D: Corridor specific recommendations for pedestrian and bicycle infrastructure

## TRANSIT SERVICE

The Aventura Mall Bus terminal serves as the major transit hub within 2-miles from the Aventura Station. The terminal serves eight Miami-Dade Transit (MDT) fixed-routes, two Broward County Transit (BCT) fixed-routes, and local City of Aventura circulators. Also, surrounding municipalities, the City of Sunny Isles Beach and the City of North Miami Beach, have local circulators within the study area. Currently, only MDT Route 9 services the Aventura Station.

However, there is a need for a better transit system. Community priorities based on the survey and the municipalities' feedback indicate a need for on-demand shuttle services, essential improvements to existing transit service, and improved connections to the surrounding cities.

Therefore, recommendations to increase mobility using transit include:

1. Launch an on-demand service within 2-mile of the Aventura Station.
2. Launch the procured on-demand service serving the City of Aventura and the Aventura Station.
3. Extend the MDT routes 93, 119, and 183 to the Aventura Station.
4. Launch the procured dedicated fixed-route transit between the City of Hallandale Beach and the Aventura Station.
5. Extend the internal circulators within the City of North Miami, City of Sunny Isles Beach, and City of Aventura to the Aventura Station. Circulators must coordinate timing with the Brightline trains schedule to reduce wait time for users.
6. Increase the transit service frequency and extend the operational hours to support people who beyond the typical office hours.
7. Provide readily accessible transit and circulators arrival departure updates.
8. Install covered bus shelters along West Dixie Highway and other corridors.

In addition to the above recommendation, there are multiple municipalities, and each with its own circulator/shuttle, two transit agencies with fixed route, each with their own application, together they provide comprehensive service within the study area. However, the separate agencies route is difficult to access by a person who arrives at the Aventura Station and not familiar with the available options. Therefore, integrated transit services connecting Aventura Station users with multiple municipality, County and private mobility providers is recommended to provide seamless mobility interactions.

Coordinate with DTPW's efforts to provide open-data through its application- GO Connect between private and public mobility providers.



Figure E: Recommendations for transit service improvements

**Chapter 5 Corridors** includes detailed, specific recommendations, before-after street sections and illustrations for each corridor within the study area.

**Chapter 6 Recommendations Summary** notes all the proposed recommendation with illustrative examples, planning-level cost estimate and construction time-frame.