EAST-WEST CORRIDOR

TRANSIT-ORIENTED DEVELOPMENT (TOD)
STATION AREA MASTER PLAN

PROJECT INFO PAGE

The East-West Transit-Oriented Development (TOD) Master Plan is supported by a grant from the Federal Transit Administration's (FTA) TOD Pilot Program and matching funds from the Miami-Dade County Citizens' Independent Trust (CITT) Half-Penny Transit Surtax.

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

Funded by the Citizens Independent Transportation Trust (CITT) and Federal Transit Administration (FTA), this Transportation Oriented Development (TOD) Master Plan lays out a vision for the East-West Strategic Miami Area Rapid Transit (SMART) Plan Corridor (State Road 836/Dolphin Expressway) that seeks to spur equitable economic development and create more livable communities around a high-quality rapid transit corridor. Although transit is the focusing aspect of TOD, other elements are fundamental for it to be successful. Transit does not necessarily always spur development or re-development, but TOD can commence before transit improvements are implemented. The timing of this plan is critical: A locally preferred alternative (LPA) for the corridor was recently selected by the Miami-Dade County Transportation Planning Organization (TPO) Governing Board. Station concepts are being analyzed and the alignment further refined and being prepared for design. The development of a TOD master plan around station sites along the corridor will help maximize development close to the station sites to help sustain transit ridership that ensures the corridor is successful. This master plan ensures that the framework for development is ready for the inception of transit service.

The Case for TOD

Over the past two decades, planners and developers have reached a consensus that Transit-Oriented Development provides substantial value above traditional development and solves numerous urban problems beyond the concerns of transportation. TOD comes in many different forms, and the common attribute of concentrated development around rapid transit inherently provides benefits for residents, businesses, developers, and local governments. Well established benefits include:

- Improved public health due to physical activity and reduced stress
- Reduced travel time and cost for residents
- Enlarged labor pool for businesses
- Increased foot traffic for retail
- Reduced single occupant vehicle trips
- Increase transit ridership system-wide
- Reduced congestion
- Reduced air pollution

These benefits are understood by the public, and the desire to live in experience their combined benefit results in a consistent pattern of increased property value for properties nearby rapid transit, especially planned TODs.

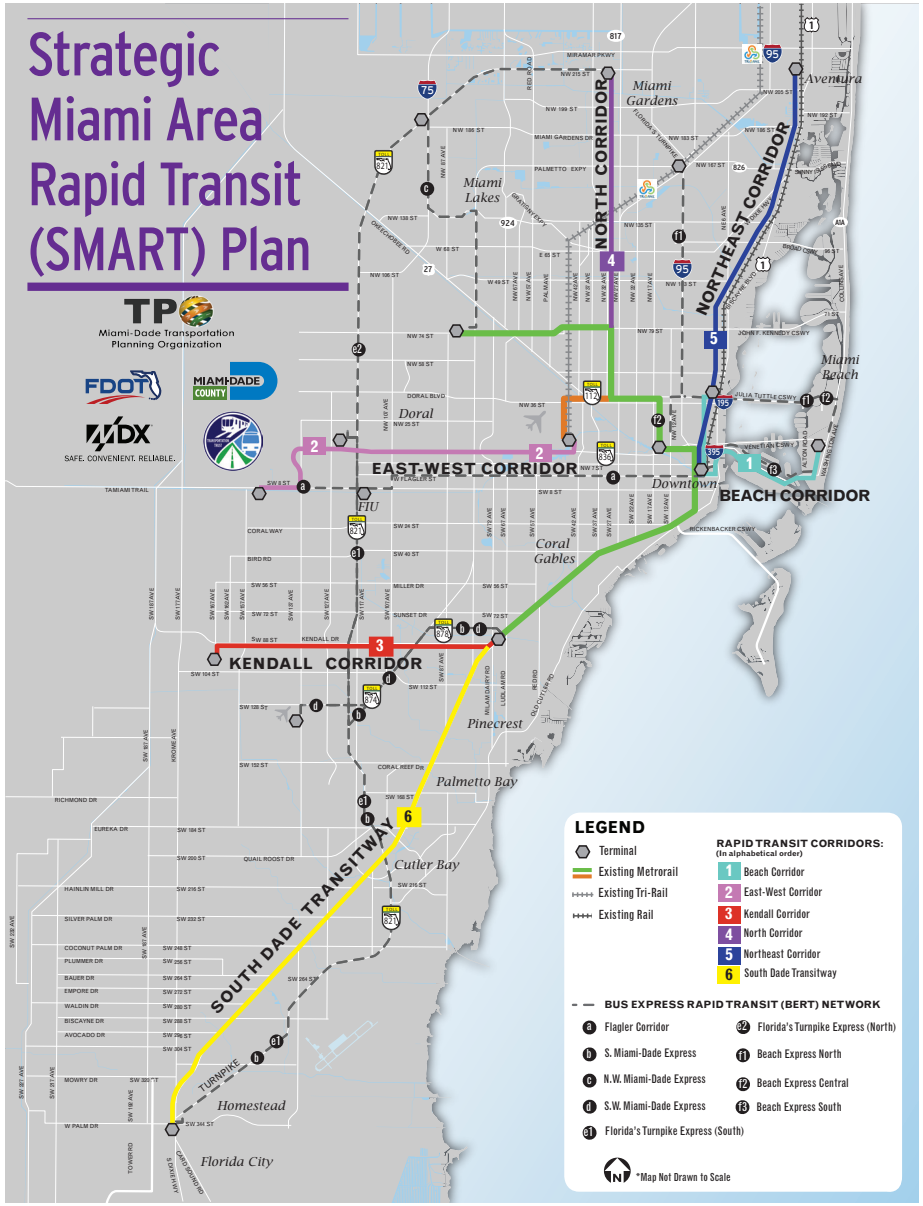
1.2 THE SMART PLAN

The East-West Corridor is one of six corridors that comprises the Miami-Dade County SMART Plan, which was conceived to expand the reach of rapid transit services throughout the County. Developed through a close collaboration between the County's Department of Transportation and Public Works (DTPW) and the TPO, the SMART Plan serves as a strategic vision to advance these six corridors from the planning and conceptual stages through the construction and commencement of service.

The successful implementation of the SMART Plan relies on collaboration between the County, Municipalities, the State, and the Federal government. The Florida Department of Transportation (FDOT), the Miami-Dade Expressway Authority, and other local entities are vital partners in ensuring the SMART Plan develops from a series of plans into an executed reality.

The East-West Corridor connects three municipalities (Sweetwater, Doral, and the City of Miami) and large stretches of unincorporated Miami-Dade County. The corridor serves a mix of uses, including suburban residential communities, high density apartment districts, large shopping malls, the Airport, and Downtown Miami. The East-West Corridor's western terminus is at SW 147th Avenue and SW 8th Street, and extends eastward to the Miami Intermodal Center (MIC) and Downtown Miami.

Figure 1-1: THE SMART PLAN

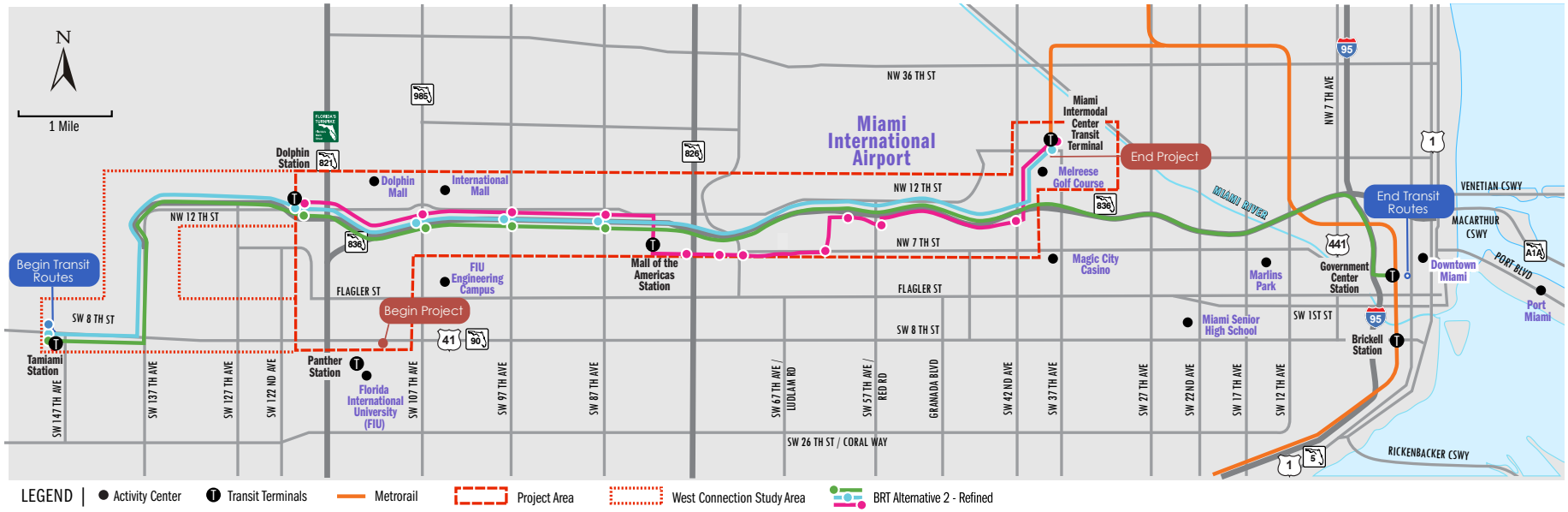


1.2.1 PREVIOUS PLANS AND STUDIES

East-West Corridor Project Development & Environmental (PD&E) Study

A PD&E study is under way to determine the East-West Corridor's mode and alignment, which is being to further refined through preliminary engineering design and an environmental analysis to achieve eligibility for federal funding. Initially, the PD&E study evaluated different modes, including heavy rail, commuter rail, and combinations of bus and rail services. Different alignments were also considered, including routes along the north and south sides of the highway. Ultimately, the LPA was selected as BRT on the basis that it provides the best combination of speed, service frequency, and accessibility for all anticipated riders.

Figure 1-1: EAST-WEST CORRIDOR PD&E STUDY - BRT ALIGNMENT



The LPA consists of three Bus Rapid Transit (BRT) routes along exclusive busway lanes operating generally in the center median the Dolphin Expressway (SR-836) Corridor. Two routes will commence at Tamiami Station, while a third route will commence at Dolphin Station, located at 12065 NW 12th St. These BRT routes will extend eastward, with two routes terminating at the MIC, and one route in Downtown Miami. Stations located along the Dolphin Expressway are situated adjacent to the middle shoulder of the highway. Route 3 exits the highway and provides local service along NW 7th Street between NW 87th Avenue and NW 57th Avenue, before rejoining the Dolphin Expressway.

East-West CSX TOD Study

Miami-Dade County and the TPO have gone through extensive planning efforts to study the East-West Corridor. In 2017, the Miami-Dade TPO conducted a TOD visioning exercise for the CSX East-West railroad corridor. This study, which predated the conception of the SMART Plan, assumed commuter rail service would be operated on an underutilized railroad corridor that runs parallel to the Dolphin Expressway and provide occasional freight cargo service for the stone mining operations on the western boundary of the county.

The study developed TOD visions for four stations along this corridor - NW 137th Avenue, the Dolphin Park-and-Ride, NW 107th Avenue, and NW 82nd Avenue. The study identified development opportunities, looking at vacant land, socioeconomic characteristics and other factors to develop concepts for potential development near the station sites.

TPO East-West Corridor Land Use Visioning & Accessibility Study

This study involved extensive stakeholder coordination and public outreach. Two series of design charrettes were held to ascertain public input on the corridor's challenges, opportunities, liabilities, and assets (COLA). The public also provided input on what type of development is needed along the corridor and where it should be located. Following the initial charrette series, several land use scenarios were developed and evaluated, consistent with the East-West Corridor PD&E study conducted by DTPW. The scenarios included additional population and employment growth at various station areas, with travel demand forecasting conducted to estimate potential ridership. A preferred land use scenario was developed, consistent with the LPA identified in the PD&E Study. This scenario was presented to the public during the second charrette series, where additional input was provided regarding development intensity at existinmg and proposed stations. Visualizations at the corridor and station area were key features of the study.

The East-West Corridor Economic Mobility & Accessibility study

This study identified economic development potential and first-mile/last-mile connections for each station area, as well as transit hub components for the Corridor. An economic analysis was conducted to identify the potential market for additional residential, office, retail, industrial and other uses along the corridor. The market analysis generally supported the preferred land use scenario identified in the Land Use Visioning & Scenario Planning Study. Access Mobility recommendations were developed for various stations along the corridor. These recommendations were multi-modal, with a focus on bicycle and pedestrian improvements, along with wayfinding, safety, and amenity enhancements.

1.3 PROJECT GOALS

The ultimate goal of this study is to catalyze equitable development along the East-West corridor to increase future potential transit ridership. Increased development on the corridor is in turn anticipated to help increase revenues to support the operations of the transit service. TOD focuses on land use elements that create density and generate higher ridership. This forms communities that provide ridership demand, and supports the future transit system by giving riders attractive destinations through land use regulations, economic development incentives, and investments in affordable housing, and cycling & pedestrian infrastructure.

Transit-supportive land use planning at station areas also contributes to the project by scoring more competitively in the Federal New Starts process to make TOD a reality. This process, is typically how new transit corridors secure funding for implementation. The TOD Master Plan identifies specific policies and incentives to put in place around the stations to attract context-sensitive, private development. Conversations have been undertaken with numerous stakeholders along the corridor, which will help catalyze future private development around the stations over the coming decades.

There are several project objectives that inform the planning process:

- Conduct a Market Analysis to determine anticipated TOD demand at station sites
- Develop Bicycle and Pedestrian Plans, including capital cost estimates
- Develop Value Capture Strategies for capturing increased economic productivity at the station sites. This funding can in turn be used to fund and further expand the transit service.
- Develop Affordable Housing Strategies for the Corridor
- Identify capacity and demand for water and sewer services to support TOD.

1.4 TOD OVERVIEW

Transit-Oriented Development (TOD) is pattern of compact, pedestrian-oriented development that contains a mixe of uses, centered around quality public transportation in the same way that traditional development has been centered around automobile transportation. TOD typically includes a diverse mix of residential, office, and retail uses acting as neighborhood amenities. A TOD is typically denser than its surrounding area, with the highest intensity adjacent to the transit station. Because TOD is pedestrian oriented, a 15 minute walk from the transit station is where this increased intensity typically returns to the level of the surroundings.

An equitable TOD also includes an emphasis on mixed-income housing, public space, providing freedom of mobility choice, planning at the pedestrian scale, and reduced/shared/removed parking requirements.

The form and function of an individual TOD is highly dependent on context. Density and mix of uses depend not only on the type of transit, but also on the surrounding land uses, input from the community, and the value of the land. The idea of TOD can be adapted to the look and feel of the existing community, and the desires of local residents to ensure a good fit, and avoid problematic displacement.

1.4.1 TOD TYPOLOGIES

While TOD can take many unique forms to adapt to local context and character, some basic typologies have emerged based on the intensity of development, scale of architecture, and land uses present. Some typologies relevant to the context of the East-West Corridor are shown in Figure 1-2 below, based on their land use types and relative intensities. This classification system differs from the FDOT TOD framework, which instead delineates TOD types based on transit mode, Urban/Suburban context, and level of regional importance.

Figure 1-2: TOD TYPOLOGIES

TOD TYPOLOGY	TRANSECT	LAND USES	RESIDENTIAL SCALE	COMMERCIAL INTENSITY	HEIGHT
Community Neighborhood	T4	Residential, Dining, Neighborhood Retail & Entertainment	Single Family, Townhouse	Infill Retail	< 3 stories
Urban Neighborhood	T4 / T5	+ Small Office	Low Density Multi-Family & Townhouse	Small Businesses	3-5 stories
Urban Center	T5	+ Large Office, Major Retail & Entertainment	Multi-Family	Mixed	5-10 stories
Downtown	T6	+ Civic Uses	High Density Multi-Family	Unlimited	> 10 stories

1.4.2 SUCCESSFUL PRECEDENTS

Downtown Dadeland

One of the most illustrative examples of a typical TOD is located right here in Miami-Dade Florida, at the Dadeland South Metrorail Station. This terminal station features a major P3 project, the Datran Center, which includes a large park-and-ride facility for commuters from the south and west, as well as multiple large office buildings. This P3 TOD helped catalyze the private development to the north, Downtown Dadeland. This mixed-use TOD connects the transit station to the Dadeland Mall with street trees and covered arcades that front ground floor retail, with residential uses above.

Denver Flatiron Flyer

The Denver Flatiron Flyer BRT system links Denver to Boulder, Colorado. It is a system that operations in a similar environment to the Dolphin Corridor, with the majority of its service in High Occupancy Toll (HOT) lanes on US Route 36. Notably, development at Broomfield Station is a TOD success story. At this site, a TOD neighborhood was built adjacent to a BRT station within the highway right-of-way. It represents an opportunity to spur TOD in a suburban setting when station infrastructure and development master planning are in place and includes heavy developer participation. The development has 400 residential units with 450 more planned, the ability to deliver 2.6+ million square feet of commercial development, and a performing arts center that holds up to 7,500 people. All of these amenities are situated within a quarter-mile of the Broomfield BRT station. The development also includes an Aloft Hotel and a University of Colorado Health Hospital.

Cleveland Health Line

The Cleveland Health Line one of the most successful BRT systems in the country. It is credited with triggering nearly $10 billion in private and institutional development within walking distance of the corridor. New projects adjacent to the Health Line include 8,800 new residential units, 1,800 new dorm rooms, and 1,300 new hotel rooms, totaling approximately 23 million square feet of new development. The line is also linked with the creation of 13,000 new jobs. Since its inception in 2008, the $50 million Health Line has served more than 44 million customers. The cost-benefit ratio of the Health Line is almost 1:20 having leveraged $190 dollars for every single dollar invested in the system. The economic impact of this route makes it one of the most successful BRT systems in the world.

1.4.3 CHALLENGES AND OPPORTUNITIES FOR TOD AROUND BRT

When planning for TOD around BRT stations, there are additional considerations that should be taken into account due to the perceptions of bus-based systems on market demand. To catalyze economic development around a BRT station, the proposed TOD must successfully overcome challenges and find opportunities to leverage the advantages of a flexible BRT system. These challenges and opportunities include:

1. **Perceptions of permanence and perceived risk.** When infrastructure and other private investment adjacent to BRT stations is not substantial enough, there is a risk that the TOD will lack the permanence to successfully catalyze long-term economic transformation. The opportunity is to build confidence in private investment through high-quality infrastructure that creates a sense of permanence.

2. **Perceptions of the corridor as new and fresh.** When BRT systems are implemented, they often replace existing bus services, creating a feeling of novelty and excitement within a corridor for both riders and potential developers. This motivates ridership and exploration, which are critical to overcome the typical perceptions of bus transit, catalyze TOD investment, and change the dynamics of market realities within the corridor. The opportunity is to integrate BRT and TOD, and brand the pair as an exciting lifestyle experience.

3. **Ridership profile and market differences.** Evidence suggests that the ridership profile for bus and rail are dramatically different, indicating that rail attracts riders with more disposable income, who are aligned with the return on investment needed for TOD. The opportunity is to create a high ridership corridor by capturing both groups through affordable housing combined with enhanced station areas and rider experiences that appeal to choice riders.

4. **Ridership impacts of park and ride facilities.** Park-and-ride facilities are proven to provide an advantage to fixed guideway systems; however, the impact on BRT systems is somewhat unclear. When park and rides are included in TODs, this removes valuable land from the development potential and curtails ridership associated with mode-shifting. The opportunity is to incorporate park-and-ride facilities with high density vertical developments to balance available parking, capacity, access, and future development.

5. **Industry and agency capacity for implementing TOD around BRT.** Unlike many transit agencies and local governments, DTPW has the staff and expertise to successfully execute TOD planning. The opportunity is to work with developers to ensure that developments provide a positive outcome for the local community and support the county transit system.

6. **High-quality, pedestrian access and street safety.** It is difficult to incorporate direct pedestrian access to TOD when high-frequency buses must make conflicting movements with other modes. Compared to typical buses, there can be some impacts on the built environment; but, when compared to other high-capacity transit, BRT has no greater impacts. The opportunity is to provide extreme care in managing movements to ensure that multi-modal access and pedestrian connections to TODs remain safe during operations.

7. **Urban development density and scale.** BRT TOD has a lesser impact on ridership increase and auto-trip reduction as other fixed guideway systems. Since BRT TOD has a smaller area of influence, planning efforts need to be tightly focused. The opportunity is to strategically locate TOD within areas that can capitalize on employment centers, commercial districts, and neighborhoods to ensure they are successful at inducing ridership.

1.5 THE MIAMI-DADE COUNTY APPROACH TO TOD

Through the years, DTPW has accumulated a strong track record of forming Public Private Partnerships (P3s) to deliver quality TOD adjacent to transit stations, particularly the Metrorail. Miami-Dade County has advanced several measures in recent years to help facilitate TOD development throughout the county, particularly along the SMART Corridors. These measures are intended to facilitate greater development concentration around transit sites to encourage more transit usage and intensify development where it is most sustainable for the community. DTPW has identified several goals for successful TODs at its stations. These are:

- Reduce the number of household drivers.
- Lower congestion, air pollution and greenhouse emissions.
- Create walkable communities to promote healthy lifestyles.
- Increase transit ridership and fare revenue.
- Expand mobility choices that reduce dependence on the automobile.
- Reduce transportation costs.

Figure 1-2: EXAMPLES OF TOD IN MIAMI-DADE COUNTY

1.5.1 BENEFITS TO MIAMI-DADE COUNTY, DORAL, SWEETWATER, AND THE CITY OF MIAMI

There are many direct benefits to county and city residents that will be derived from TOD development. With new access to transit, there is an opportunity to leverage that investment to transform communities along the corridor. TOD is a method to maximize the ridership potential of the new transit system and functional potential of the land around it.

Increase Transit Ridership

To secure FTA funding for transit system improvements, we must demonstrate that the new system is satisfying excess ridership demand. Implementing TOD along the East-West Corridor can provide an environment that attracts new residents, workers, high-quality jobs, and private investments to the station areas, thus increasing potential ridership for the new BRT system.

Supply Alternative Travel Methods

Currently, residents and workers on the East-West Corridor have limited mobility options, with vehicular ownership practically required. TOD allows people to live within walking distance of transit, presenting the opportunity for a car-free lifestyle outside of the urban core. Quality TOD also supports bicycling and walking by providing a more inclusive street network that connects to the transit corridor, making active transport a viable option for first and last mile transportation and mitigating traffic congestion in Miami-Dade County.

Generate New Economic Opportunities

The National Institute for Transportation and Communities (NITC)

Research by the NITC suggests that there are a variety of indirect benefits for economic development and job growth centered around BRT corridors, including:

1. Improved development patterns within and along BRT corridors, including an overall increase in both office and multi-family apartments;
2. Augmented economic development within BRT corridors that employ advanced information technologies and communication systems;
3. Increased employment within growth sectors along BRT corridors, specifically in manufacturing-related employment;
4. Correlation of premium office rents in BRT corridors within most metropolitan areas;
5. Indications that BRT corridors reduce overall housing and transportation cost within an 8-mile radius;
6. Association of BRT corridors with largest positive-shift in upper wage jobs during the economic recovery; and
7. Improved development and job location outcomes indirectly related to BRT corridors that employ higher-quality design and permanence in station infrastructure and technologies.

TOD along the East-West corridor can result in economic programs and policies that promote increased opportunity for Miami-Dade County residents and businesses. Existing retail in the corridor is generally homogeneous. TOD provides an environment that attracts an increased quantity and quality of retail to both improve quality of life for existing residents and potentially attract additional residential and commercial development.

Equitable TOD strategies should include a focus on land use programs that support the generation of jobs for the local workforce. Coordination with land owners, business owners, and prospective developers is essential to ensure that the visions laid out for the station areas in this document are successfully implemented. This document identifies opportunities to strengthen and complement existing businesses and industries and proposes land uses in the station areas to accommodate them. TOD creates new job opportunities which can benefit communities along the Dolphin corridor by reducing commuting time and transportation expenses while increasing household income.

Finally, TOD on the Dolphin Expressway can attract younger workers who seek housing where there are amenities like restaurants and cafes, entertainment options, and transit access. Moreover, TOD improves walkability and safety, enhances adjoining schools and parks, and facilitates affordable housing and key services such as childcare, all of which can attract both a younger and more experienced workforce.

Develop a Corridor-Wide Vision

The communities along the Dolphin corridor benefit from the planning process, which, in spite of COVID-19 pandemic restrictions and social distancing guidelines, united stakeholders from diverse backgrounds, including residents, business owners, and municipalities to help form a shared vision for the future of the East-West corridor. The process also helped educate local stakeholders to be better prepared for the implementation of the new BRT corridor. kick-starting momentum, interest, and investment in the corridor can be activated by establishing what are hopefully long-term partnerships between agencies, local businesses and private developers.

Provide Diversified Lifestyle Choices

TOD provides more options for residents who want to shop, work, and entertain themselves close to their homes. By placing a premium on cycling and pedestrian mobility, TOD design can also provide options for an active lifestyle and facilitate accessibility for residents of all ages and income levels living on the corridor. Improving amenities, creating more destinations, and making these transformed urban spaces into more livable spaces, TOD creates a sense of community and place that caters to all.

These TOD benefits can be transformative for the communities surrounding the Dolphin Corridor. The plan laid out in this document provides recommendations and presents a vision to help realize the benefits described here.

1.6 HOW TO USE THIS PLAN

The East-West SMART Corridor TOD Station Area Master Plan contains thorough analyses of existing conditions, a context-sensitive TOD vision for each of the four focused station areas, and implementation strategies to help achieve the vision. The Public Involvement chapter documents the essential component of the master plan. It details the engagement process and presents input collected during public charrettes, public design studios, and stakeholder meetings that were carried out throughout the entire project. The existing conditions are outlined in the following chapters, including Corridor Land Development Overview, Corridor Market Overview, and Affordable Housing Study, and Station Area existing conditions. These chapters outline the collected information, projected growth and demand, and conducted analyses to identify challenges and opportunities for TOD corridor-wide and at each station area, and set the stage for the TOD vision.

The Station Area Plans chapter builds on the research, data collection, analyses, and the input and feedback provided by communities and stakeholders to develop a TOD vision for the four selected stations. The plan establishes frameworks for connectivity, open space, and land use and provides recommendations for density and mix of uses that are unique for each station area. Following the vision, the Implementation Toolbox chapter outlines a toolkit of strategies that encompass regulations, affordable housing, multimodal connectivity, and development to leverage transit investment and funding to implement TOD.

2 PUBLIC INVOLVEMENT

In an effort to ensure that the TOD Master Plan reflects the preferences and concerns of the local community, DTPW has engaged members of the public, private sector stakeholders, and government officials through three different methods of outreach:

1. Public events (held virtually due to Covid-19)
2. Meetings with public and private stakeholders
3. Public online map-based commenting tool

In this chapter, we will explore the details of how each one of these outreach efforts was conducted, to show how feedback was collected to inform the Master Plan development process.

2.1 PUBLIC MEETINGS

Two major public events were held during the master plan process. Due to the Covid-19 pandemic, these events were held virtually. Both events were split into two days, focusing on different station areas each session. The first event was a charrette held in November of 2020, where the study team presented preliminary site planning concepts to the public to obtain feedback to shape the concepts and massing for each station area's urban design. These urban designs were then presented to the public at the second public outreach event - a design studio which took place in March 2021.

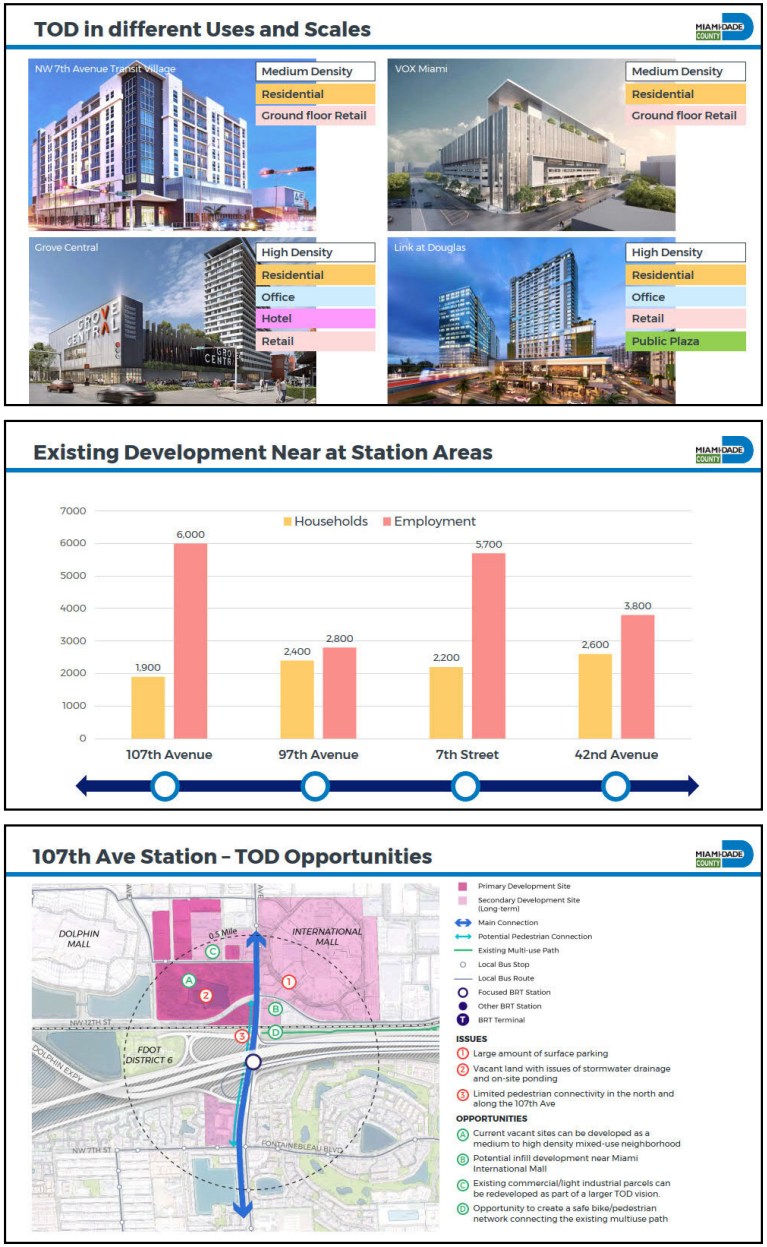
These meetings were promoted through public notices in the Miami Herald, social media posts on Miami-Dade County platforms including Twitter and Facebook, and through partner agency newsletters and social media. The meetings were included on the Miami-Dade County public calendar of events, and was further advertised on the East-West Corridor landing page on the Miami-Dade County website.

To adapt to the challenges presented by the Covid-19 pandemic, meetings were hosted on Zoom in addition to the Facebook Live stream typically provided for DTPW events.

2.1.1 CHARRETTE (NOVEMBER 18 & 19, 2020)

The charrette sessions began with a presentation by the project team summarizing the purpose of the project, existing conditions, and TOD opportunities within a half mile radius of the station sites. The crowdsource comment map was also introduced before the team held an extended Q&A addressing questions on the effect of the pandemic, changes to bus routes, impact to neigboring businesses, park & ride facilities, industrial land use, connection to FIU, affordable housing, municipal support, bike/ped access, and the timing of construction. The Facebook Live stream registered 697 views and 395 social media engagements over the course of the two November meetings.

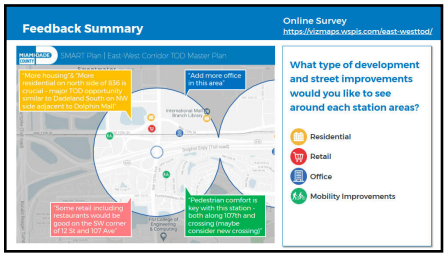
Figure 2-5: SLIDES FROM THE CHARRETTE

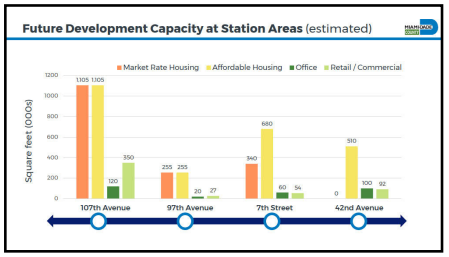


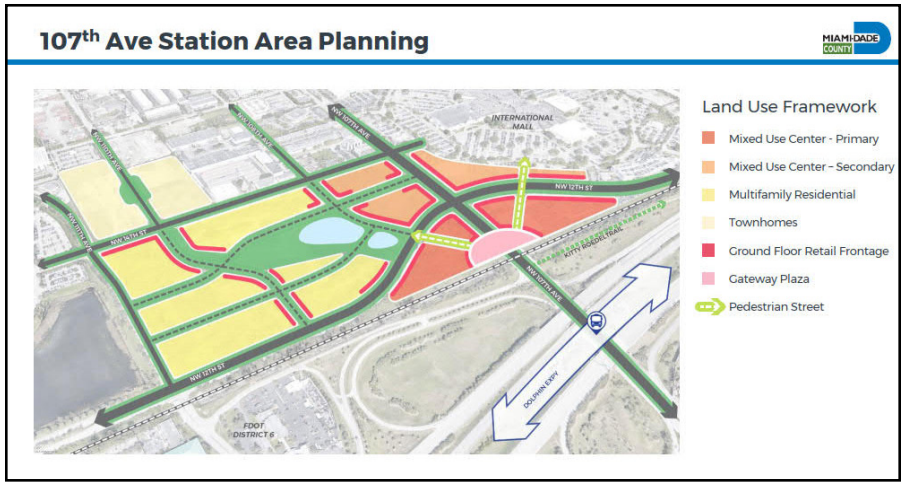
2.1.2 DESIGN STUDIO (MARCH 23 & 24, 2021)

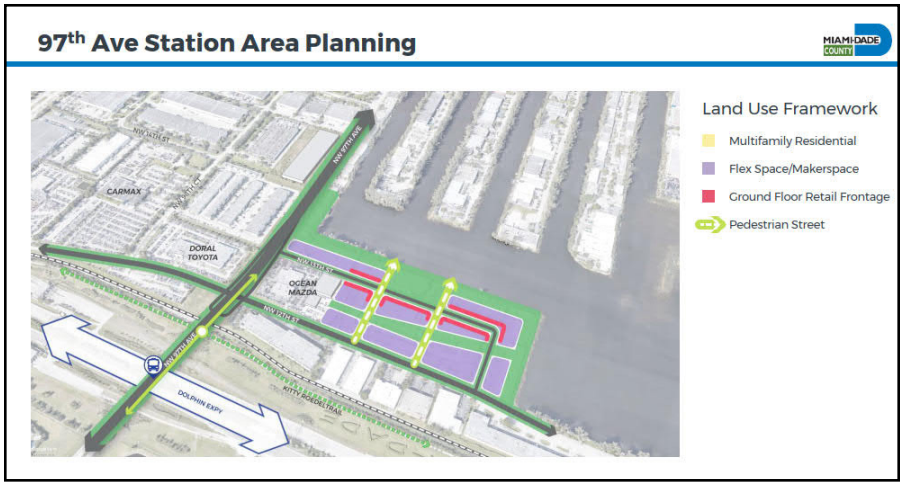
The design studio sessions featured a presentation by the project team that included a review of the economic factors affecting the development forecast, and proposed station area concepts which each included an open space network, land use framework, archetypal TOD examples, and site massing vision.

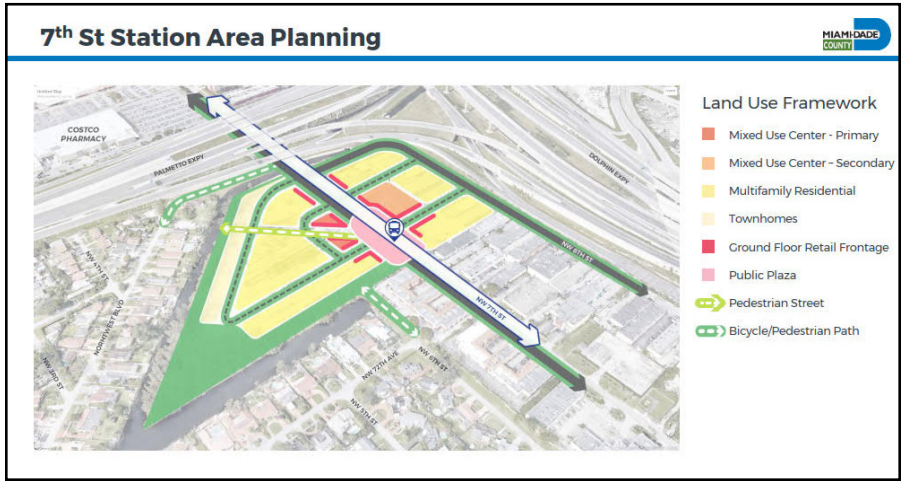
Figure 2-6: SLIDES FROM THE DESIGN STUDIO

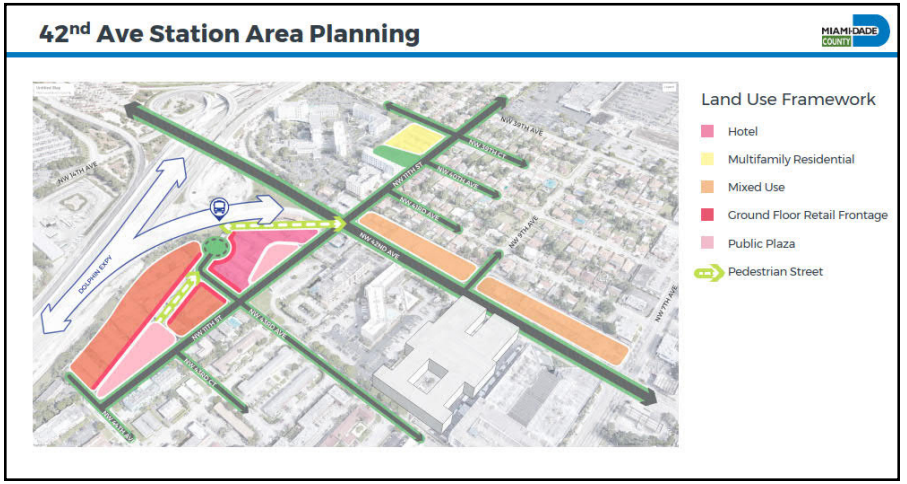












2.2 STAKEHOLDER MEETINGS

The study team engaged corridor stakeholders to ensure that proposed future developments would not produce a negative disruptive effect. The study team reached out to residents, businesses, property owners, neighborhood organizations, community-based groups, elected officials, and others to help identify challenges and solutions. Study Advisory Groups were also formed on the topics of Affordable Housing and Water & Wastewater Infrastructure.

2.2.1 COORDINATION WITH GOVERNMENT AGENCIES

To ensure that the TOD Master Plan is coordinated with other efforts throughout the county, the project team presented to the Citizens Independent Transportation Trust (CITT) as well as multiple Miami-Dade TPO Committees, including the Citizens' Transportation Advisory Committee (CTAC), Bicycle Pedestrian Advisory Committee (BPAC), and Transportation Planning Council (TPC). Comments from these committees were incorporated throughout the study.

2.2.2 AFFORDABLE HOUSING STUDY ADVISORY GROUP (SAG)

The affordable housing SAG was formed for the purpose of ensuring that the vision for this corridor includes a robust affordable housing strategy that is realistic and practical. Representatives from the following groups and agencies were invited to participate:

- Miami-Dade County Dept. of Public Housing and Community Development
- City of Miami Dept. of Housing and Community Development
- South Florida Community Development Coalition
- Miami Homes for All, Inc
- Miami-Dade County Housing Finance Authority
- Miami-Dade TPO
- Miami-Dade County RER

First Meeting (November 14, 2019)

This meeting was intended to help identify affordable housing initiatives that will assist housing partners to increase the supply of inclusive and attainable housing in the corridor, and reduce the combined burden of housing and transportation costs. After a brief presentation contextualizing the project, an extended dialogue was held about key issues, including: funding and financing strategies, parking needs, the relationship between government agencies and private developers, the effect of RTZ on affordable housing potential, and the relationship between affordable housing and circulator services. Another important point was the importance of coordinating the affordable housing vision with the water and wastewater advisory group, because water impediments can easily derail affordable housing projects by increasing development costs and disrupting the formulas used in complex project financing strategies.

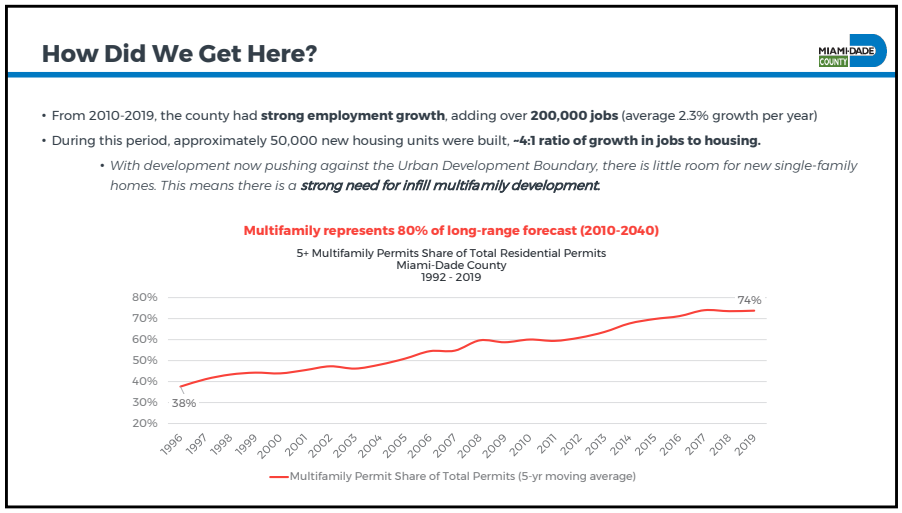
Second Meeting (February 9, 2021)

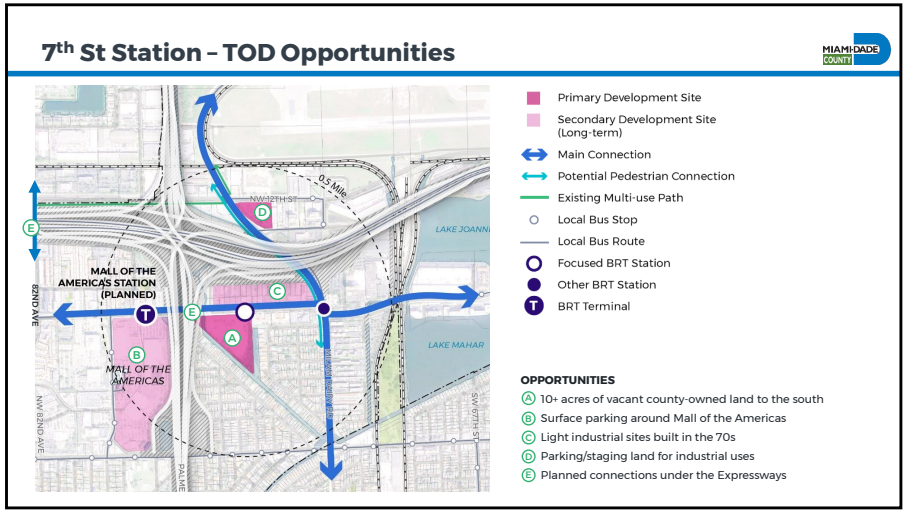
The project team presented the extensive work completed since the first meeting, including: economic profiles, distributions of existing residential development, potential funding and financing sources identified, potential TOD developer incentives, and the opportunity sites being designed. Conversation focused on the identification of the best strategies to pursue out of the many potentials identified.

Third Meeting (August 20, 2021)

At the third meeting of the Affordable Housing SAG, the project team presented a draft of the TOD Master Plan including station area plans to explore potential outcomes, assess flaws, and discuss potential revisions to improve and finalize the affordable housing recommendations.

Figure 2-7: SLIDES FROM AFFORDABLE HOUSING SAG MEETING 2





2.2.3 WATER AND WASTEWATER STUDY ADVISORY GROUP

The water and wastewater study advisory group was formed to support the development of an implementable vision and ensure that the proposed developments could operate with existing infrastructure, and if not, understand what upgrades would need to be made. To form this advisory group, the project team invited representatives from:

- Miami-Dade County Water and Sewer Department
- South Florida Water Management District
- Miami-Dade County RER - DERM
- Miami-Dade County RER - Planning
- Miami-Dade County Health Department
- City of Miami
- FDEP

First Meeting (November 14, 2019)

At the first meeting for the water group, the project team introduced the preliminary approach and goals for the study and water analysis task, obtained feedback, and developed a consensus regarding the approach and goals of the analysis. The project team presented the context of the corridor including the five transit modes and alternatives being considered in the PD&E, an overview of the stations being considered, and a presentation on the infrastructure and water & sewer service providers in the corridor.

Concerns were raised about the number of undersized mains along the corridor, and the scale of the planned developments since many areas are zoned for higher densities than existing infrastructure can support. A coordination strategy was established between the project team and WASD, including model runs once the proposed development plans were more advanced.

Second Meeting (February 9, 2021)

At the second meeting of the water group, the project team shared the vision for potential development capacities, the ratio of land uses in the station areas, and the overall vision which would need to be supported by the water and wastewater infrastructure. The project team also presented the work completed so far asesssing the existing and in-progress WASD infrastructure and private water projects in the corridor. Next steps were discussed to ensure that the project team would be able to conduct a model run testing the capacity of the system to handle the proposed developments.

Third Meeting (August 20, 2021)

At the third meeting of the Water & Wastewater SAG, the project team presented a draft of the TOD Master Plan including station area plans to explore potential outcomes, assess flaws, and discuss potential revisions to improve and finalize the water & wastewater recommendations.

2.2.4 PUBLIC STAKEHOLDER INTERVIEWS

Interviews were held between the project team and the following municipalities and government agencies via teleconference.

City of Miami

The study team presented the preliminary proposed recommendations for the 42nd Avenue station area to the City of Miami in March 2021. Discussion of the new flight path restrictions on the residential land uses near the station area helped formulate a strategy to address this loss of development potential. Relocating the station was considered, in light of new development plans that have been announced since the beginning of this study, and re-zoning was explored to support a more robust walkable neighborhood. The study team was also apprised of details regarding upcoming trail projects near the Miami River and Miami International airport. The study team was notified of a new City of Miami land development policy in urban cores which incentivizes developers to install bicycle facilities within ½ mile of their property in exchange of a density bonus.

City of Doral

The study team presented the preliminary proposed recommendations for the 107th and 97th Avenue station areas to the City of Doral in January 2021. Doral communicated that while there is support for a TOD, there is no political appetite for some of the zoning changes that typically come with TOD, specifically the removal of industrial land uses to make way for residential or office space, which usually brings more traffic. Doral expressed enthusiasm about connecting their robust trolley system to the planned transit station and TOD.

Florida Department of Transportation Distric Six (FDOT D6)

The study team presented the preliminary proposed recommendations for the 107th Avenue station area to FDOT staff including Head of Modal Development Nilia Cartaya. The 107th Avenue station is relevant to FDOT because the FDOT D6 office campus is located within the station area. Discussion also touched on the 7th Street station, as the land is currently owned by FDOT and used to stage construction materials for the I-395 signature bridge. At 107th Avenue, FDOT suggested pedestrian improvements along 12th street, and indicated that there were no plans for any changes at the FDOT campus which is shared with law enforcement. FDOT also suggested that any new bicycle and pedestrian facilities should be connected on both ends to existing or planned facilities, to ensure that no new infrastructure gaps were created. The study team was also advised to suggest a direct connection from 107th Avenue to the expressway to reroute traffic from NW 12th Street thus reducing the traffic on that street and facilitating the implementation of a road diet to add in bicycle facilities.

Miami-Dade Expressway Authority (MDX)

The study team presented the preliminary proposed recommendations for the 97th Avenue station area to MDX staff in January 2021. MDX

indicated that they are agnostic to any proposal outside of their roadway. When the former toll plazas at 97th avenue were propososed as a TOD opportunity site, MDX indicated that while they are not pursuing any non-roadway uses, they were not necessarily opposed to redeveloping the former toll plazas in concept. MDX would need to see more advanced visions before deciding if they could support it. Any development must not diminish capacity or impact the ability to widen the roadway or add an interchange. MDX also informed the project team that an interchange was planned for NW 97th Avenue as a part of their unfunded priorities list.

Miami International Airport (MIA)

The study team presented the preliminary proposed recommendations for the 42nd Avenue station area to Miami International Airport staff, who reinforced the teams understanding of the new land use restrictions under the airport flight path. MIA staff also indicated that the airport employee parking lot was not an opporunity site for this study.

Miami-Dade County Department of Parks, Recreation, and Open Spaces (PROS)

The study team presented the preliminary proposed recommendations for all four station areas to County PROS staf in January 2021. PROS staff indicated that they had no projects in these areas, but indicated that there was a DTPW trail project west of the turnpike, the Central West Basin, a linear park and trail. Conversation also touched upon the Ludlam Trail, which at it's northern terminus comes near the 7th Street station area, but connecting over 72nd avenue was identified as a major challenge.

Miami-Dade County Department of Regulatory and Economic Resources (RER)

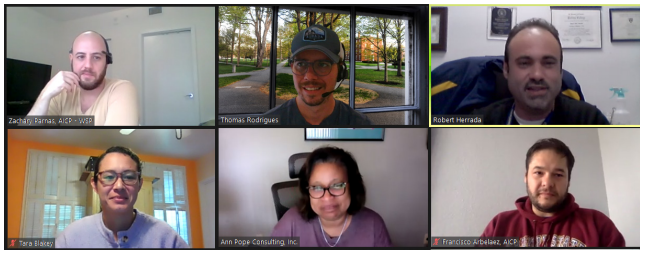
Multiple meetings were held between the study team and RER staff, with a particular focus on the land use and zoning strategy best used to achieve the vision of the master plan. Recently, the county has enacted multiple changes to county regulations regarding Urban Centers and the Rapid Transit Zone (RTZ). RER provided direction regarding the procedural steps required to implement RTZ zoning, as well as the process of implementing a planned urban center through a small area plan on unincorporated land. RER also provided advice regarding the use of Transferrable Development Rights (TDRs) to address issues in the 42nd Avenue station area.

City of Sweetwater

The study team presented the preliminary proposed recommendations for the 107th Avenue station area to Sweetwater Director of Operations Robert Herrada in January 2021. Mr. Herrada expressed that an appetite exists for the development of a mixed-use entertainment district on the opportunity site identified in this study. Sweetwater recently adopted an ordinance to encourage workforce housing, and was happy to

support the TOD effort, including through the extension of trolley service. Mr. Herrada recommended numerous strategies to enhance integration with the community, such as freebee service and partnerships with the nearby Florida International University.

Figure 2-8: VIRTUAL INTERVIEW WITH CITY OF SWEETWATER STAFF



2.2.5 PRIVATE STAKEHOLDER INTERVIEWS

Dolphin Mall

The study team presented the preliminary proposed recommendations for the 107th Avenue station area to Dolphin Mall staff, including General Manager Pete Marrero, in January 2021. Dolphin mall was sold to Simon Property Group in 2020. Discussions on the accessibility of the mall revealed that Dolphin Mall was recently the #1 destination for Uber in all of Florida, so they see transportation connections as a driver of additional business, and a connection to the cruise ports would be ideal. The mall supports both the corridor and TOD master plan in principle, but recognize that currently more than 95% of customers and approximately 80% of employees arrive via private vehicle.

Doral Toyota

The study team presented the preliminary proposed recommendations for the 97th Avenue station area to Doral Toyota staff in February 2021. Part of this meeting involved an exploration of different possibilities for future redevelopment of the car dealerships fronting 12th street west of 97th avenue. This would require creative solutions to avoid negative impacts to the existing businesses, such as new mixed-use buildings, shared parking structures, and/or relocation to nearby land with superior visibility such as the nearby abandoned toll plazas. Doral Toyota staff shared some of the details of their operations, and the importance of their parking capacity to maintain the health of their business. While they were open to the idea of moving to a parking structure, the cost was a concern and the ability to share the cost would be ideal. Staff also shared that the pandemic had a positive effect on business, and that people still have a strong preference for buying cars in person as opposed to online or through a home test-drive process.

Doral View Apartments

The study team presented the preliminary proposed recommendations for the 97th Avenue station area to Doral View Apartments staff in February 2021. Staff indicated that the complex is closed to bicycle and pedestrian access, but still supports the East-West Corridor.

Esserman Automotive

The study team presented the preliminary proposed recommendations for the 97th and 107th Avenue station areas to Esserman Automotive staff in February 2021. The conversation explored many similar points to the meeting with Doral Toyota. Esserman indicated that with the majority of profits coming from the service department, it is important to consider in any relocation discussion that a dealership needs more than a parking garage and showroom. Staff also expressed concerns with relocation related to zoning and special approvals needed for a car dealership. Traffic on 12th street was indicated to be a major concern, especially during rush hour, impacting their ability to conduct business. While they support a TOD master plan, they feel it is important not to induce additional traffic.

International Mall

The study team presented the preliminary proposed recommendations for the 97th and 107th Avenue station areas to International Mall staff in February 2021. Simon Property Group now owns both malls in the area, and may be open to redevelopment since they see themselves as a real estate company that specializes in commercial, rather than simply a shopping mall operator. Staff informed the study team of the unique ownership structure of International Mall, where the anchor stores own their own land, which may complicate redevelopment despite the Mall ownership being amenable to it.

Planet Dodge

The study team presented the preliminary proposed recommendations for the 97th and 107th Avenue station areas to Esserman Automotive staff in February 2021. The conversation explored many similar points to the meeting with Doral Toyota and Esserman Automotive, as the dealerships in this area all have a positive relationship with each other. Planet Doge liked the idea of a land swap arrangement to relocate to the former toll plazas on SR-836, as direct highway access is seen as a major positive, and the traffic on 12th Street is problematic enough that they are interested in moving away from it.

2.3 PUBLIC CROWDSOURCE COMMENT MAP

There were a total of 15 comments from the public on the crowdsource comment map, with an overall focus on pedestrian experience and the type of functions most desired in each station area. A summary of the comments is organized by station area below.

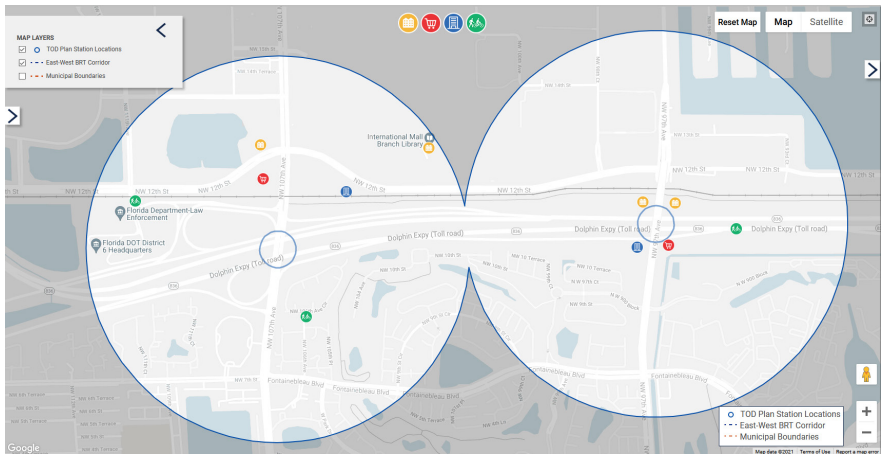
NW 107th Avenue

This station area had 6 comments, including the need to focus on the pedestrian experience, and expressing the need for a wide variety of functions (housing, office, retail, restaurants). Other comments drew attention to the FDOT HQ west of the station, and the potential similarities between this station area and the Dadeland South Metrorail station area.

NW 97th Avenue

This station area had 5 comments, indicating the need for housing on the north side, and office & retail on the south. One comment stated "the 97th Bridge is quite long - will need upgraded ped environment"

Figure 2-3: PUBLIC COMMENTS FOR 107TH AND 97TH AVENUE STATION AREAS



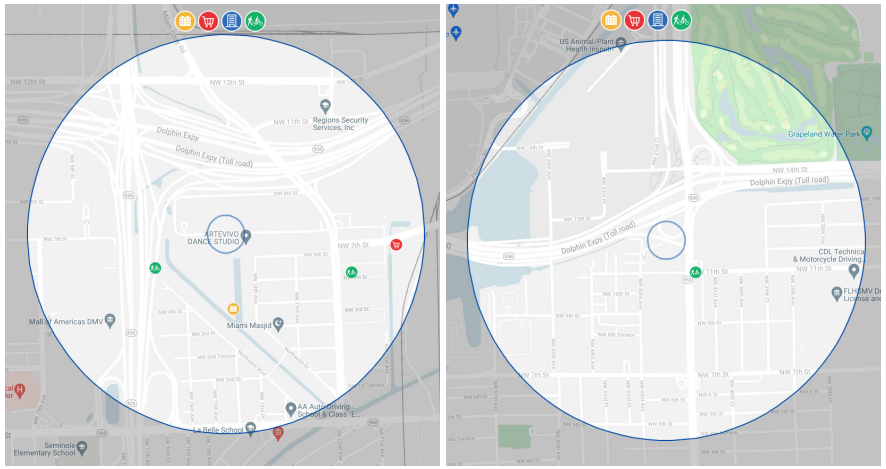
NW 7th Street

This station area had 4 comments, drawing attention to the pedestrian experience along the connection beneath SR826 as well as the potential and challenges associated with integrating this area with the area east of 72nd Avenue.

NW 42nd (LeJeune) Avenue

Just one comment, left by an anonymous member of the public, stated that "Mobility Enhancements are key here", because of the high traffic volumes on 42nd Avenue and the need to connect the transit station to hotels, and future developments east of 42nd.

Figure 2-4: PUBLIC COMMENTS FOR 7TH STREET AND 42ND AVENUE STATION AREAS



2.4 SUMMARY OF FEEDBACK

The feedback gathered from the public, private stakeholders, and government representatives collectively form an impression of what the local community wants from their local TOD. This impression has informed the design of this master plan, based on the following take-aways:

- The overall strategy should focus on cooperation with municipalities to achieve the desired regulatory environment which encourages TOD. If challenges facing the local process impede development, the RTZ and Planned Urban Center designation provide effective tools for the county to establish sufficient minimum development densities for TOD.
- Miami-Dade county needs affordable housing badly, but it must be produced in coordination with other infrastructure elements like water and wastewater, and executed in an efficient way that does not bring significant new traffic to already congested areas. With the current market rate housing development environment, incentivization may be neccessary to ensure the density of affordable housing desired at many stations
- At 97th Avenue, some of the car dealerships are amenable to relocating to the former toll plazas, but only if it is a collaborative effort which is carefully executed to maintain continuity of business functions. Challenges are most likely to come from MDX and engineering a connection to the 97th avenue bridge.
- The 97th and 107th avenue TOD's need to be especially concerned with peak period traffic on NW 12th street, as it is already problematic.
- International Mall is open to the possibility of redevelopment, but is not looking to actively pursue it.
- Industrial land uses should not be reduced, and if they are they should be expanded nearby.
- The planned developments will push the existing water and wastewater system near it's capacity in some locations, so it is likely that an expansion to the system will be neccessary for major developments catalyzed by the planned TODs.
- A Transfers of Development Rights (TDR) strategy is needed to address the residential area southwest of the 42nd Avenue station, due to new airport flight path restrictions, otherwise this area is likely to have a negative effect on the TOD planned for this station area.
- Both Doral and Sweetwater are supportive of their local TODs, and look forward to connecting their municipal transit systems to the stations.
- While the location selected for the 42nd Avenue station was a logical choice for the PD&E study, adding the consideration of TOD capacity has presented other options for the station location which may reap significantly more benefits while serving the same customers. Relocating the station to 11th street on the east side of 42nd avenue would require a change to the bus route, but this may improve travel times by avoiding highly congested intersections and problematic turning patterns. The benefits of this strategy will be highly dependent on other considerations such as the redevelopment of the large strip mall at 37th Avenue and 7th Street, and therefore may require additional steps.

3 CORRIDOR LAND DEVELOPMENT OVERVIEW

3.1 SOCIOECONOMIC CONDITIONS

3.1.1 INTRODUCTION

The East-West Corridor is so named because it is centered on the Dolphin Expressway (SR-836), the primary East-West thoroughfare for the county. The Dolphin, as it is locally known, connects residents from the western edge of Urban Development Boundary (UDB) to major destinations such as South Beach, Downtown Miami, and Miami International Airport, connecting with other major highways such as I-95, The Palmetto Expressway (SR-826), and Florida's Turnpike along the way. This tollway has improved the connectivity of Miami-Dade County, but the addition of rapid transit service will improve the equity of transportation options being delivered to county residents along this critical roadway.

The corridor area is primarily industrial and commercial to the north, and residential to the south, with a diverse economic base. Forecast models predict significant population and employment growth in Miami-Dade County, and with the geographic limitation of the UDB, this means densification and redevelopment of the existing urbanized area. This corridor is forecast to grow more than the county average, and to minimize roadway congestion impacts this development should be concentrated around a robust transit system that enables and empowers residents to choose a car-free lifestyle.

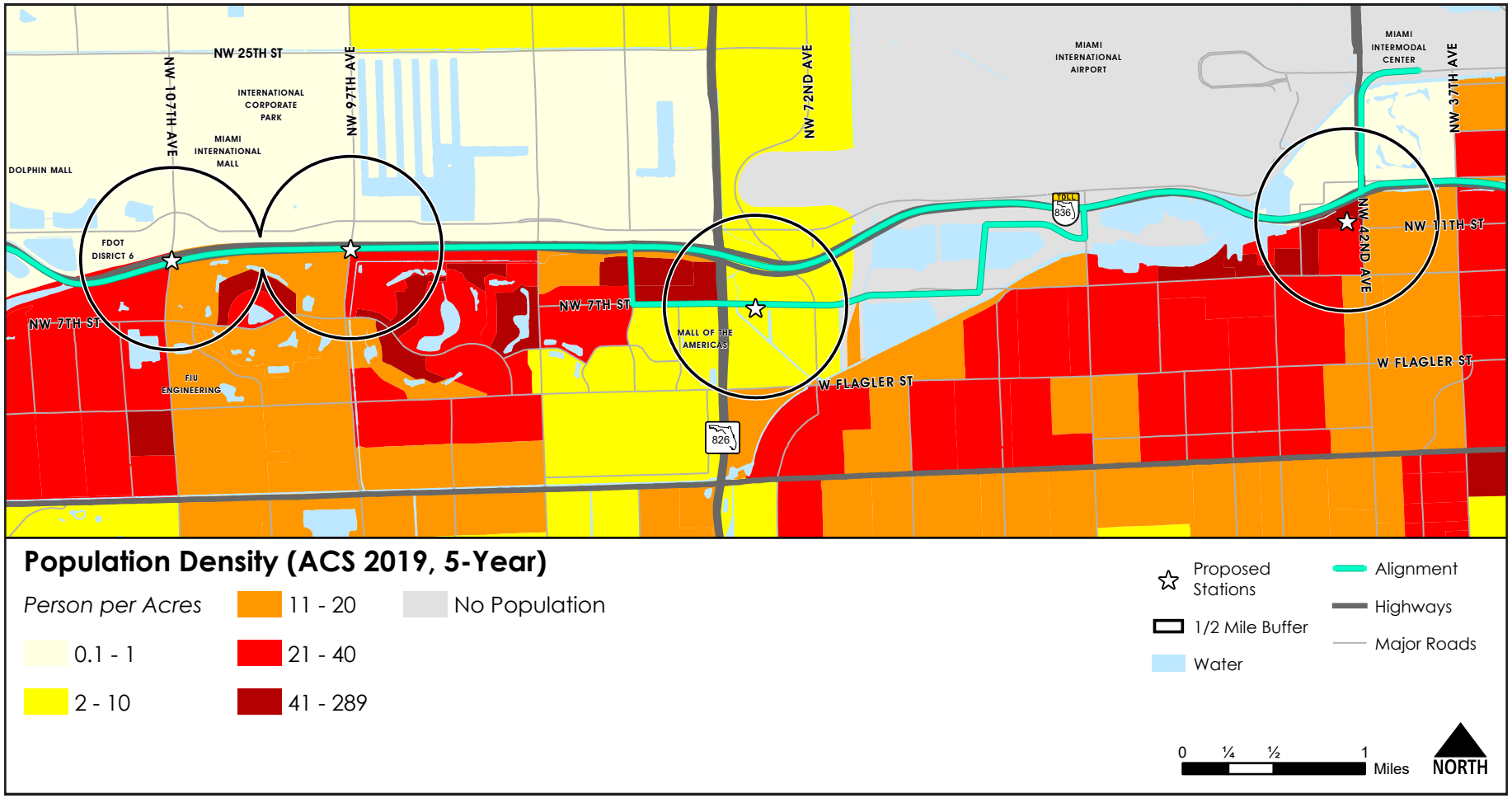
Population Density

Figure 3-1 shows the distribution of population density throughout the corridor. While there is virtually no population north of of SR-836, the residential areas in the south side of the corridor are dominated by low-to-medium rise apartment complexes with a density of more than 10 people per acre. There are several areas over 40 people per acre, and a limited number of single-family homes as well. South of the half mile buffer area, single family housing is the dominant land use. Overall, a pattern can be seen of higher density near the corridor, with decreasing density as you move southward, showing that regardless of mode, people value living close to transportation.

7th street station hosts both the highest and lowest residential density in the study area. The station is located in an industrial pocket south of SR-836, which is itself surrounded by a single family residential neighborhood. However, to the northwest of this industrial area is one of the highest density residential areas in the corridor, an apartment district located north of the Mall of the Americas.

Population density near the 42nd Avenue station also appears high, but recent changes in airport flight path regulations have limited the possibility for residential redevelopment in the area, so over time this density is likely to be lost unless development rights can be transferred to other parcels within the station area.

Figure 3-1: POPULATION DENSITY



Median Household Income

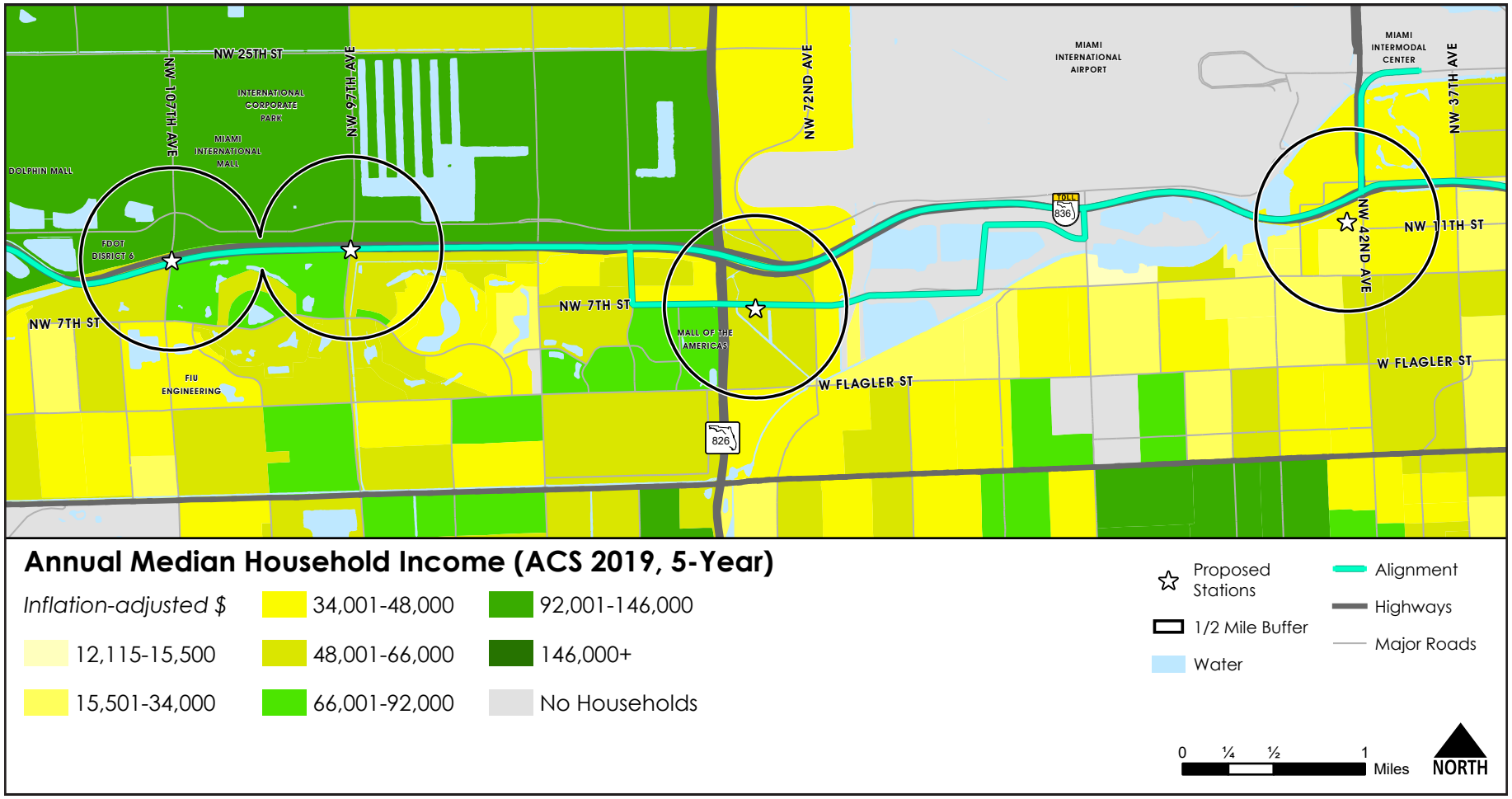
Figure 3-2 shows the distribution of household incomes throughout the corridor. Incomes along the corridor are diverse, with a trend towards higher income households to the west, away from the airport. Overall, the corridor has a lower median income than the average for Miami-Dade County, which was $51,347 in 2019 according to US Census data.

While the western sites at 107th and 97th Avenues are higher income areas, Figure 3-2 is somewhat deceiving due to the lack of population north of the corridor to NW 25th Street. Regardless, the populated area south of the corridor generally consists of the households with the highest income along the corridor.

The area around the 7th Street station consists of single family households to the south and east with an average income between $48,000 and $66,000 per year, and a low-rise apartment district to the west with average incomes between $34,000 and $66,000 per year.

There is a high concentration of households earning less than $48,000 per year around the 42nd Avenue station. This is most likely a result of the airport flight path directly overhead reducing the desirability of the land, rather than local social or economic forces.

Figure 3-2: MEDIAN HOUSEHOLD INCOME



Transit Propensity

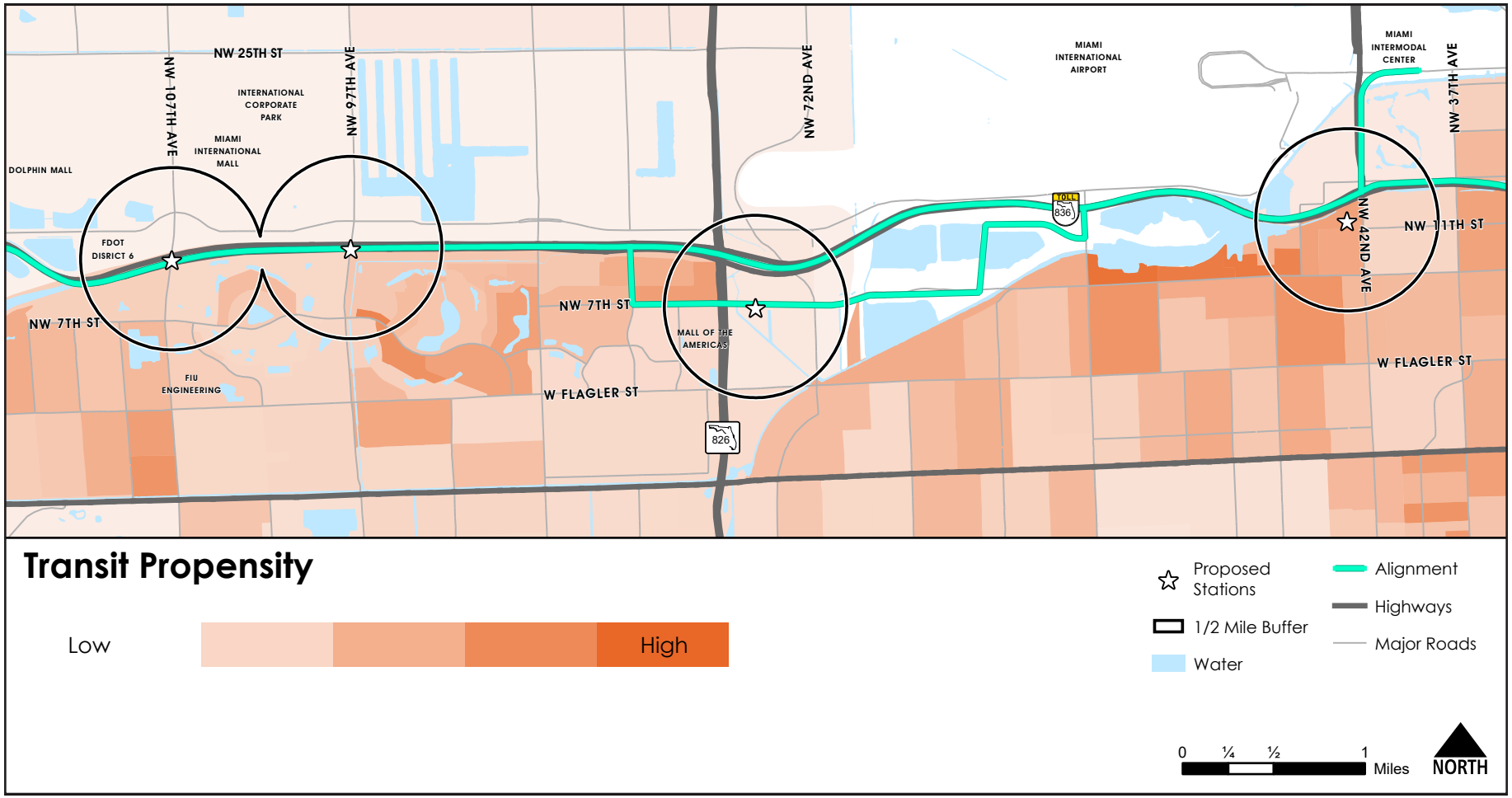
The transit propensity measure combines multiple individual categories which have been found to correspond with increased transit use, regardless of causation. These categories are:

- Population density
- Low-income Households (<$25,000 Annual Income)
- Zero-vehicle households
- Minority percentage
- Disabled population
- Age distribution (those aged under 18 or over 65 both use transit more)
- Gender balance (women use transit more)

The concurrence of high scores in multiple categories from this list indicates an area which has a high propensity for transit use, meaning that it is likely to produce higher transit ridership than the county average. Many of these categories also indicate populations which would greatly benefit from an increase in TOD, particularly when it includes robust affordable housing.

In the residential area south of SR-836, the transit propensity ranges from medium to high, with the lowest propensity area being the residential neighborhood to the south and east of 7th Street station, and the highest propensity area being located west of the 7th Street station. Transit Propensity along the corridor is mapped in Figure 3-3.

Figure 3-3: TRANSIT PROPENSITY



Forecast Population Change

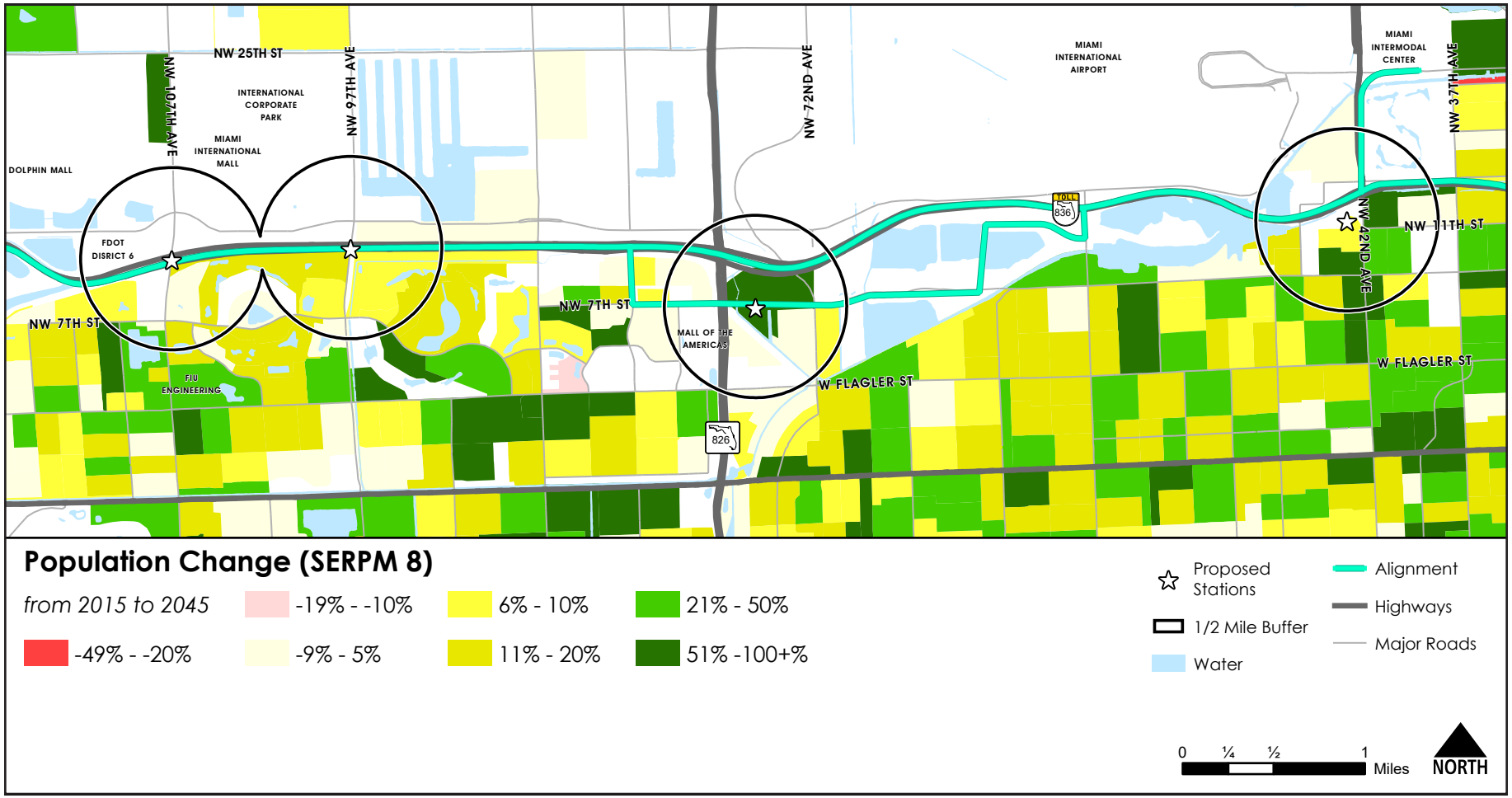
The population growth forecast is based on existing conditions including existing land use and zoning regulations. The algorithms used to develop this forecast can not take into account the recommendations which emerge from a study such as this, and create new nodes of population growth where land use regulations are changed to allow for modern mixed-use TOD.

The forecast predicts significant population growth throughout the southern half of the corridor, but an in-depth analysis of the results shows that this is fairly evenly distributed, whith no new major centers of development.

The area south and west of 42nd Avenue station which shows population growth will be negated due to new airport flight path restrictions.

The area around the 7th Street station appears to show a large percentage of growth, but this is due to the low existing population of the relatively large area in question. Figure 3-4 Depicts the foretasted population changes along the corridor.

Figure 3-4: FORECAST POPULATION CHANGE



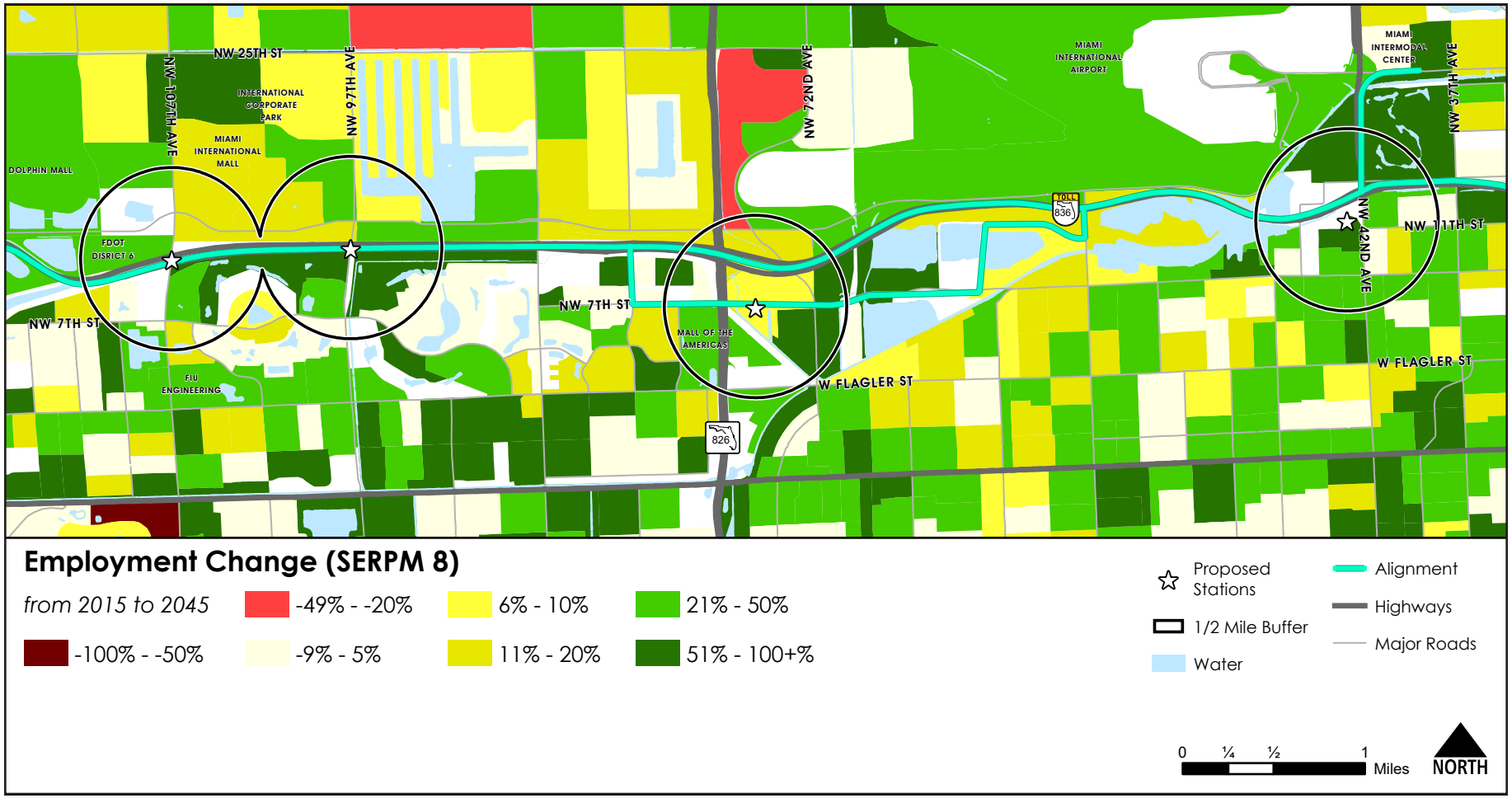
Forecast Employment Change

Significant employment growth is expected along the corridor, with major growth in all station areas, by 2045 (the forecast year).

The area north of the corridor in Doral is currently a high employment industrial area, and it is expected to grow by up to 25%. While we see similar growth percentages in the south, the lower existing employment rate means that this percentage indicates a smaller number of actual jobs.

The most significant employment growth is forecast near the 42nd Avenue station, based on redevelopment which was planned at the time this forecast model was created. While one of those projects has since been completed, multiple vacant surface parking lots along 42nd Avenue are now awaiting redevelopment which is expected to bring new employtment opportunities. Figure 3-5 depicts the forecasted employment change along the corridor.

Figure 3-5: FORECAST EMPLOYMENT CHANGE



3.2 ZONING AND LAND USE

This section addresses land use and zoning regulations on the East-West Corridor. It evaluates comprehensive master plans and zoning codes, identifying impediments to TOD which need to be rectified, and existing opportunities for robust TOD.

3.2.1 UNINCORPORATED MIAMI-DADE COUNTY LAND USE AND ZONING

The current development patterns along the East-West Corridor are predominantly auto-centric. Buildings are generally low rise, infrequently taller than four (4) floors, and are served by street-facing surface parking lots. Land uses north of the Dolphin Expressway are overwhelmingly industrial and commercial, while land use on the south side of the corridor is primarily residential, with supporting businesses primarily located on Flagler Street and SW 8th Street.

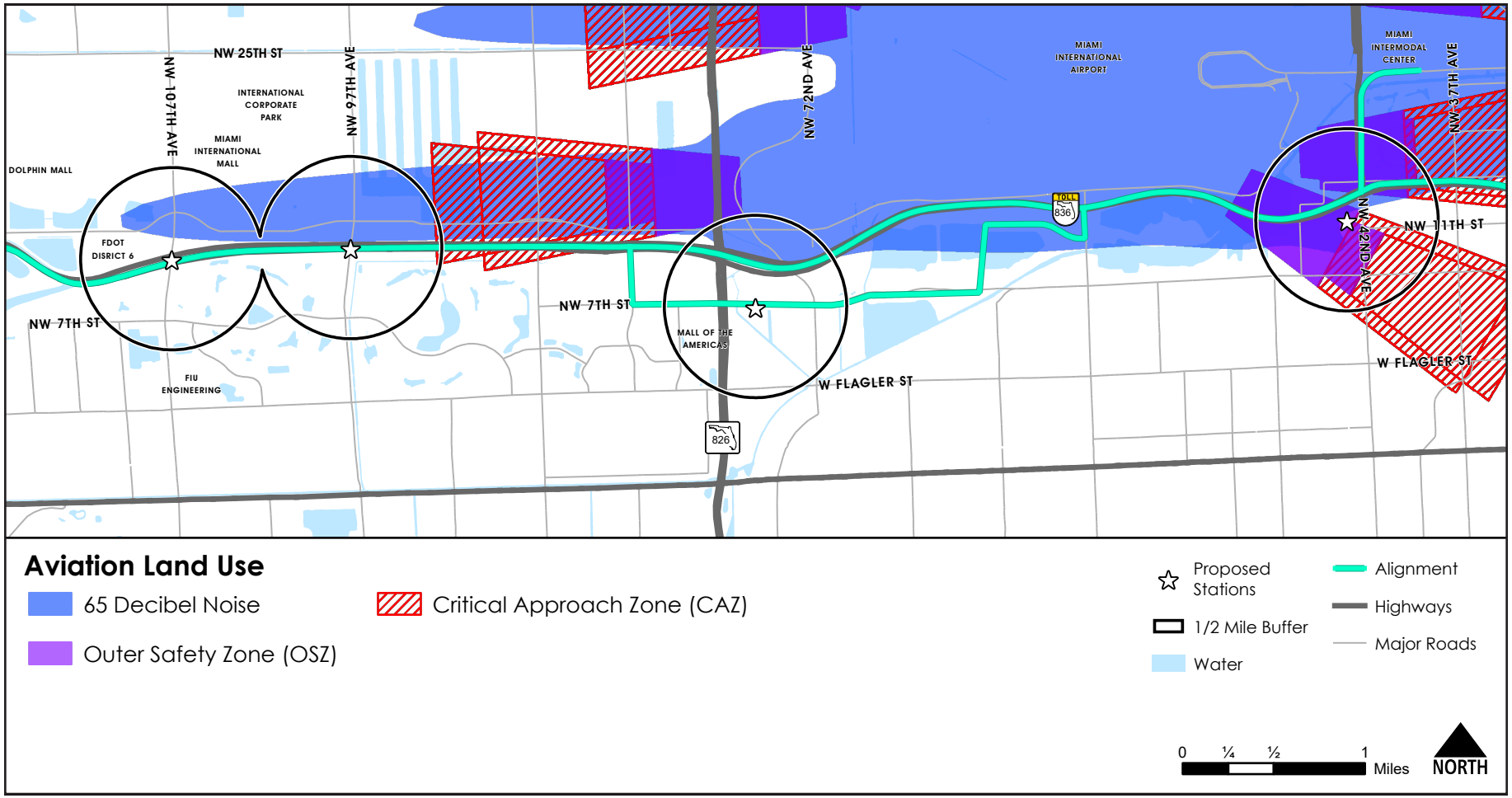
The residential area consists of single-family homes and low-rise multi-family complexes of medium-densities that adhere to suburban auto-dependent typologies. Many of the developments in the Fountainbleau area south of 97th Avenue Station were constructed around man-made lakes and golf courses, which disconnects them from the overall roadway network. This limits pedestrian accessibility and concentrates vehicular flows to major arterials.

Just as residential development is limited to the south side, the north side of the corridor is dominated by one of the County's largest industrial warehouse districts in the Doral industrial area, and two regional shopping malls. Combined with the Blue Lagoon office district east of 7th Street Station, and Miami International Airport north of 42nd Avenue station, this corridor provides access to some of the largest employment centers in the region. The proposed link to Metrorail at the MIC will provide links to two additional core employment centers in Downtown Miami, and the Health District.

Miami International Airport (MIA)

The East-West Corridor runs less than 500 feet South of the Miami International Airport. The Federal Aviation Administration (FAA) and the Miami-Dade Aviation Department (MDAD) provide land use regulation and zoning codes in the areas surrounding airports within Miami-Dade County. Airport zoning and land use objectives are to promote compatible uses, protect the airspace and economic benefits and capacity of aviation facilities as well as ensure the safeguarding of public health, safety and welfare. The airport zoning prohibits certain uses depending on their proximity to the airport, including residential uses, places of worship, public assembly, new educational facilities, uses that may attract wildlife, and uses that may impact airport safety, operations and communication.

Figure 3-6: REVISED AIRSPACE REVIEW AREA



On November 19, 2019, the Miami-Dade County Board of Commissioners adopted Ordinance 19-112, which modified Chapter 33 of the County Code and altered various airport restriction areas.

Section 33-334 delineates the approval process for permanent (cell towers, monopoles, building) and temporary structures (construction cranes), as well as temporary events and activities impacting airspace (tethered balloons, unmanned aircraft, laser & fireworks, kites).

Miami-Dade County Comprehensive Development Master Plan (CDMP)

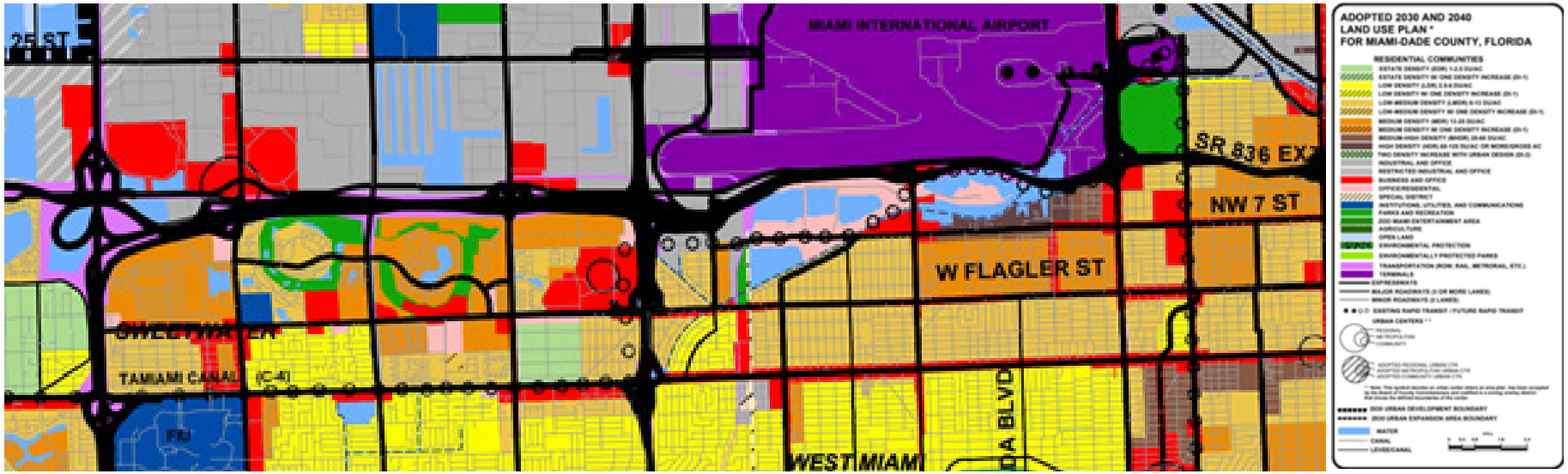
The Miami-Dade County CDMP regulates the future land use of the county. Required by state statutes, the CDMP lays out a vision for how the County intends to develop, which lands will be protected, and how it will make decisions pertaining to the environment, transportation, and other matters of county-wide interest. The adopting language in the County Code of Ordinances, states that the CDMP helps ensure that "development within a reasonable radius of rapid transit terminals should be considered as having Countywide impact and managed consistent with overall Countywide goals." Moreover, transportation facilities, which include the SMART corridors, should "contribute to the enrichment of the physical environment of Miami-Dade County."

Urban Centers

Urban Centers are a special land use designation intended to allow for enhanced development rights and unique localized zoning regulations in locations of special significance. They are regulated by the Standard Urban Centers Distric Regulations, Article XXXIII(K) of the Miami-Dade code of ordinances. Urban Centers are designated on the CDMP Land Use map, to be one of three sizes. From largest to smallest they are: Regional Urban Centers, Metropolitan Urban Centers, and Community Urban Centers.

After designation in the CDMP, these urban centers are eligible to develop their own small area plans, which include customized form-based zoning regulations that fit the uniqe challenges and opportunities of each location.

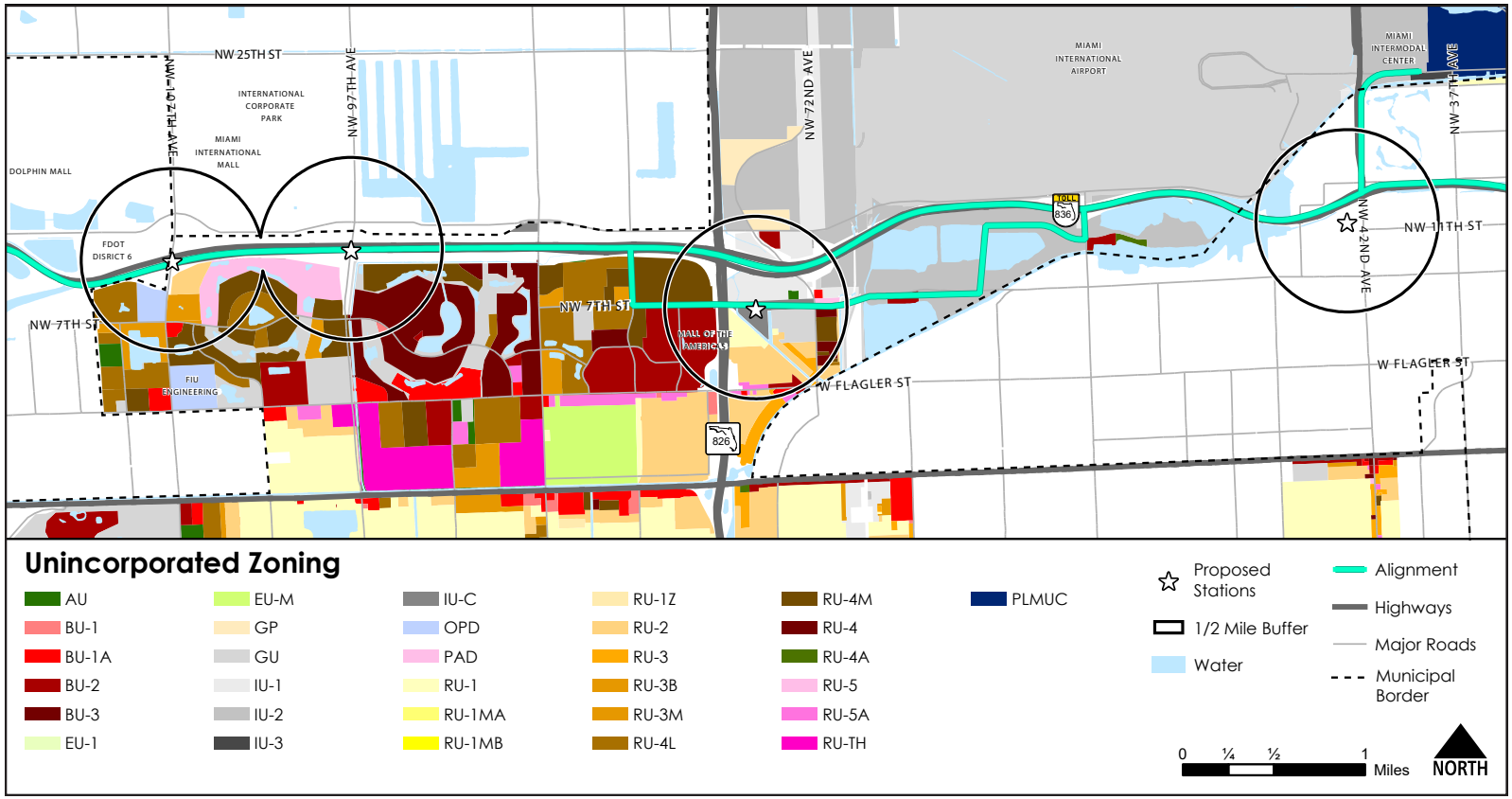
Figure 3-7: CDMP LAND USE AND URBAN CENTERS



Unincorporated County Zoning

The Miami-Dade County Zoning Code applies to the area around the 7th street station, as well as the southern half of the 107th and 97th avenue station areas. The western sites contain varying intensities of residential zones, but the area around the 7th street station contains a more diverse assortment of uses, including business, industrial, and residential zones. The zoning category most relevant to this corridor is the Rapid Transit Zone (RTZ), which can be applied to any parcel within a half mile of the rapid transit system. The RTZ allows for high intensity development of mixed uses, and grants additional density bonuses to Urban Centers. These Zones have special guidelines that govern the site design, building mass, permitted uses, parking, and circulation of development within their bounds. The County has also adopted new guidelines in the CDMP surrounding the SMART Plan Corridors that further support TOD.

Figure 3-8: UNINCORPORATED ZONING



3.2.2 MUNICIPAL LAND USE AND ZONING CODES

The East-West Corridor is governed by multiple entities - it primarily operates on SR-836, which is owned by the Miami-Dade Expressway Authority (MDX), crosses through four different municipalities – Unincorporated Miami-Dade County, the City of Doral, the City of Sweetwater and the City of Miami. All have different policies related to the type and intensity of development within their boundaries, and different levels of regulatory readiness for implementation of TOD. In this section, we will explore each municipalities individual land use regulations and zoning codes through the lense of TOD.

The NW 107th Avenue station area includes land within the Unincorporated County and the Cities of Doral and Sweetwater. The NW 97th Avenue station area is governed by Doral in the north, and unincorporated Miami-Dade County in the south. The Wedge station area lies entirely within unincorporated Miami-Dade County, but the station site itself is currently owned by FDOT and being used to stage construction of the 395 Signature Bridge. The NW 42nd Avenue/LeJeune Road station lies within the City of Miami, with part of the area owned by Miami International Airport falling within Unincorporated Miami-Dade County.

Figure 3-9 depicts the municipal jurisdiction limits on the East-West Corridor. Figure 3-10 shows the municipal zoning which will be explored in detail in the following sections.

Figure 3-9: MUNICIPALITIES ALONG THE EAST-WEST CORRIDOR

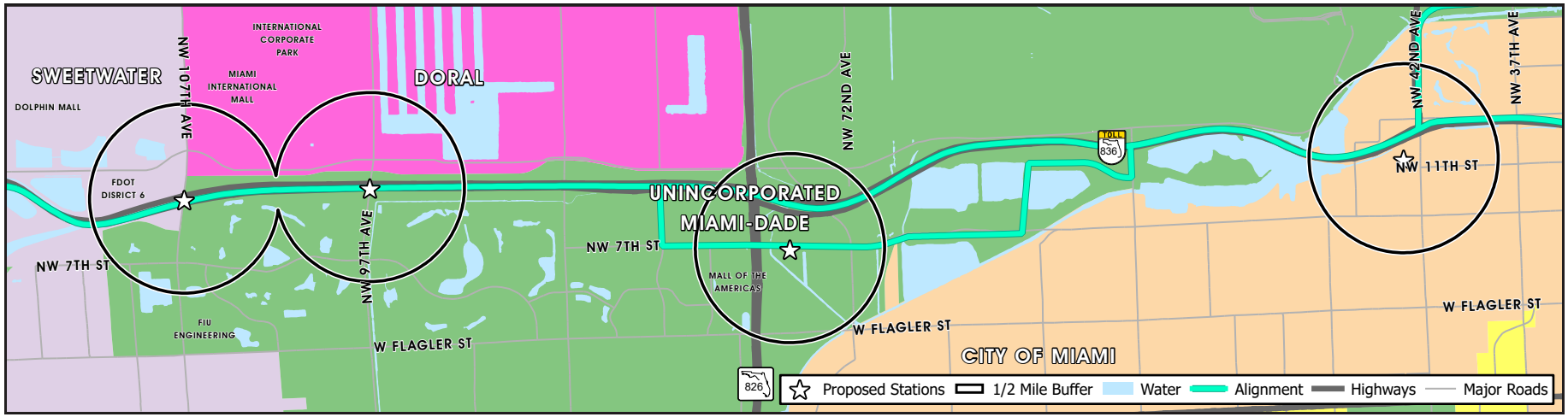
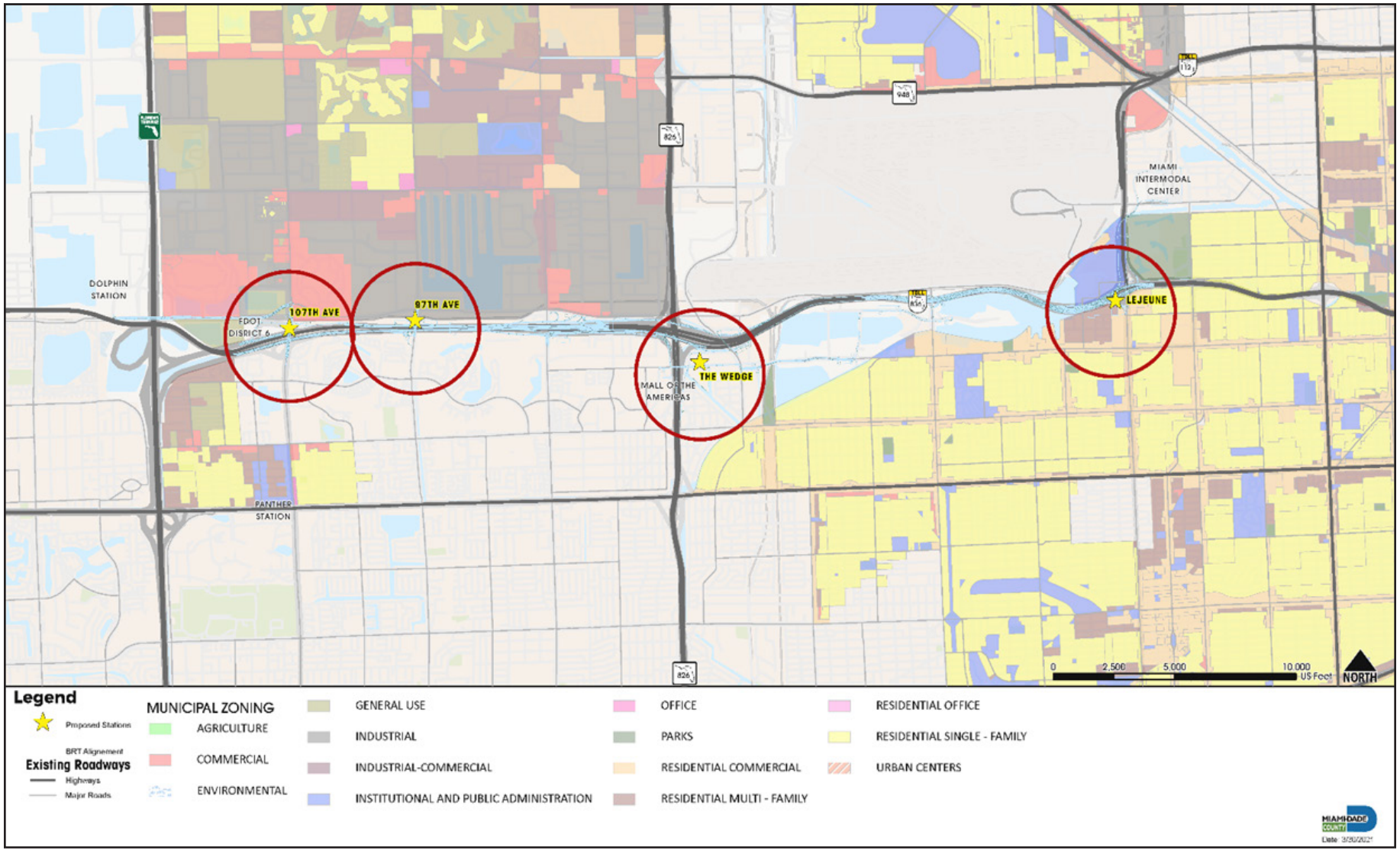


Figure 3-10: MUNICIPAL ZONING



City of Miami

The City of Miami operates a municipal transit system which will consist of citywide trolleys and the elevated Metromover which operates throughout Downtown. These services provide direct links to the major attractors in the city including the hospitals near NW 14th Street, the Miami International Airport, Bayside Marketplace/Bayfront Park, Government Center, Wynwood and more, as well as indirect links to major attractors outside of the city such as the University of Miami, Dadeland Mall, Fort Lauderdale and West Palm Beach.

City of Miami Land Use

The City of Miami future land use is guided by the Miami Comprehensive Neighborhood Plan (MCNP). The plan contains 14 elements: Future Land Use, Housing, Sanitary and Storm Sewers, Natural Groundwater Aquifer Recharge, Potable Water, Solid Waste Collection, Transportation, Ports, Aviation, and Related Facilities, Parks, Recreation and Open Space, Coastal Management, Natural Resource Conservation, Education, Capital Improvements, and Intergovernmental Coordination.

City of Miami Zoning - Miami 21

The City of Miami was one of the first major metropolitan areas in the country to adopt form-based zoning, with its landmark Miami21 zoning code and city atlas. Form-based zoning replaces traditional function-based zoning, which defines areas based on what function IS allowed to take place there, and seperates residential areas from commercial, industrial, and other functions. Form-based zoning instead primarily focuses on regulating the shape of the built environment, with specific functions disallowed when neccessary. The specific zones follow the pattern of the rural-to-urban transect, from T1 (rural) to T6 (urban core) as shown in Figure 3-11.

The area around the 42nd Avenue station is T5-Residential, and T6-8 Office, with a small area of T3-Residential to the southeast.

T5, the Urban Center Zone consists of higher density Mixed-Use building types that accommodate retail and office uses, rowhouses and apartments. T6, the Urban Core Zone consists of the highest density and greatest variety of Uses, including Civic Buildings of regional importance.

Figure 3-11: ARCHETYPAL RURAL TO URBAN TRANSECT AS SHOWN IN MIAMI 21 CODE

Doral

The East-West Corridor runs along the entire southern border of the City of Doral, one of the newest cities in Miami-Dade County. Doral has experienced 33% population growth since the 2010 census. Residential development has concentrated towards the northwest, while the southern and eastern edges of the city have retained its industrial character. Development is ongoing in the mixed-use Downtown Doral area.

Doral Land Use

Land Use in Doral is governed by Chapter the Land Development Code and the City of Doral Comprehensive plan, and the Future Land Use Map contained within. This document is intended to provide general goals and a vision for the ultimate development of the city.

The area around the NW 107th Avenue station within Doral is designated for Business land use. This category allows for retail, wholesale, personal and professional services, commercial and professional offices, hotels, motels, hospitals, theaters, medical buildings, nursing homes, entertainment and cultural facilities, amusement and commercial recreation establishments and university and college facilities.

The area around the NW 97th Avenue station within Doral is designated for Industrial land use. This category allows for industries, manufacturing operations, warehouses, mini-warehouses, office buildings, flex space showrooms, distribution centers, merchandise marts, public facilities, hospitals, medical buildings, hotels, convention facilities, restaurants, banks, university and college facilities and hotels.

The parcels east of NW 97th Avenue and abutting NW 13th Street have an addition Land Use overlay of Community Mixed Use (CMU) applied to them. The CMU Overlay seeks to provide flexible land use provisions to activate Doral's downtown and other locations. It allows for retail, service, office and residential uses as well as governmental and non-profit offices, park, public and recreational facilities.

Doral Zoning

The City of Doral has developed their own form-based zoning code, similar to Miami 21. This code is governed by three primary documents: the Land Development Code, Illustrative Zoning Guidebook, and the Official Zoning Map.

The section of the NW 107th Avenue station area within Doral is zoned as Industrial and as a Commercial Corridor. The Commercial Corridor District promotes medium to high-intensity business uses on major corridors. This zoning designation allows for retail developments, eating establishments, educational and training institutional, public schools, carwash places, and amusements. There are additional permitted uses with special development requirements, all other uses are prohibited.

The area around the NW 97th Avenue station is zoned as Industrial. This zoning designation allows for retail developments, eating establishments, educational and training institutional, public schools, carwash places, and amusements. There are additional permitted uses with special development requirements, all other uses are prohibited.

Sweetwater

Sweetwater was incorporated in 1941, and at the time of the 2010 Census, was home to over 13,000 residents. The City is generally bounded by SW 8th Street on the South, and NW 25th Street on the north. The Florida Turnpike makes up the western boundary, and the eastern boundary varies from NW 107th Avenue in the Dolphin Rail Corridor to SW 102nd Avenue along SW 8th Street.

Sweetwater annexed a large tract of land, including the area on the CSX East-West Corridor in 2010. This increased the population by an additional 7,000 residents and grew the City's economic base – Dolphin Mall and Ikea now fall within the City's limits, contributing to the City's tax rolls.

Sweetwater operates a municipal transit system which will be merged with Florida International University's (FIU) circulator services. The combined service will be referred to as the University City Transportation and Management Association of Sweetwater and will integrate the transit services to improve cost effectiveness and efficiency. This partnership between FIU and Sweetwater can provide a direct and convenient link from the Dolphin Rail Corridor to Sweetwater and the FIU Campus once rail operations commence.

Sweetwater Land Use

The Sweetwater Comprehensive Master Plan and Future Land Use Map identify the area near 107th station as a site of future urban development. Part of the station area is identified as the Dolphin Community Urban Center, while the rest is Commercial. The large parcel closest to the Dolphin Corridor station has an additional overlay applied, for the Metropolitan Urban Center.

Sweetwater Zoning

The Sweetwater Land Development Code and Zoning map identifies most of the land within the station area as industrial, with a small special commercial district, and the Dolphin Community Urban Center at the Northwest edge of the half mile station area buffer.

4 CORRIDOR MARKET OVERVIEW

4.1 THE CASE FOR TOD

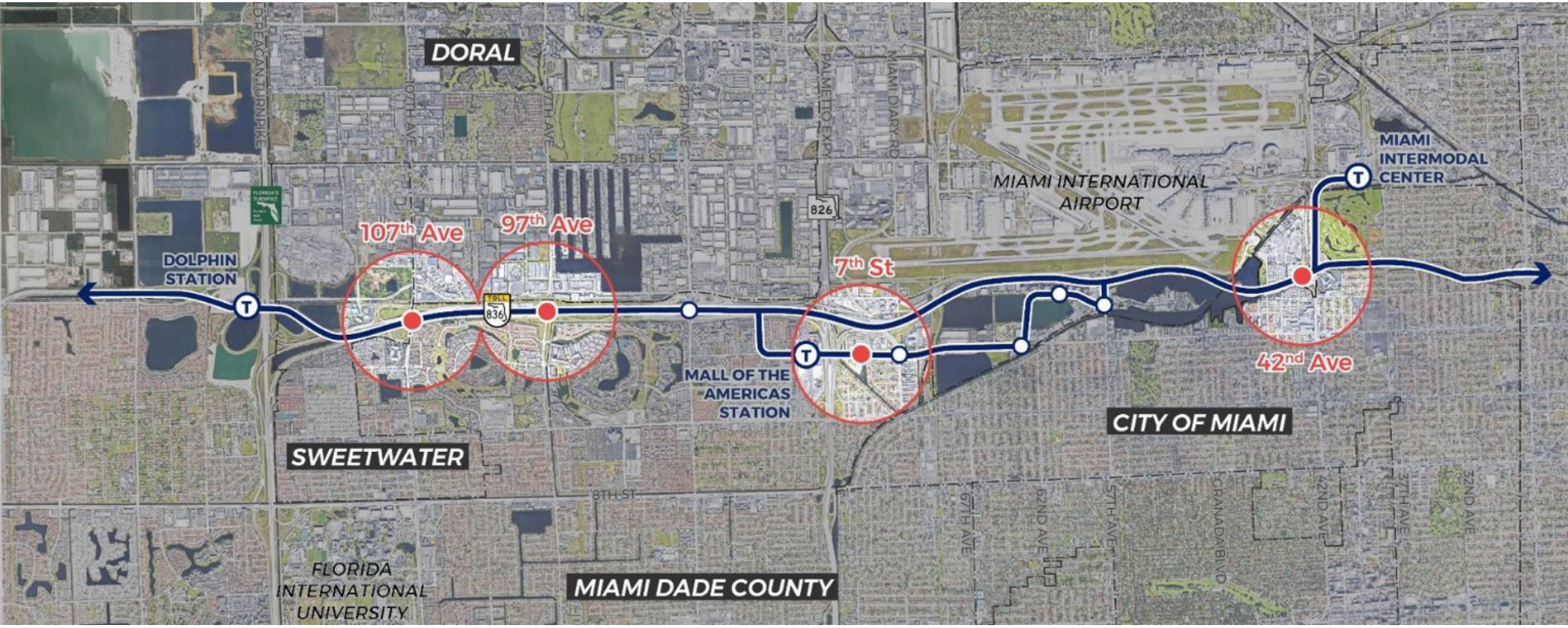
4.1.1 INTRODUCTION

Over the past two decades, planners and developers have reached a consensus that Transit-Oriented Development provides substantial economic value above traditional development and solves numerous urban problems beyond the concerns of transportation. TOD comes in many different forms, and the common attribute of concentrated development around rapid transit inherently provides benefits for residents, businesses, developers, and local governments. These benefits all factor in to a consistent pattern of increased property value for properties nearby rapid transit, especially planned TODs. Well established benefits include:

- Reduced travel time and cost for residents
- Reduced roadway congestion
- Enlarged labor pool for businesses
- Increased foot traffic for retail
- Improved public health due to physical activity and reduced stress
- Reduced Pollution

To ensure that successful TOD takes place around new transit investment requires foresight and planning. To determine if this effort is worthwhile at the station areas selected for this study (Figure 4-1), we must individually assess their merits. Once we have determined that TOD is appropriate, a more in-depth exploration of the existing economic environment around each site helps determine a recommended intensity of development for each station area.

Figure 4-1: Map of East-West Corridor and Half-Mile Radius Station Areas



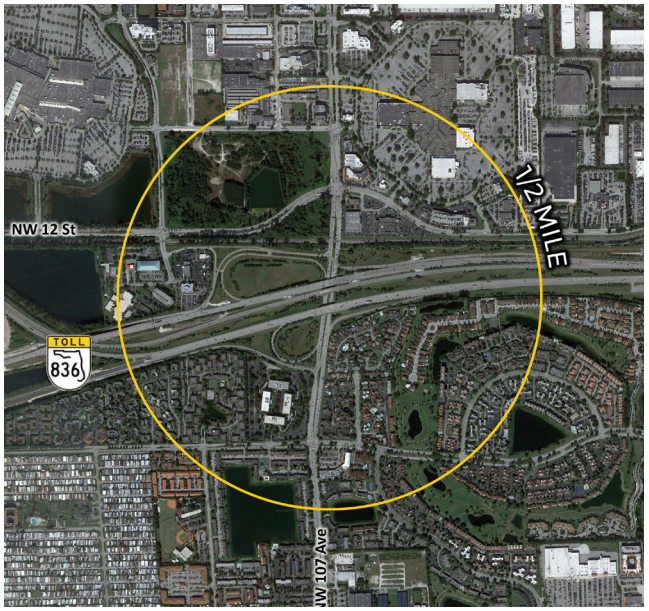
4.1.2 STATION AREAS

NW 107 AVENUE

The NW 107 Avenue area is an excellent site for a BRT TOD due to the proximity of major attractors like FIU, Dolphin Mall, and International Mall. The large quantity of vacant land near the intersection with NW 12th Street presents the opportunity for cohesive multi-block TOD, which can provide a complete car-free lifestyle for residents, something which may be out of reach for smaller TOD projects.

As the site positioned furthest to the west, commercial development here will encourage some level of reverse commuting both on the roads and via transit, alleviating peak period congestion and mitigating the inefficiency of "deadhead" return trips typically associated with commute focused transit.

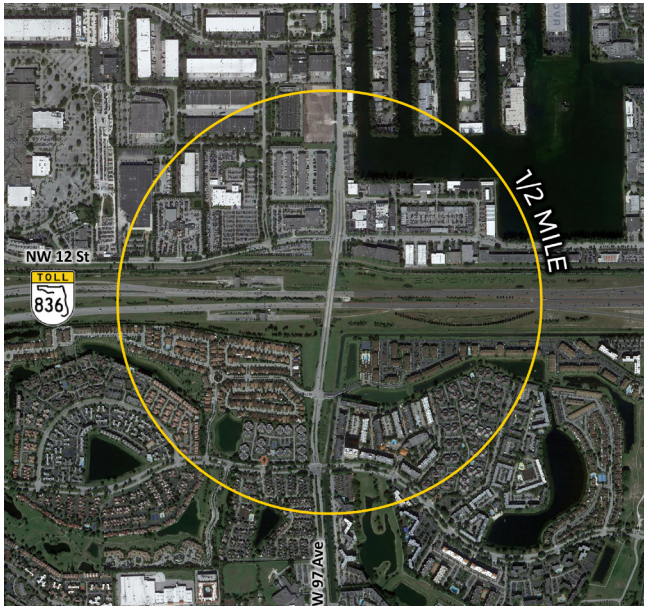
Another factor that suggests TOD will be successful at this site is the demand for entertainment uses. Entertainment districts in Miami-Dade have traditionally been located to the east, closer to the coast, but the completion of Doral CityPlace as well as the progress of Downtown Doral indicate an emerging trend of entertainment venues in Western Miami-Dade. Transit connections to entertainment districts provides the added benefit of improving community safety and reducing road accidents as well.



NW 97 AVENUE

The NW 97th Avenue station will be located between the Doral industrial area and Fountainebleau, a multifamily residential neighborhood. Similar to NW 107 Ave, this site is located in the west and therefore will enjoy some of the same positive effects due to reverse commuting and reduced miles traveled by local employees.

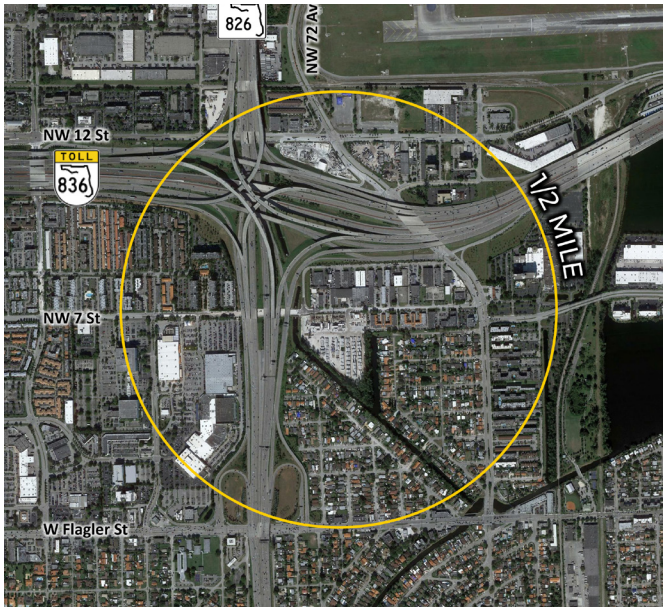
While the existing area contains almost exclusively light industrial uses, these structures typically do not go higher than 30 feet, presenting an opportunity for vertical mixed-uses, to improve the tax base without reducing the counties stock of industrial land. Because of the proximity to the 107th Avenue Station, development in this station area will be most successful if it has a unique character that capitalizes on the industrial land use and nearby water feature.



NW 7 STREET AT SR-826

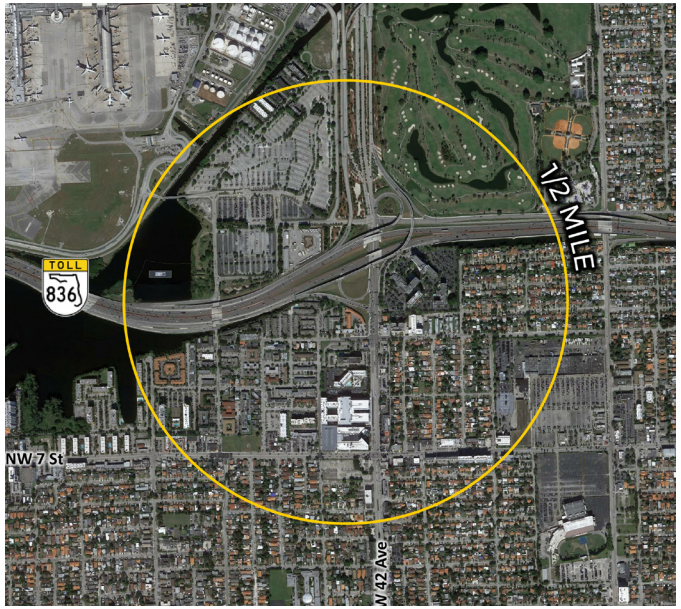
The NW 7 Street site provides the most mobility throughout the county of any site along this corridor due to its location at the intersection of the Dolphin (SR-836) and Palmetto (SR-826). For transit riders, this location will provide service via express bus routes running N-S along the Palmetto and connecting to the Metrorail system at Palmetto Station, in addition to the BRT service along the E-W Corridor which connects to the metrorail system at the MIC. This location also provides the most access to diverse employment opportunities, as it is located directly between the Doral industrial area and the Blue Lagoon office district. Mobility and access to jobs makes this a highly desirable site for mixed-income affordable housing.

The immediate surroundings of this site are light industrial buildings to the north, but apartment complexes to the west, single family homes to the south, and both homes and apartments to the east. The light industrial area is isolated and historic economic data suggests an opportunity for an evolution into more productive uses.



NW 42 AVENUE (LEJEUNE)

Located just south of the entrance to Miami International Airport, this site presents a unique set of opportunities and challenges for future development. Due to recently passed regulations related to airport flight paths, the existing housing stock in this area can not be re-built for residential use. However while the proximity to the airport restricts future land uses, it also provides an opportunity since Miami is a major international business center. With robust transit connections, this location could provide a convenient home base for business travelers since it is conveniently located between the Blue Lagoon office park, Downtown Miami, and Downtown Coral Gables.



4.2 AFFORDABLE HOUSING AND EQUITABLE TOD

Like many other major metro areas, Miami-Dade County is currently facing a housing affordability crisis. This problem is further exacerbated for people who struggle with transportation costs, since their housing options are restricted by the need to access their place of employment. By incentivizing and building affordable housing in TODs, the county can provide a two-for-one combo of reduced housing and transportation costs for residents in need.

Affordable housing refers to residences which are legally restricted to individuals and families living below a certain percentage of the area median income (AMI). The goal of affordable housing programs is to reduce the number of families who are cost burdened by housing (e.g. spending greater than 30% of their income on housing).

Both public housing and affordable housing are considered legally binding affordability restricted (LBAR) housing but are differentiated by the fact that public housing is owned and operated by a government entity and follows more stringent incomes requirements. In Miami, at least 40% of new public housing admissions must qualify as extremely low income (30% of AMI), with the remaining 60% of admissions meeting either the very low (50%) or low (80%) income limits. Examples of these income limits from 2019 are shown in Table 4-1. Affordable housing developments are frequently built for families and individuals with an income of 60% of AMI or less, but some affordable housing programs offer assistance up to 120% of AMI. Technically, the FTA defines LBAR as a unit with "a lien, deed of trust or other legal instrument attached to a property and/or housing structure that restricts the cost of housing units to be affordable to households at specified income levels for a defined period of time and requires that households at these income levels occupy these units."

Table 4-1: MIAMI-DADE AMI

FAMILY SIZE	EXTREMELY LOW INCOME (30% OF AMI)	VERY LOW INCOME (50% OF AMI)	LOW INCOME (80% OF AMI)
1	$17,800	$29,650	$47,450
4	$25,750	$42,350	$67,750

Source: Source: Miami-Dade County. Effective April 24, 2019

Unlike public housing, affordable housing is often built using some type of Public Private Partnership (P3) with non-profit or private developers utilizing public grant funds or low-cost financing options to subsidize development costs, in exchange for an agreed upon number of income-restricted units. While some developments consist entirely of affordable housing, others are mixed with market-rate units. In a mixed-income development such as this, the subsidized units are intended to be largely indistinguishable from market rate units, averting the stigma that can discourage some individuals from pursuing government assisted housing they qualify for.

Mixed-Income Transit-Oriented Development (MITOD) helps to mitigate the effects of some of the biggest challenges facing our society today. The affordable housing aspect particularly addresses climate gentrification, in which low income people are displaced into areas more likely to suffer the negative effects of climate change. The legal protections of mixed-income development ensure that the residents will not be displaced by market forces, and locating these developments near major infrastructure, where investment in resiliency is more likely to occur, reduces the risk for all residents.

4.2.1 AFFORDABILITY AND TRANSIT

TOD presents a unique opportunity to reduce burdensome housing and transportation costs for low-income populations through the inclusion of affordable housing. Expanded transit systems increase access to opportunities through easier commutes to jobs, schools, and recreational activities for transit-dependent populations. Simultaneously, new transit can result in an increase in property values of up to 150 percent, subsequently increasing the housing cost burden for existing residents. One way to combat this outcome is to promote affordable housing within new TOD plans, this is referred to as Equitable Transit Oriented-Development (eTOD). eTOD supports mixed-use development that includes affordable housing in close proximity to transit, boosting transit ridership by providing easy access to transit-dependent residents and helping agencies meet its equity and social goals. This approach tackles housing and transportation cost burdens on low income populations at once, expanding access to jobs, educational opportunities, and healthy lifestyles. eTOD's focus on affordable housing ensures the public investment in transit will benefit the entirety of a region's residents. Additionally, the premiums associated with transit development surrounding new station areas can be captured to help pay for additional affordable units, making it imperative that municipalities and transit agencies include affordable housing goals and targets into TOD policies to ensure that revenues can be partially used for additional affordable housing.

4.2.2 APPLICABILITY TO FTA'S NEW STARTS AND SMALL STARTS RATINGS

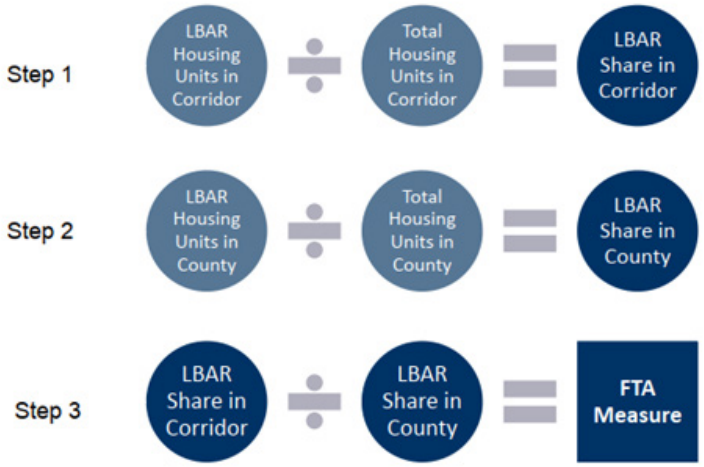
Since Miami-Dade is pursuing federal funding from the Federal Transit Administration's (FTA) New Starts or Small Starts program to complete transit along this corridor, both existing and planned affordable housing efforts will impact the project's rating in two Criteria: Existing Land Use and Economic Development.

LAND USE CRITERIA

For the Land Use Criteria section, FTA evaluates the ratio of LBAR units within a ½ mile of each proposed transit station which are designated for renters below 60% of the AMI. The more LBAR units in a corridor, the better rating.

To arrive at the FTA assessment rating found in Table 4-2, FTA completes a three-step calculation shown in Figure 4-2.

Figure 4-2: FTA AFFORDABLE HOUSING CALCULATIONS



Step 1: Determine the LBAR share of properties within a ½ mile buffer of each proposed station in the corridor by dividing the LBAR units within the buffer by the total housing units within the buffer.

Step 2: Determine the LBAR share of properties within the county by dividing the LBAR units in the county by the total number of housing units in the county.

Step 3: Arrive at the final ratio used to determine the FTA measure rating by diving the LBAR share within a ½-mile buffer of the Project stop's by the LBAR share of the entire county.

Source: FTA

Table 4-2: FTA RATING OF EXISTING LEGALLY BINDING AFFORDABILITY

DECISION OR APPROVAL PHASE	CRITERIA	RATING
Engineering and FFGA or SSGA	Ratio greater than 2.5	HIGH
	Ratio between 2.25 and 2.49	MEDIUM-HIGH
	Ratio between 1.50 and 2.24	MEDIUM
	Ratio between 1.10 and 1.49	MEDIUM-LOW
	Ratio less than 1.10	LOW

ECONOMIC DEVELOPMENT EFFECTS CRITERIA

The Economic Development Effects criterion includes: 1) Transit Supportive Plans and Policies; 2) Performance of Impacts and Policies; and 3) Tools to Maintain or Increase Share of Affordable Housing. The third item includes:

- Evaluation of corridor-specific affordable housing needs and supply
- Plans and policies to preserve and increase affordable housing in region and/or corridor (including this study)
- Adopted financing tools and strategies targeted to preserving and increasing affordable housing in the region and/or corridor
- Evidence of developer activity to preserve and increase affordable housing in the corridor
- Extent which plans and policies account for long-term affordability and needs of very to extremely-low income households in the corridor

FTA will look to see how the applicant has met each of these items broadly in the county, and more specifically along the project corridor. This will include the availability of local affordable housing programs, funding options, and incentives.

4.2.3 EXISTING CORRIDOR CONDITIONS

For a comprehensive overview of LBAR housing units in Miami-Dade County, the team relied on data from the National Housing Preservation Database and the Miami Affordability Project. As shown in Table 4-3, there are only 57,651 LBAR units in Miami-Dade County, out of 1,008,908 total, for a county-wide ratio of 0.057.

Table 4-3: HOUSING AFFORDABILITY RATIO

	COUNTY	CORRIDOR
LBAR HOUSING UNITS	57,651	174
TOTAL HOUSING UNITS	1,008,908	3,071
RATIO	0.05714198	0.056659

Miami Dade County and the City of Miami are in the midst of an affordable housing crisis. The City of Miami Affordable Housing Master Plan indicates the current need for new affordable units is least 50,000 units, and more expected in the future. In the summer of 2019, Miami Dade County held a summit and ensured the construction of over 14,000 new workforce and affordable housing units.

Within a ½ mile of the proposed stations, there is also a shortage of affordable units. There is a relatively low percentage of Section 8 assisted units, and only a single income restricted development with a total of 174 units, as shown in Figure 4-3. With 3,071 total housing units within ½ mile of our four station areas, this gives a local affordability ratio of 0.057; the same as the county.

This results in a county to project area LBAR ratio of 1, which corresponds with a “Low” Small Starts rating (see Table 4-4). To achieve a “High” rating, the corridor would need to have a project area LBAR ratio of 0.143 ((0.143/0.057 = 2.509), which requires an additional 310 LBAR units within the corridor buffer area.

The lack of affordable housing along the corridor is a concern for future FTA applications; however, this TOD master plan presents the opportunity to design affordable housing policies that can greatly enhance the overall project. The detailed affordability analysis and forecasting at the four stations to be completed as a part of this study will meet the FTA requirements of the "Evaluation of corridor-specific affordable housing needs and supply," and the developer outreach undertaken during the TOD master plan effort will also speak to Miami-Dade's commitment to furthering affordable housing in the corridor.

Figure 4-3: LBAR HOUSING ALONG THE PROJECT CORRIDOR

Source: Miami Affordability Project – University of Miami Office of Civic and Community Engagement

Table 4-4: EXISTING AFFORDABLE HOUSING

STATION	DEVELOPMENT NAME	ADDRESS	TENANT TYPE	UNITS
107TH AVENUE	-	-	-	-
97TH AVENUE	-	-	-	-
7TH STREET	Vizcaya Villas	8005 NW 8th Street	Family	174
42ND AVENUE	-	-	-	-

Source: National Housing Preservation Database, Miami Affordability Project – U. of Miami Office of Civic and Community Engagement

4.2.4 LOCAL AFFORDABLE HOUSING ORGANIZATIONS

Affordable housing plans, programs, and policies along the East-West Corridor are primarily overseen by three government agencies: the Miami-Dade County Department of Public Housing and Community Development (PHCD), the City of Miami Department of Housing and Community Development (HCD), and the Miami-Dade Housing Finance Authority (HFA).

MIAMI-DADE COUNTY DEPARTMENT OF PUBLIC HOUSING AND COMMUNITY DEVELOPMENT (PHCD)

PHCD owns and operates approximately 9,500 units of public housing in 113 family and elderly developments. PHCD also manages several mixed-income housing developments charging rent to low-income families. PHCD also helps oversee the Miami-Dade County Affordable Housing Trust Fund, which also works to alleviate the housing challenges in the county by serving as a permanent, renewable source of revenue for affordable housing programs through surtax funds, though guidelines are still being developed for the use of this trust fund. This includes the Documentary Stamp Surtax Program is also used to provide low-interest loans and gap financing for the development and preservation of affordable and workforce housing through the through a competitive application process administered by PHCD.

Miami-Dade has also embarked on transformative affordable housing efforts elsewhere in the county, with partnership models that can be replicated along the corridor. For example, PHCD and the for-profit developer Related recently announced a plan to transform a 22-acre low-density apartment complex in Little Havana into a new mixed-income community, increasing the existing number of affordable units on the site, while increasing densities and adding work-force housing and market rate units to the development as well.

THE CITY OF MIAMI DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

The City of Miami's Department of Housing and Community Development coordinates the programs funded through federal and state grants, such as Community Development Block Grants (CDBG), Home Investment Partnership Program funds, and the State Housing Initiative Program (SHIP). It creates cooperative partnerships with public and private sectors to oversee the decisions of Housing and Administrative services, which manages programs such a homelessness prevention/rapid rehousing, Section 8 vouchers, and other grants such as Short-term Rental, Mortgage, and Utility Assistance.

The Department is also responsible for the City of Miami Affordable /Housing Master Plan. In the Fall of 2018, the City of Miami signed an agreement with Florida International University's Metropolitan Center to commission the preparation and drafting of a comprehensive City of Miami Affordable Housing Master Plan. Since then, the Center's researchers have been analyzing the most recently issued U.S. Census data for all City census tracts as they work on this important document. The overarching goal of the Plan is to quantify the City's current housing landscape, and then outline specific, data-driven strategies that can help City leaders tackle the affordable housing shortage in the coming years. The Department will be working with the Connect Capital initiative to hold public meetings in different City neighborhoods in the Spring of 2019, to discuss the data findings and gather feedback from residents.

MIAMI-DADE HOUSING FINANCE AUTHORITY (HFA)

The HFA was created to address a housing shortage in the county by stimulating the construction and rehabilitation of housing by providing low-interest rate loans to produce new or rehabilitated housing for rent at low and moderate income ranges. It also operates educational and assistance programs for home buyers, renters, developers and the community.

CITY OF DORAL

The City of Doral completed its Housing Master Plan in 2018. The Plan summarizes the current housing situation in Doral and lays out the city's workforce housing strategies. The Master Plan recommends extending the workforce housing thresholds from 65-140% to 60-150% of AMI. Other primary recommendations include targeting multi-family housing, prioritizing long-term solutions, targeting opportunity areas, adopting a mandated inclusionary zoning program with a density bonus incentive, considering additional incentives such as reduced parking requirements, and designating a city staff member to overseeing the workforce housing program. However, with limited housing development opportunities in the Doral portion of the corridor, it is unlikely that this will be impactful.

4.2.5 POTENTIAL FUNDING & FINANCING SOURCES

This section reviews the different types of funding sources available to developers in Miami-Dade County at the federal, state, and local level that can be used to assist with the pre-development or capital costs associated with the creation of new affordable housing. This review does not focus on funding sources and tools to assist renters or potential buyers gain access to housing that is not protected as legally binding affordable housing, nor does it focus on creating additional public housing, which is managed by Miami-Dade's PHCD. Affordable housing financing is often very complex, using a multitude of sources to complete a project's capital stack, often with varying administering agencies or lenders and numerous reporting requirements.

GRANTS

Grant funding is available at the federal, regional, and local level to support the affordable housing within the planned TOD along the corridor. Grants are awarded on a competitive basis with specified project and applicant eligibility requirements. Specific sources of grant funds are detailed in Appendix 3. These programs include:

- **HOME INVESTMENTS PARTNERSHIPS PROGRAM**
- **COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)**
- **NATIONAL HOUSING TRUST FUND**

TAX CREDITS

Tax Credits are a powerful tool used to help close the financial gap experienced by many development projects. A tax credit is an amount of money that can be subtracted from a tax liability, or the amount of taxes due to the Internal Revenue Service. Unlike a tax deduction, which lowers taxable income, a tax credit of a certain dollar amount decreases taxes owed by that amount. Most tax credits are known as non-refundable tax credits. This means that the amount of excess credits expires in the year in which the tax credit is used. In other words, non-refundable tax credits cannot reduce a tax liability to below zero. There are also refundable tax credits, which are also subtracted from the amount of taxes owed. Unlike non-refundable tax credits, refundable tax credits can decrease a tax liability to below zero.

Developers either use the tax credits to partially finance the project, or more likely, exchange them with an investor for equity. In many cases, the exchange is structured as a limited partnership between the developer and investor. The developer has a small ownership percentage, but has the authority to build and run the project. The investor, on the other hand, has a large ownership percentage, but is not very involved in the day-to-day business of the project. Specific tax credit programs are detailed in Appendix 3. These programs include:

- **LOW INCOME HOUSING TAX CREDIT PROGRAM (9 PERCENT)**
- **LOW INCOME HOUSING TAX CREDIT PROGRAM (4 PERCENT)**
- **COMMUNITY CONTRIBUTION TAX CREDIT PROGRAM**

TOD POLICY AND DEVELOPER INCENTIVES

There are a number of policy tools and developer incentives local governments can employ to entice developers to invest in the East-West corridor. These can range from reductions in taxes owed to increased allowable building footprints and more. Specific development incentivization strategies are detailed in Appendix 3. These strategies include:

- **INFILL HOUSING INITIATIVES PROGRAM**
- **LAND BANKS**
- **PROPERTY TAX ABATEMENT**
- **DENSITY BONUSES**

FINANCING

Affordable housing projects require both debt and equity. Traditional commercial loans are an option for developers, however; there are other financing options with special terms that offer a public or private party lower interest rates and flexible terms to meet the often-complex mixed-use nature of affordable housing.

Developers of affordable housing within TOD should also consider different types of loan products. For example, mezzanine debt, an unsecured subordinated loan which may have equity-like characteristics, can fill a loan-to-value (LTV) ratio gap when resources to fund a large portion of a project aren't available in the financial market. One TOD study found that developers in strong TOD markets accepted a lower LTV in exchange for other favorable terms, like reduced level of recourse or lower loan fees.

Specific sources of project financing are detailed in Appendix 3. These programs include:

- **HUD SECTION 108 LOAN GUARANTEE PROGRAM**
- **HUD SECTION 202 SUPPORTIVE HOUSING FOR THE ELDERLY PROGRAM**
- **HUD SECTION 811 SUPPORTIVE HOUSING FOR PERSONS WITH DISABILITIES**
- **HUD MIXED-FINANCE PUBLIC HOUSING PROGRAM**
- **ENTERPRISE MULTIFAMILY OPPORTUNITY FUND**
- **FLORIDA MULTIFAMILY MORTGAGE REVENUE BOND (MMRB) PROGRAM**
- **FLORIDA STATE APARTMENT INCENTIVE LOAN PROGRAM (SAIL)**
- **FLORIDA STATE PREDEVELOPMENT LOAN PROGRAM**
- **MIAMI-DADE DOCUMENTARY STAMP SURTAX PROGRAM**
- **STRUCTURED LOAN FUNDS**

RECOMMENDED FUNDING AND FINANCING SOURCES

While there are many resources available to low-income persons both for rental and home buying assistance as discussed in the Existing Local Programs, Plan, and Policies Section, and a variety of grants, loans, tax credits and incentives available to developer to build additional affordable housing presented in the Potential Funding and Financing Section, Table 4-5 below presents an initial recommendation of most helpful sources to developers to complete the type of high-density mixed-use and mix-income development imagined through the East-West Corridor Master TOD Plan. As station designs are finalized, this list may change.

Table 4-5: RECOMMENDED FUNDING AND FINANCING SOURCES

OPPORTUNITY	ADMINISTERING AGENCY	OVERVIEW	ELIGIBLE ACTIVITIES
Grants			
Community Development Block Grants (CBDG)	PHCD	The Community Development Block Grants (CDBG) program is a source of flexible funding for projects that ensure communities have affordable housing, provide services to vulnerable populations, and create jobs through expansion and retention of business.	Property acquisition, rehabilitation, and soft costs to facilitate affordable housing development and public services
Tax Credits			
Low Income Housing Tax Credits (LIHTC) 9%	FHFC	The Low-Income Housing Tax Credit (9%) is a program that incentivizes the development and rehabilitation of affordable housing. The credits are awarded to developers in a competitive process, and can then be used to partially finance the project, or exchanged with an investor for equity. The tax credits are claimed over a period of 10 years.	New production and preservation of existing affordable rental housing.
LIHTC 4%	FHFC	4% LIHTCs are used for projects utilizing tax-exempt bonds , and may cover up to 30% of eligible costs. The 4% LIHTC awards allows the developer a 130% basis boost in high-cost areas. These bonds require at least 50% project equity.	New production and preservation of existing affordable rental housing.
Policy/Incentives			
Developer Bonuses (Zoning)	Miami-Dade County	Density Bonuses is a zoning tool that grants developers the ability to build at higher than allowable zoned densities, in exchange for providing an economic benefit the locality desires.	Increases allowable FAR and densities for developments
Property Tax Abatement	Miami-Dade County	Property tax abatements allow a property owner to either completely forgo or pay a reduced amount of property tax on improvement to a property over a defined period. Property Tax Abatement programs do not eliminate an owners' tax bill, as the owner is still responsible for paying taxes on the value of the property before improvements.	Real Property

OPPORTUNITY	ADMINISTERING AGENCY	OVERVIEW	ELIGIBLE ACTIVITIES
Financing			
HUD Section 108 Loans	PHCD	The Section 108 Loan Guarantee Program (Section 108) is the loan guarantee component of the CDBG program.	Economic development, housing rehabilitation, public facilities, and other physical development projects
Structured Loan Funds	TBD (does not yet exist in Miami)	A structured fund is a loan fund that pools money from different investors with varying risk and return profiles. Structured funds have a dedicated purpose, such as TOD, which is clearly defined before the fund is formed, and are managed by professionals with fund formation and loan underwriting experience. This is an emerging tool and has been successfully used in Denver. The fund may stipulate an affordability components to new TOD.	TOD construction
Florida Multifamily Mortgage Revenue Bond (MMRB)	FHFC	Funded by federal private activity bond volume allocated to states, this program is intended to finance the development and preservation of rental apartments through proceeds from taxable and tax exempt bonds issued to provide below market rate loans to developers who set aside a certain percentage of their apartments for low income families.	Affordable housing construction and preservation
Florida State Apartment Incentive Loan Program (SAIL)	FHFC	This program provides gap financing through non-amortizing, low-interest loans to developers to obtain the full financing needed to construct affordable rental units for very low income families.	Affordable housing construction costs.
Florida State Predevelopment Loan Program	FHFC	The Predevelopment Loan Program (PLP) helps nonprofit and community based organizations, local governments, and public housing authorities plan, finance, and develop affordable housing. Eligible organizations may apply for a loan of up to $750,000. These activities must be part of a nonprofit or governmental organization's efforts to develop housing for low income households. Specifically, rental developments must set aside 20 percent of its units for persons earning 50 percent or below of area median income (AMI).	Predevelopment activities such a rezoning, soil tests, engineering fees, title searches, appraisals, feasibility analysis, legal fees, audit fees, earnest money deposit, impact fees, insurance fees, commitment fees, administrative costs, marketing expenses and acquisition expenses

4.3 MARKET ANALYSIS

A careful real estate market analysis helps the planning team understand feasible, market-driven build-out scenarios, as well as the revenue-generating potential of various value capture strategies. In this section, historical and forecast market data on real estate supply and demand conditions are used to inform corridor and station-specific development programs. This section summarizes the market analysis findings, including the scale and mix of commercial and residential uses.

The market analysis effort evaluates the corridor and station areas through the lens of:

- Real Estate Market Conditions:
  - Historical and forecast market conditions for TOD land uses at regional, sub-market, and corridor level;
  - Demand indicators, including economic and demographic trends;
  - Supply conditions for multifamily, office, and retail land uses.

- Corridor / Station Area Context:
  - An inventory of station-specific locational strengths and weaknesses for new development, such as proximity to regional activity centers, employment concentrations, amenities/destinations

- Development Capacity:
  - Parcel utilization analysis, including an inventory of vacant and underutilized land area in each station area;
  - Overall development capacity and potential for new development opportunities.

The market analysis focuses on supply and demand conditions for new TOD land uses. Indicators and sources of demand are rooted in socioeconomic indicators, including historical and forecast trends in household growth, stratified by age, income, size, and other relevant demographic factors informing demand, and selected economic trends such as employment growth by sector. In terms of real estate market supply conditions, historical and forecast market data were analyzed, including historical and forecast average rents, net absorption, and vacancy of commercial and residential uses in the region and local sub-market. Findings and conclusions will inform other master plan tasks including the station-specific planning. Once proposed land uses at each station are finalized by the station area design team, preliminary value capture revenue estimates will be finalized based on these proposed build-outs.

4.3.1 SOCIOECONOMIC CONDITIONS

Drivers of TOD Demand

From a macroeconomic perspective, several market forces are contributing to an ongoing structural shift in supply and demand conditions favoring the type of multifamily product found in typical TOD development. These include the evolving preferences of the two largest demographic segments as well as shifting preferences and changing perceptions that were a result of the housing crisis and Great Recession. Although there will always be certain segments of the population, such as growing and mature families, that prefer the lower-density, suburban residential format, this segment is not nearly as prevalent as it was in the past. Demographic trends suggest that there is an increasing demand for urban living from two large and growing segments: Empty Nesters and Millennials.

As the Baby Boomer generation continues to age, the large segment of mature family households (those with older children) are transitioning into empty-nester households and no longer need the amount of space single family housing supplies. Those choosing to move are seeking smaller, low-maintenance residential options that offer better proximity to amenities and services, which are typically in more urban locations. They are, however, generally less willing to relocate to more pioneering or transitioning areas, and can typically afford more established locations.

Millennials represent the other key to the recent turnaround in many urban centers. This generation was born between 1981 and 1996, and are now rapidly taking over the real estate market as they purchase their first homes in their 30s. They are generally attracted to urban locations offering a broad range of activities, but because wages have stagnated against inflation during their lifetimes, they are typically financially constrained. Because of this constraint, millennials are more willing to consider pioneering locations, especially rental units with access to transit for transportation cost savings. Desired locations typically offer some combination of cultural amenities and affordability.

The boom and resulting bust in for-sale housing that culminated in the Great Recession has served to create a market opportunity for new rental apartments. From a demand perspective, household preferences have shifted from owner to renter for a variety of reasons. After a period of declining price trends, homeownership is now no longer perceived as the risk-free investment it was once thought to be. Furthermore, the transaction costs of buying and selling a home serve to limit housing options, thereby limiting the worker's pool of job opportunities. This flexibility became more of a priority during the weak economic conditions of the Great Recession when employees sought work wherever they could find it geographically. Lastly, numerous households found themselves in homes they eventually could not afford. This segment gradually shifted back to the rental demand pool.

During the housing boom, a higher proportion of for-sale units were developed and rental apartments were delivered at a far lower rate compared to historical trends. Now, as demand preferences have shifted back from owner to renter, the relatively low level of new rental construction that took place during the housing boom has resulted in tight rental markets throughout the county.

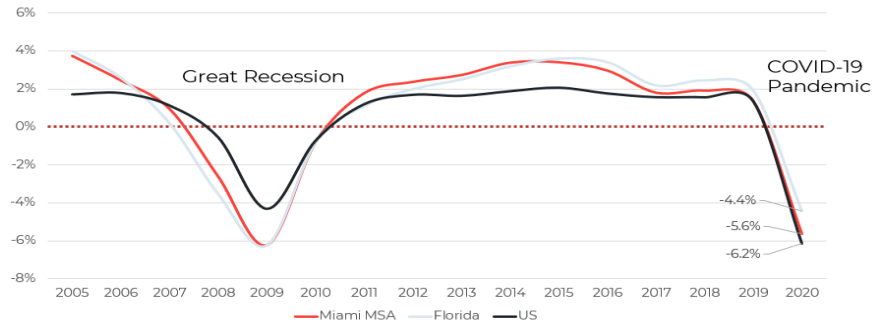
4.3.2 SOCIOECONOMIC TRENDS

Growth in employment indicates a growth in demand for commercial land uses and creates additional local demand for new residential units. As such, understanding historical and forecast employment trends in the region and for the corridor will inform the overall demand potential for new TOD. On the demographic side, trends in household growth stratified by age, income, size, tenure, and other factors were reviewed to better understand potential depth of demand for various residential product types in a TOD setting.

Miami-Dade County showed strong, steady job growth over the past decade following the Great Recession. This trend of consistent growth since 2011 was disrupted by COVID-19, which has had a dramatic economic effect on most major economies due to shutdowns of entire industry sectors such as travel and hospitality, which are a major part of the Miami Economy. The dramatic impacts of putting the economy into an "induced coma" are shown in 4-4. Thanks to the development of multiple vaccines, the economy is expected to recover in time, with some sectors benefiting from pent-up demand and others facing a long uphill recovery. For the purposes of this analysis a 20-year forecast period is used, and it is assumed that the economy and demand conditions will have long since recovered from today's challenges.

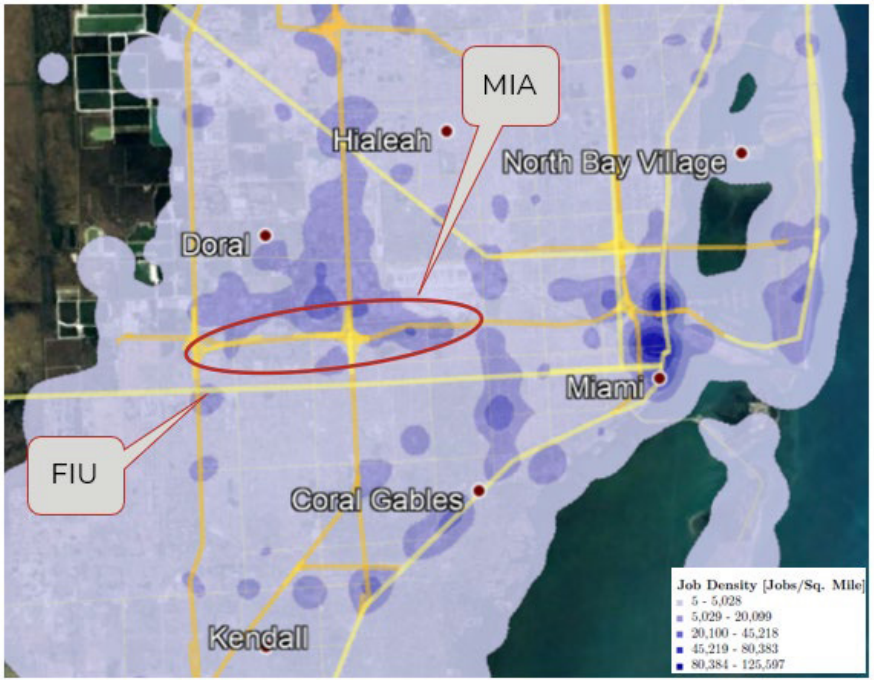
Figure 4-4 shows that in addition to downtown Miami, the corridor includes some of the county's most significant employment concentrations. Locally, the East-West Corridor is bookended by two key regional activity centers: Miami International Airport (MIA) and Florida International University (FIU). The corridor also spans two major employment centers: the Doral industrial area is one of the largest concentrations of light industrial land uses in the region, and the Blue Lagoon office area which contains a major concentration of white-collar jobs.

ANNUAL EMPLOYMENT GROWTH



Source: WSP, U.S. BLS

Figure 4-4: MAP OF JOB DENSITY (JOBS / SQUARE MILE), MIAMI-DADE COUNTY, 2019



Source: WSP, U.S. Census Bureau

Residential Growth Trends

The rate of household growth in the corridor lagged that of the county from 2000 to 2010 (0.6% annually versus 1.1%) but is estimated to grow at a similar pace to the county from 2010 through 2020, as shown in Table 4-6.

Table 4-6: TOTAL HOUSEHOLDS, MIAMI-DADE COUNTY AND EAST-WEST CORRIDOR, 2000 - 2020

	2000	2010	2020 (FORECAST)
MIAMI-DADE COUNTY	776.8k	867.4k	962.3k
TOTAL GROWTH		90.5k	95.0k
ANNUAL GROWTH RATE		1.1%	1.0%
EAST-WEST CORRIDOR	62.3k	66.0k	71.4k
TOTAL GROWTH		3.8k	5.4k
ANNUAL GROWTH RATE		0.6%	1.0%

Source: WSP, U.S. Census Bureau, Miami-Dade TPO

This pattern is due in part to the corridor's employment-driven character. The corridor has several large employment concentrations and the jobs-to-housing ratio is approximately 3 to 1. As such, it is not surprising that it has not kept pace with the county wide average household growth historically (from 2000-2010). However, growth has been stronger from 2010 to 2020, indicating that it is evolving into a more diverse mix of commercial and residential land uses.

4.3.3 CORRIDOR SOCIOECONOMIC FORECAST

The socioeconomic forecast for this corridor aims to predict the level of employment and household growth for a half mile radius around the corridor, between today and 2040. This forecast was performed with data from the Southeast Florida Regional Planning Model version 7 (SERPM7) developed by the Miami-Dade Transportation Planning Organization (TPO). From 2020 through 2040, this area is forecast to grow by 11,500 total households. Over the same forecast period, the forecast corridor employment growth rate is 1.5%, almost twice that of the region (0.9%). This constitutes an increase of 19,000 jobs from 2020-2040, including over 8,000 in office-using industry sectors such as information technology, financial services, and professional/business services. More details on the Socioeconomic Forecast are included in Appendix 3.

4.4 REAL ESTATE SUPPLY CONDITIONS

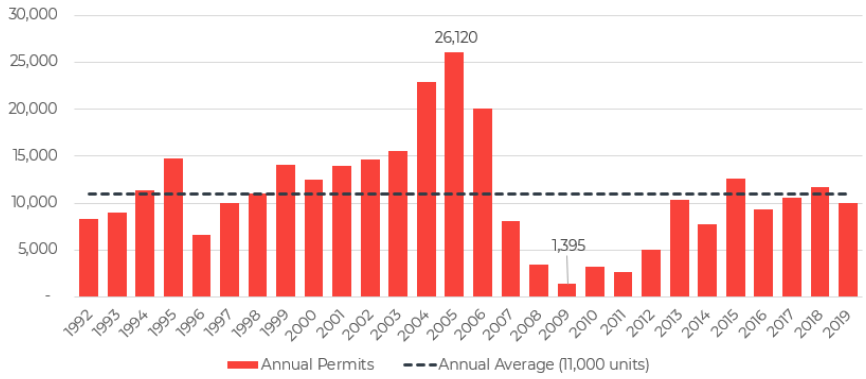
This section provides an evaluation of key real estate indicators for the core uses considered at the station areas, including multifamily residential, office space, and retail space. Depending on data availability, these indicators for various land uses are evaluated at the regional, county, and corridor level to help shed further light on the development potential for TOD along the corridor.

4.4.1 MULTIFAMILY RESIDENTIAL SUPPLY

Following the extreme peak and resulting valley of the housing bubble of the 2000s, new market-rate housing has been delivered at more sustainable, steady levels over the past decade. Figure 4-5 shows this historical trend in residential permit issuance in Miami-Dade County, with a peak of over 26,000 permits issued in 2005 followed by a low of 1,400 permits in 2009.

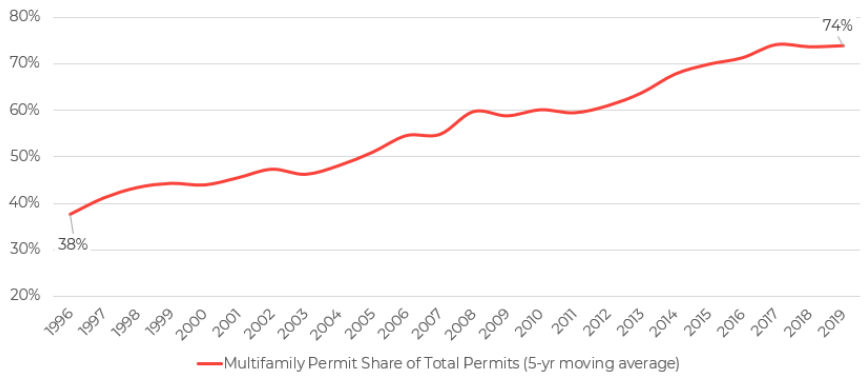
As developable land in the county becomes increasingly scarce, the profile of new construction has undergone a long-term shift from predominantly single family to multifamily, as shown in Figure 4-6. This dynamic suggests increasing potential for denser, infill redevelopment in strategic locations such as the East-West Corridor. Long-range forecast for the region estimates 80% of all new units will be multifamily.

Figure 4-5: ANNUAL RESIDENTIAL PERMIT ISSUANCE (UNITS), MIAMI-DADE COUNTY, 1992 – 2019



Source: WSP, U.S. Department of Housing and Urban Development

Figure 4-6: 5+ MULTIFAMILY PERMITS SHARE OF TOTAL RESIDENTIAL PERMITS, MIAMI-DADE COUNTY, 1992 – 2019



Source: WSP, U.S. Department of Housing and Urban Development

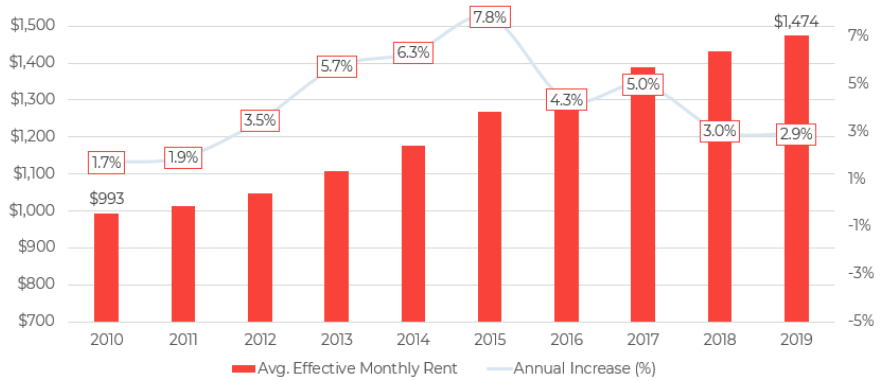
During the period of economic growth from 2010-2019, housing production did not keep pace with job growth and was outpaced at a ratio of 4:1, with approximately 50,000 new dwelling units delivered vs the 200,000 new jobs. This trend suggests a growing potential for infill multifamily development due to the constraint of the urban development boundary.

When housing production is outpaced by job growth, an increase in rent typically occurs. Over the last decade, average monthly rents in Miami-Dade County increased by 50%, from below $1,000 in 2010 to almost $1,500 in 2019, severely exacerbating the housing affordability crisis. Figure 4-7 shows how this growth has occurred, peaking in 2015 with 7.8% growth in average rents in a single year.

Although these rent increases are a sign of strength for market-rate development, it also reflective of a housing affordability crisis, as detailed in appendix 4. In Miami-Dade County, 59% of renters are classified as rent burdened.

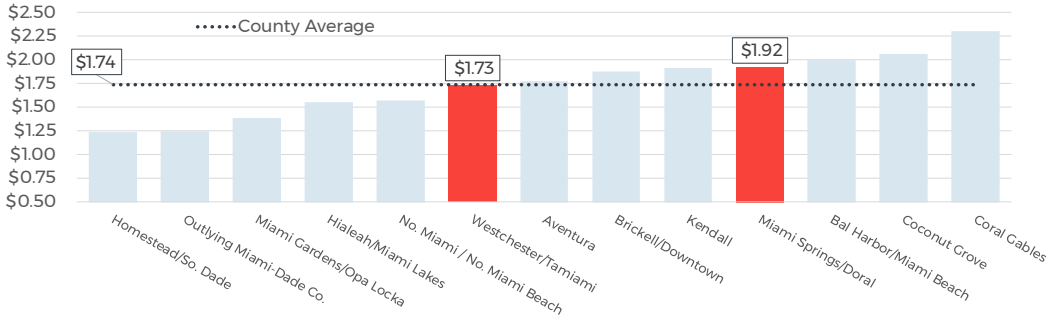
Figure 4-8 shows approximate multifamily residential rental value for various sub-markets within Miami-Dade County. The Westchester/Tamiami sub-market is located along the south side of the corridor, and achieves an average monthly rent of $1.73 per square foot, which is on par with the county-wide average of $1.74. However the Miami Springs/Doral sub-market reports a significantly higher an average monthly rent of $1.92 per square foot, a difference of 10%.

Figure 4-7: AVERAGE EFFECTIVE MONTHLY RENT & ANNUAL GROWTH, MIAMI-DADE COUNTY



Source: WSP, Newmark Group, Inc.

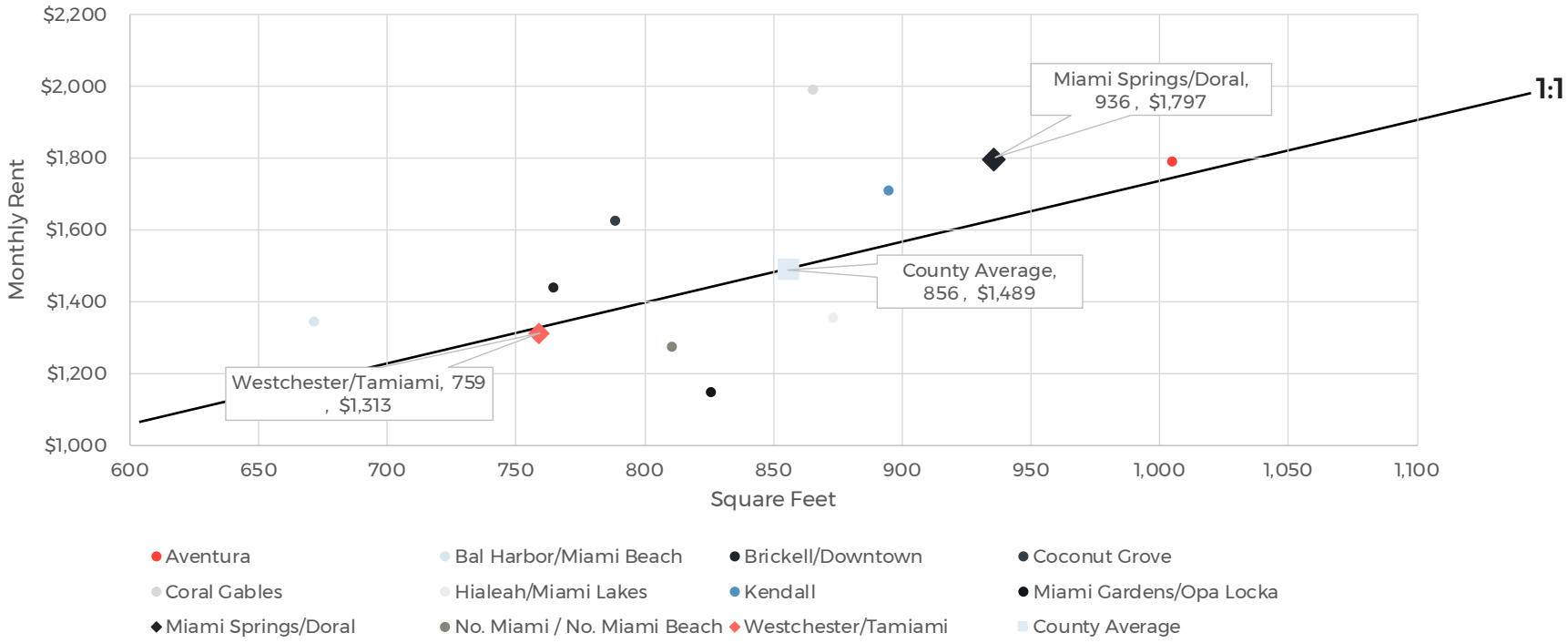
Figure 4-8: AVERAGE MONTHLY RENT PER SQUARE FOOT, MIAMI-DADE COUNTY SUB-MARKETS, 2019



Source: WSP, Newmark Group, Inc.

The typical measure of housing value is rent per square foot, but in some situations development is limited more severely by the maximum number of dwelling units than square footage. Figure 4-9 shows the relationship between the average price and square footage for different sub-markets in Miami-Dade County. The average apartment in the County is 856 square feet and rents for $1,489 per month, or $1.74 per square foot. Multifamily inventory south of the corridor in the Westchester/Tamiami sub-market is smaller, with an average unit size of 759 square feet, priced at $1,313 per month, or $1.73 per square foot. Units in the Miami Springs/Doral sub-market to the north of the corridor are larger, with an average size of 936 square feet, and a rent price of $1,797 per month, or $1.92 per square foot. These numbers indicate that while both sub-markets are above county average value, Westchester/Tamiami achieves this through smaller units, while the Miami Springs/Doral sub-market has larger units and ever more elevated price per square foot, indicating that market rate residential development will yield more capturable value in Miami Springs/Doral sub-market, while affordable housing will be more appropriate in the eastern Westchester/Tamiami sub-market.

Figure 4-9: AVERAGE APARTMENT MONTHLY RENT-TO-SIZE MATRIX, MIAMI-DADE COUNTY SUB-MARKETS, 2019



Source: WSP, Newmark Group, Inc.

4.4.2 COMMERCIAL SUPPLY

COVID-19 has had a dramatic impact on office market conditions. While temporary, opinions vary as to what extent, if any, these temporary issues may impact long-term demand for office space. As such, this is a critical topic in any discussion of local office development opportunities. The latest consensus is that the global pandemic will be a catalyst for trends that will serve to offset each other (some positive, some negative) and minimize reduction in long-term demand.

The following analysis of commercial supply begins at a macro level, evaluating the latest industry consensus on long-term office trends nationally. The analysis then narrows the focus to the more traditional metrics used to evaluate office market conditions at the local and corridor level, as well as the burgeoning market for less conventional, more flexible office. Lastly, the section touches on the overall market opportunity for retail space in the face of continued growth in online shopping.

Long Term Office Industry Trends

The global pandemic has disrupted travel patterns of residents and workers in the region. Driving, commuting, parking, and work habits have been and remain dramatically altered, and long-term behavior shifts are yet to be determined. While the overall economy and office market are assumed to have rebounded from the COVID-19 economic crisis over the period of this analysis, there may still be lasting impacts to the way we use office space in the future. These shifts have the potential to cause significant structural changes to overall office market supply and demand conditions nationally and regionally. A review of the latest industry reports covering the future of office market demand revealed the following key themes:

1. Acceleration of Work-From-Home - The existing trend towards teleworking has grown and caused a reduced demand for office space.
2. Increased Worker Distance Requirements – More social distance is causing an increased demand for office space.
3. Need for Hybrid/Flexible Office Space - Workspaces that "meet in the middle" between the extremes of work from home (WFH) and work in a central business district (CBD) – Smaller-scale, flexible office space in less conventional, locations.

THEME 1: ACCELERATION OF WFH

After the retail and hospitality sectors, the office sector is considered to be the most severely impacted land use in the short term, as the majority of office-using employees have converted to telecommuting. While this shift is a temporary result of efforts to minimize the spread of COVID-19, many employees are discovering that they can conduct the day-to-day requirements of their jobs just as effectively from home. As a result, some office-using employers are rethinking the physical real estate footprint needed going forward. On the other hand, many office-using industry sectors require activities that are more productive in an office environment, which can often facilitate better coordination, collaboration, knowledge transfer, and career guidance / interaction between junior level and senior level staff. Beyond

industry sector, employee preference varies on a case-by-case basis depending on factors such as: dependents, childcare demands, existing home office space or lack thereof, and other work-life balance considerations.

Although the landscape of employer and employee preferences continues to change rapidly, most industry experts agree that the propensity to work from home will increase permanently as a result of the pandemic, which could pose a risk to long-term office demand fundamentals. However, surveys from Gensler and PWC indicate that at least 72% of workers surveyed want the ability to conduct their work in an office for some amount of their work week.

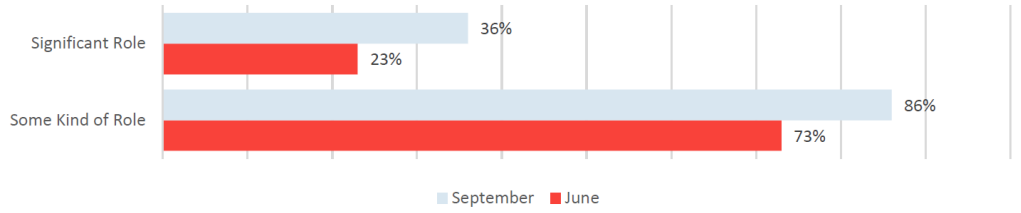
THEME 2: INCREASED WORKER DISTANCE REQUIREMENTS

Those employees and office tenants who do return to the office in larger-scale office settings are likely to require more space per employee than in the past to increase physical distance between employees. Now that the term "social distancing" has been added to our everyday vocabulary, most office development practitioners and office workers expect to return to workplaces that will foster greater physical distance amongst employees and carefully consider the amount of shared space versus dedicated space. Unlike the work-from-home trend which the pandemic has served as an accelerant for, implementing social distance measures into the office environment would be a reversal of the industry trend towards maximum space efficiency. While every tenant and employee has different situations and preferences, at a macro level this expectation of greater employee distance is likely to mostly offset the reduced office demand resulting from increased propensity to work from home. A recent office market demand analysis conducted by CBRE Econometric Advisors forecasts a net overall decline in office market demand of approximately 2% by 2030 as a result of both trends.

THEME 3: NEED FOR HYBRID / FLEXIBLE OFFICE SPACE

In addition to the above trends, there is also a strong possibility for much greater demand for suburban, flexible office options that "meet in the middle" between working from home and working in a conventional office destination. This will result in increased demand for smaller-scale, flexible office space in less conventional locations, or "urbanized suburban" settings. As the pandemic persists, flexible, shared space is increasingly being considered as a viable option for larger corporate office users. Companies are also exploring the idea of satellite offices offering workspaces within closer proximity to where workers live. A CBRE survey of office tenants taken in both June and September of 2020 reflects this evolving outlook on flexible office space, shown in Figure 4-10.

Figure 4-10: RESPONSES OVER TIME ON THE ANTICIPATED ROLE OF FLEXIBLE OFFICE SPACE

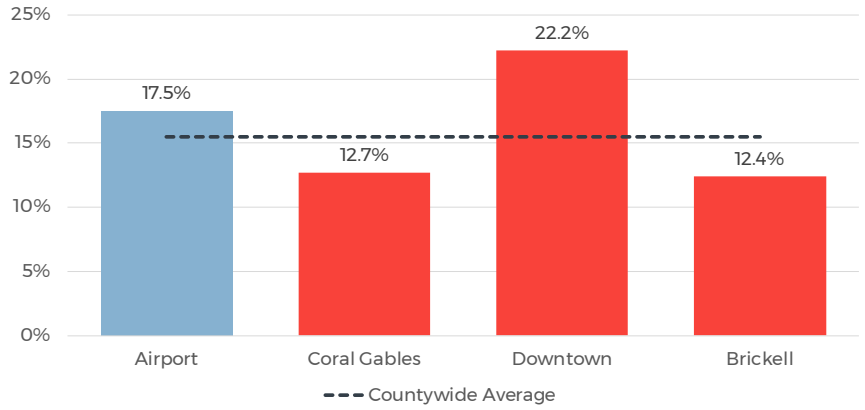


Source: WSP, 2020 Global Occupier Sentiment Survey, CBRE Research

Local Office Market Conditions

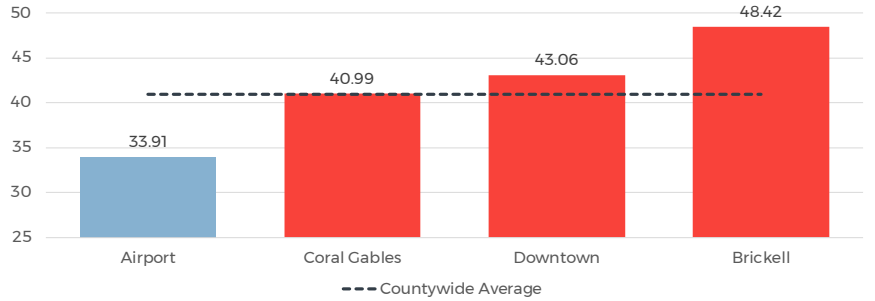
The corridor's office inventory is characterized by lower-density, suburban formats, relative to the primary market office destinations of Downtown Miami, and Coral Gables. Figure 4-11 shows that the Airport sub-market's vacancy rate is relatively high compared to the market average. Figure 4-12 also shows that the Airport sub-market has an average asking rent of $33.91, which is a discount to other office destinations and the county-wide average. Combined with the high vacancy rate, this indicates somewhat weak current market conditions for new office development.

Figure 4-11: VACANCY RATE (%), MIAMI-DADE OFFICE SUB-MARKETS – ALL CLASSES, Q2 2020



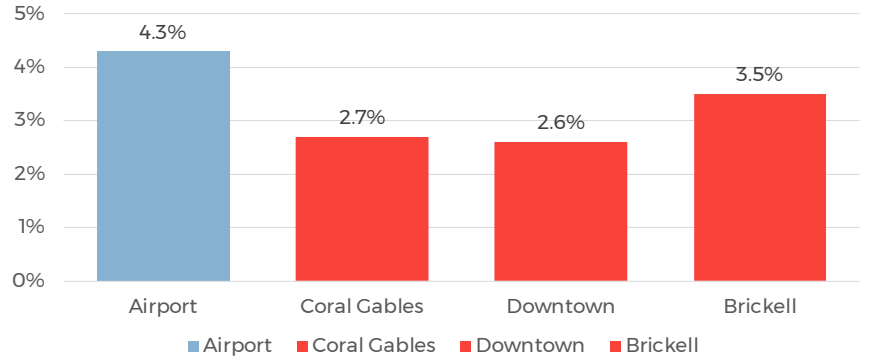
Source: WSP, Newmark Group, Inc.

Figure 4-12: AVERAGE ASKING RENT / SF, MIAMI-DADE OFFICE SUB-MARKETS – Q2 2020



Source: WSP, Newmark Group, Inc

Figure 4-13: AVERAGE ANNUAL GROWTH RATE OF CLASS A RENT / SF, 2015 - 2019



Source: WSP, Newmark Group, Inc.

Although achievable rents in the Airport sub-market are at a significant discount to other core office areas, strong relative growth in Class A rents in recent years suggest that it is evolving as an office destination. From 2015 to 2019, average class A rents in the Airport sub-market increased by 4.3% annually, outpacing the Downtown (2.7%), Brickell (2.6%), and Coral Gables (3.5%) annual averages over the same period, as shown in Figure 4-13.

Flexible Office Trends

Flexible office space is a growing niche that has the potential for accelerating demand growth as office tenants look for more agile solutions for workers. The Miami market currently houses just under 2 million square feet of flexible office space, as shown in Table 4-7. Although this represents just 4% of the total office market, it has grown rapidly from 500,000 square feet in 2014. Over the same period, the total inventory across the U.S. and Canada has increased from just over 20 million square feet in 2014 to approximately 90 million square feet in 2020.

About a quarter of this inventory is concentrated in the Brickell sub-market, and out of 39 total operators, WeWork is the largest in the market controlling about 30% of the flexible office inventory (589,000 SF) in 6 different locations. The largest office space operators are shown in Figure 4-14.

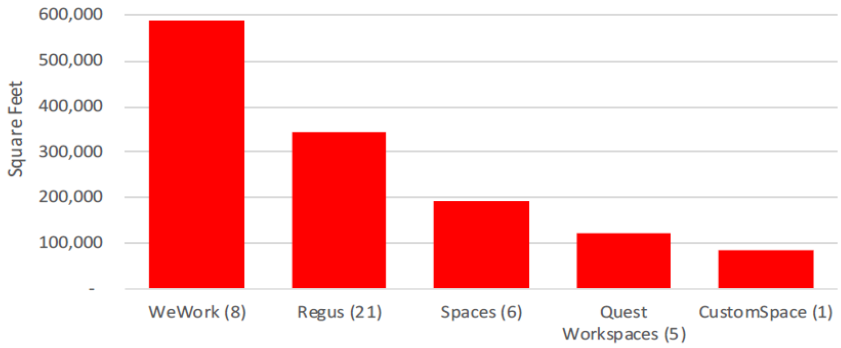
As this category continues to increase its market share of office inventory, and as tenants seek more flexibility and agility to support the rapidly evolving needs of the office-using workforce, it may be a viable format for offices along the corridor.

Table 4-7: SUMMARY OF MIAMI FLEXIBLE OFFICE MARKET INVENTORY

TOTAL FLEXIBLE OFFICE SPACE	1,956,000 SF
# OF OPERATORS	39
# OF LOCATIONS	90
AVERAGE SIZE OF LOCATION	21,700 SF
SINGLE OFFICE / SUITE RATES	$380 - $580

Source: WSP, CBRE

Figure 4-14: FLEXIBLE OFFICE SPACE OPERATORS BY SIZE (AND TOTAL LOCATIONS IN PARENTHESES), MIAMI, Q2 2020



Source: WSP, CBRE

Limited, "Experiential" Retail Opportunity

Both supply and demand conditions are weak for retail potential along the corridor and suggest that retail should be a complementary use relative to multifamily residential and commercial office use. The retail industry is rapidly evolving due to the increasing shift of spending online, which has forced major national retailers to close thousands of stores across the country. In this challenging market environment, the most successful retailers have adapted by shifting their in-store focus to "experiential" retail. Experiential retailing can take on several meanings, but in the most general sense it takes the customer experience beyond a simple purchase of goods by incorporating hands-on experiences. Some businesses, such as restaurants and art galleries, are already experiential by definition. Designing the station areas in a way that attract and support retail tenants who delight shoppers with a proven experiential plan will draw demand, increase success, reduce turnover, and reduce overall station area development risk.

Industrial Land Use

As the population of Miami-Dade County continues to increase, so does the total commercial activity, yet the total amount of industrial land available to support this commerce has lagged due to the typical development pattern of existing industrial land being converted to other land uses which produce more tax revenue. At the same time, the shift towards e-commerce caused by the Covid-19 pandemic has increased the need for warehouse and distribution space. These forces have put industrial land at a premium, and according to a CBRE market report, industrial land in the Airport sub-market has a vacancy rate of only 4% as of Q1 2021, even lower than the county average of 4.8% for industrial land. Additionally, this is the only sector which was not negatively effected by the Covid-19 pandemic, making it clear that there is a strong appetite for additional industrial square footage in the corridor. There is no need to determine an upper threshold for industrial square footage, as the land within the project area which would be suitable for industrial land use is highly limited.

4.5 STATION AREA LAND USE SCENARIOS: BASE CASE

Market-driven station area build-out scenarios include a Base Case and Build Case development forecast. The Base Case build-out scenario assumes no delivery of the BRT system and therefore no station area TOD opportunity. However, the proposed transit improvements in the Build Case would create an opportunity for infill TOD that would serve to catalyze redevelopment on vacant and/or underutilized parcels in the defined station areas. By comparing these two scenarios, the forecasted impact of the proposed development can be quantified, in an effort to maximize the capacity of potential stations for new jobs, housing, and commercial development.

The Base Case forecast of long-term household and employment growth, shown in table Table 4-8, assumes minimal development potential because the built-out nature of the corridor means that redevelopment of existing structures is unlikely without a catalyst. Using SERPM forecast data for the station areas, Base Case forecast household growth is approximately 50 units per year for all four station areas combined. Annual demand for new office and retail adds up to approximately 6,000 square feet per year for all four station areas combined as well.

SERPM forecast data shows little change in households and employment in the station areas and assumes that the majority of station area land is already built out and that growth will take place in other areas. The Base Case incorporates forecast data for transportation analysis zones (TAZs) within a quarter mile of the proposed station area locations.

Table 4-8: SUMMARY OF ANNUAL COMMERCIAL AND RESIDENTIAL DEMAND POTENTIAL – ALL STATIONS

	ANNUAL DEMAND (ALL FOUR STATION SITES)
Residential (Units)	50 units
Commercial (SF)	6,000 SF

Source: WSP, Miami-Dade TPO

4.6 STATION AREA LAND USE SCENARIOS: BUILD CASE

The Build Case assumes that the implementation of BRT will be a strong catalyst for TOD potential. In terms of station area development potential, the Build Case assumes the station areas capture more than their fair share of forecast growth. Unlike the Base Case, which uses forecast growth in the TAZs immediately surrounding each station area, the Build Case allows the station areas to capture a share of future growth that is forecast to take place within a half-mile buffer along the corridor. While there is a total amount of growth allocated to this broader area surrounding the corridor, the addition of BRT will make these station areas far more competitive with respect to capturing future demand.

4.6.1 RESIDENTIAL DEMAND

The methodology for determining residential demand is summarized in Table 4-9, and described as follows. SERPM forecast for new household growth along the corridor amounts to approximately 550 new households per year. Additionally, assuming multifamily developments actively marketing new units, some portion of demand from turnover of existing households (renters and/or owners relocating) can be expected as well. Census data on households by income, tenure, and turnover are used to further stratify this pool of demand to inform the mix and positioning of potential units, including market-rate versus income-qualified units and rental versus for-sale. This residential demand analysis suggests very strong depth of demand for TOD product along the corridor, as shown in Table 4-10.

Table 4-9: RESIDENTIAL DEMAND METHODOLOGY

CORRIDOR RESIDENTIAL ANALYSIS INPUTS	SOURCE	NOTES/RESULTS
Net new household growth	SERPM	550 new households per year; 2020 – 2040
Stratified by income bracket / housing cost	ACS	Yields approximate share of affordable vs. market rate
% Renter vs. owner propensity by income	ACS	Informs potential mix / positioning
+		
Demand from turnover of existing households	SERPM	70,000 existing households
Stratified by income, tenure, and turnover rate by tenure	ACS	Annual turnover of 32% of renter HHs and 10% of owner HHs
Conservative station area capture rates		~7% of rental demand and 5% of for-sale demand

WSP, Miami-Dade TPO, U.S. Census Bureau

Table 4-10: BUILD CASE RESIDENTIAL DEMAND

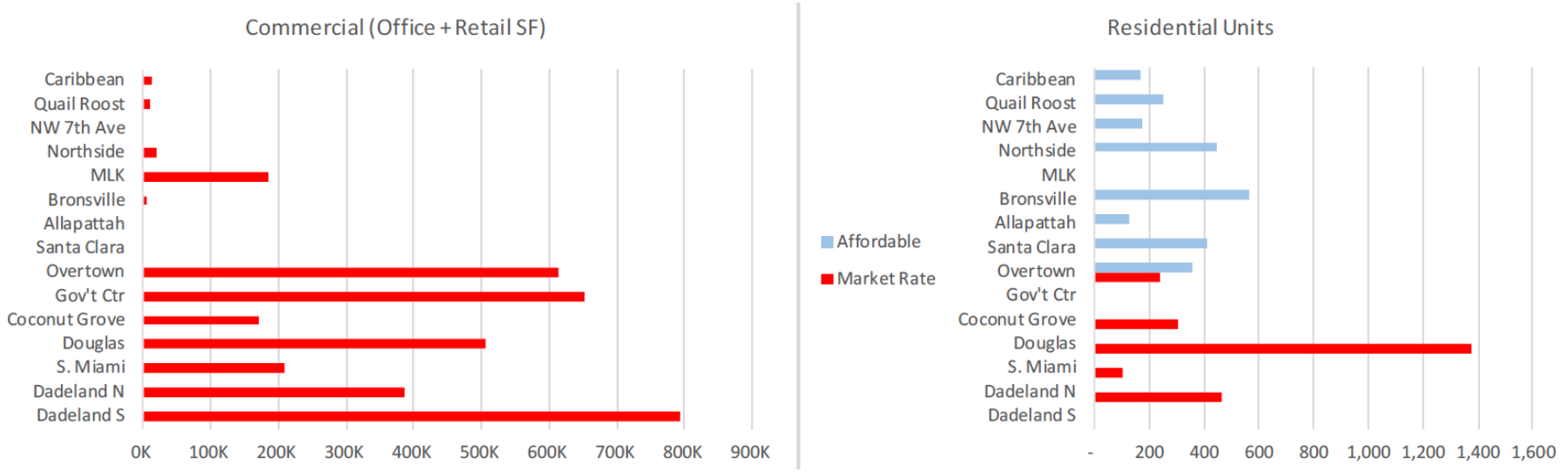
DEMAND	RESULTS
Corridor Annual Demand Potential	800 rental; 200 for-sale units
---Per Station Area (/4)	200 rental; 50 for-sale units
10-year Cumulative Demand	8,000 rental; 2,000 for-sale
---Per Station Area (/4)	2,000 rental, 500 for-sale
Affordable vs. Market Rate	60% affordable 40% market rate

MIX OF AFFORDABLE AND MARKET-RATE HOUSING

TOD station areas represent unique opportunities to deliver affordable housing paired with affordable transportation costs. Due to an ongoing lack of housing supply in the county, which elevates prices, a very large percentage of households are classified as rent burdened. The department of Public Housing and Community Development (PHCD) has a significant wait list for their housing program, and studies indicate that there is an unmet affordable housing need of 50,000 units in the City of Miami alone. There is strong depth of future demand for both market-rate and affordable residential units along the corridor, and the station areas are well positioned to capture this demand.

Miami-Dade County has a strong track record of delivering TOD. On the commercial side, there is currently 2.8 million square feet of TOD office and 800,000 square feet of retail space. There is also 5,000 residential units, about half of which are market-rate units, 1,900 are affordable units, and the balance comprised of senior housing and workforce housing. While this is a robust inventory and mix of commercial and residential TOD uses, the vast majority of commercial space and market-rate units have been delivered in the area south of the East-West Corridor (beginning with the Overtown Metrorail station), in areas with strong pre-existing real estate market conditions. Historically, residential TOD has consisted of either market-rate units delivered in strong market conditions to the south, or subsidized units delivered in weaker market conditions to the north, with very little diverging from this pattern, which is clearly illustrated in Figure 4-15. With the exception of the Overtown Transit Village & MiamiCentral development, no station area has a strong mix of both market-rate and affordable uses. The East-West Corridor represents a perfect opportunity to deliver a mix of both categories of uses.

Figure 4-15: COMMERCIAL AND RESIDENTIAL TOD INVENTORY BY STATION AREA, MIAMI-DADE COUNTY, 2020



4.6.2 COMMERCIAL DEMAND

The office demand forecast is based on employment growth in office-using employment categories. The average annual growth for this corridor is expected to be approximately 300 workers per year. This results in annual corridor office demand of about 50,000 square feet, or a cumulative 5-year demand of around 250,000 square feet in the corridor. The 5-year cumulative demand ranges from 200,000 to 300,000 square feet depending on employee density.

Retail growth in the corridor is expected to be limited, as retail continues to transform in reaction to the growth of online sales. With multiple malls already located along the corridor and retail shopping changing from a necessity to a choice, it is unlikely that unmet demand will drive new retail development. Rather, new retail construction is expected to take place primarily as a complimentary feature in mixed-use developments; therefore estimates for future retail demand are based on the estimates for residential and office development.

4.6.3 STATION ALLOCATION

The demand potential described above reflects TOD market potential at the corridor level. To arrive at appropriate station area build-out scenarios, this corridor-wide market potential was further allocated based on each station area's relative locational strengths, weaknesses, and opportunities for new commercial and residential development. The rationale for each station area market potential is described in the following sections.

NW 107 Avenue

This station area has the strongest real estate market, and therefore the greatest potential to attract high rents for market rate housing and commercial spaces. This is also the location with the most land available for a potential TOD vision, with a very large vacant parcel to the north-west of the transit station, and International Mall presenting the opportunity for adaptive re-use or complete redevelopment as it continues to age and face the challenges of a post-covid economy. The scale of these opportunities makes this station area a viable opportunity for major development in the form of walkable, mixed-use urbanism.

- Residential: This is the most attractive site for market-rate housing, but the scale of the site also presents a major opportunity for affordable housing due to the scale and proximity to blue-collar employment in the Doral industrial area. The recommended solution is to leverage expanded development rights in exchange for the inclusion of affordable housing.
- Office: To promote reverse-commuting patterns and take advantage of the expected future growth in hybrid/flexible office space illustrated in Figure 4-17, the recommendation for this site is to include a large quantity of office space.
- Retail: This is the primary location for retail along the corridor. Given the amount of existing nearby competition, this retail will have to leverage the walkable mixed-use character of the TOD, as opposed to indoor malls or drive-up retail which already exists in abundance in the immediately surrounding area.

NW 97 Avenue

This station area is similar to 107th avenue, but smaller and with less retail affinity. The presence of the car dealerships along 12th street, and the potential to develop within MDX right-of-way present unique opportunities and challenges.

- Residential: 97th Avenue represents an attractive station area for market-rate housing, although it is also adjacent to a major concentration of blue-collar employment. A mixed-income residential component would be suitable for this location with a potential 1:1 ratio of subsidized to unsubsidized housing.
- Office: To promote reverse-commuting patterns and take advantage of the expected future growth in hybrid/flexible office space illustrated in Figure 4-17, the recommendation for this site is to include a large quantity of office space.
- Retail: While Dolphin Mall has healthy occupancy, Miami International Mall is at risk of adaptive re-use. There is capacity for a different type of retail at this location, focused on entertainment similar to Doral Cityplace.

NW 7 Street

This location's positioning at the intersection of two highways makes it the most accessible station area to the rest of the county.

- Residential: The accessibility to diverse employment opportunities makes this site logical for both market-rate and affordable housing. Surrounding land uses do not make this site as attractive for market rate units compared to the 97th Avenue and 107th Avenue station areas. A mixed-income residential component is suitable for this location, with a roughly 2:1 ratio of subsidized to unsubsidized housing.
- Office: The strong accessibility and fast highway access also make this station area potentially compelling for office uses. The previously discussed shift from traditional office space to flexible or shared office spaces which employees would travel to less frequently, combined with the accessibility of this site make it a strong opportunity for this function. However competition from the Blue Lagoon office area means that office development here would likely be competing for tenants, reducing the forecast absorption rate and therefore shrinking the recommendation for office development at this site as well.
- Retail: Due to the lower-traffic / lower-visibility nature of this site, retail potential is limited and should primarily be used as an amenity geared towards supporting / complementing other uses.

NW 42 Avenue

- Residential: Due to somewhat weaker surrounding land uses, this site is not as attractive as the other sites for new market-rate housing. However, it does provide an opportunity for affordable housing that would benefit from close proximity to major employment concentrations.
- Office: Because this station area is conveniently located between the three largest business centers in the county, it is an attractive central location for meeting spaces or business travelers, indicating potential for a relatively large amount of office use.
- Retail: 42nd Avenue is a busy commercial corridor, and therefore any retail at this site should be full the frontage on 42nd Avenue.

Land Use Distribution

The qualitative analysis of land use distribution discussed in the previous section is quantified in Table 4-11, and visualized in Figure 4-16 and Figure 4-17.

Table 4-11: 5-YEAR CUMULATIVE DEMAND POTENTIAL BY STATION AREA AND LAND USE

	RESIDENTIAL (UNITS)	OFFICE (SF)	RETAIL (SF)	TOTAL AREA (SF, APPROXIMATE)
107th Avenue	2,600	120,000	350,000	2,680,000
97th Avenue	600	20,000	27,000	557,000
7th Street	1,200	60,000	54,000	1,134,000
42nd Avenue	600	100,000	92,000	702,000

Figure 4-16: 5-YEAR CUMULATIVE DEMAND POTENTIAL BY STATION AREA

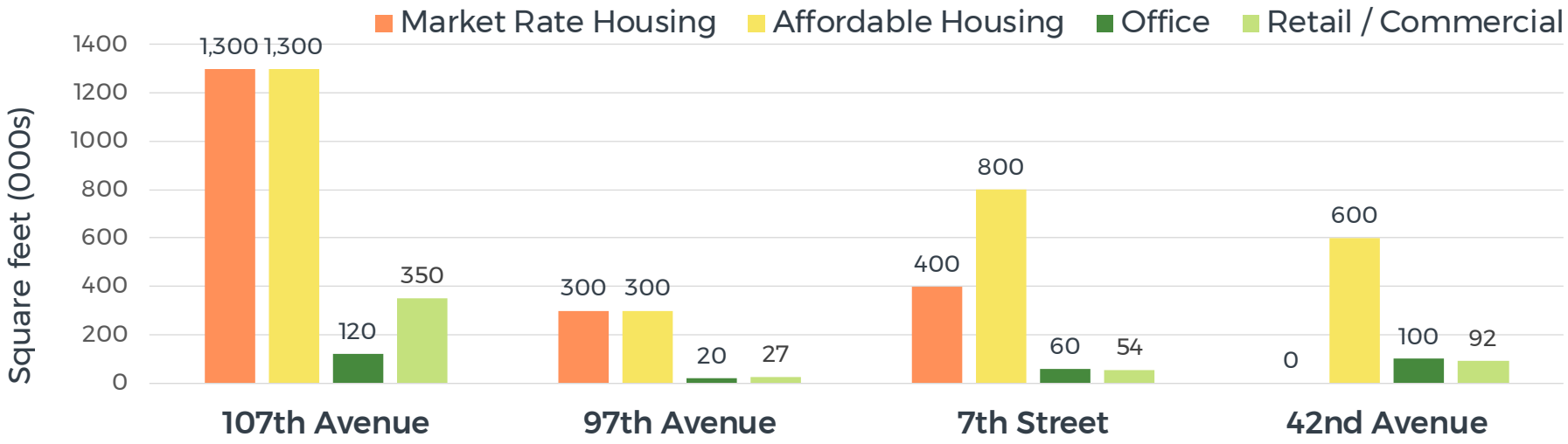
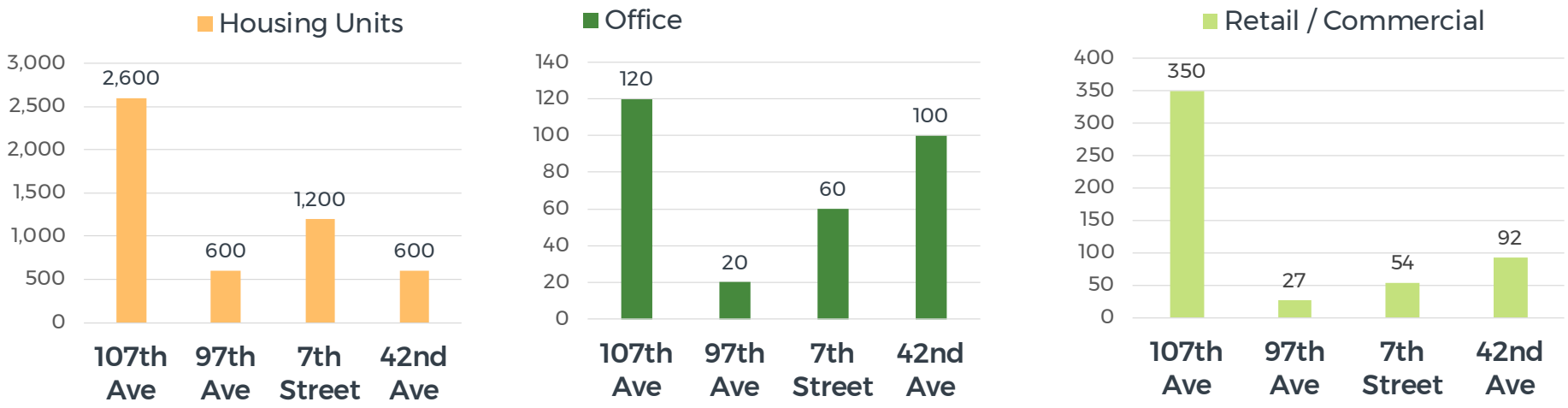


Figure 4-17: 5-YEAR CUMULATIVE DEMAND POTENTIAL BY LAND USE



5 STATION AREA EXISTING CONDITIONS

5.1 INTRODUCTION

The BRT station areas in the East-West Corridor are defined as the area within one half-mile of the station site. Four station areas were selected by the Miami-Dade County Department of Transportation and Public Works (DTPW) and the Department of Regulatory and Economic Resources (RER) for focused planning work.

This chapter introduces the existing conditions of the selected station areas, with analyses of physical and regulatory context, roadway access, pedestrian connectivity, and flood zones. The goal is to identify constraints and opportunities in the selected station areas and develop strategies to promote walkable, compact development with a mix of residential, office, and retail uses near transit stations to support ridership and spur economic growth. A thorough understanding of station area existing conditions is critical for shaping TOD design strategies and policies that can increase transit access, enhance multimodal connectivity, and encourage potential mixed-use development in each station area.

SR-836, also known as the Dolphin Expressway, forms a barrier that divides the East-West Corridor into halves. Industrial and commercial uses dominate the north half of most station areas along the expressway, whereas the southern neighborhoods are primarily residential, with corridors of commercial activity along major arterial roads such as NW 7th Street. The limited connection between the two halves poses a challenge across most of the station areas. The role of each station area is unique and varies based on the existing and planned development projects in adjacent neighborhoods. For example, the NW 107th station area serves regional retail and service markets. The NW 97th station area involves an employment center. The NW 7th Street station area provides a neighborhood mixed-use center and additional residential unit types. The NW 42nd Avenue station area presents an office and hospitality center. The four focused station area's existing conditions are detailed in the following pages.


STOP
Fairway
Lakes
Villas


macy's

5.2 NW 107TH AVENUE STATION

The NW 107th Avenue Station is proposed in the median of the Dolphin Expressway at the interchange with NW 107th Avenue, near Dolphin Mall and International Mall. This station area includeswith two municipalities: Sweetwater to the west and Doral to the north and east.

The transit station neighbors two regional attractors. Dolphin Mall to the northwest opened in 2001 and gained popularity with local shoppers and international visitors. The International Mall at the northeast corner is currently exploring renovation and redevelopment opportunities as a commercial and entertainment attraction. On the other hand, the station area also presents an abundance of vacant or under-developed land that has recently drawn investment and redevelopment interest.

Connectivity is a challenge in this station area, especially for pedestrians and cyclists. Although the commercial centers are within walking distance from the proposed station, inadequate pedestrian facilities and the lack of pedestrian-scaled urbanism can reduce the desirability of walking in Miami's climate.

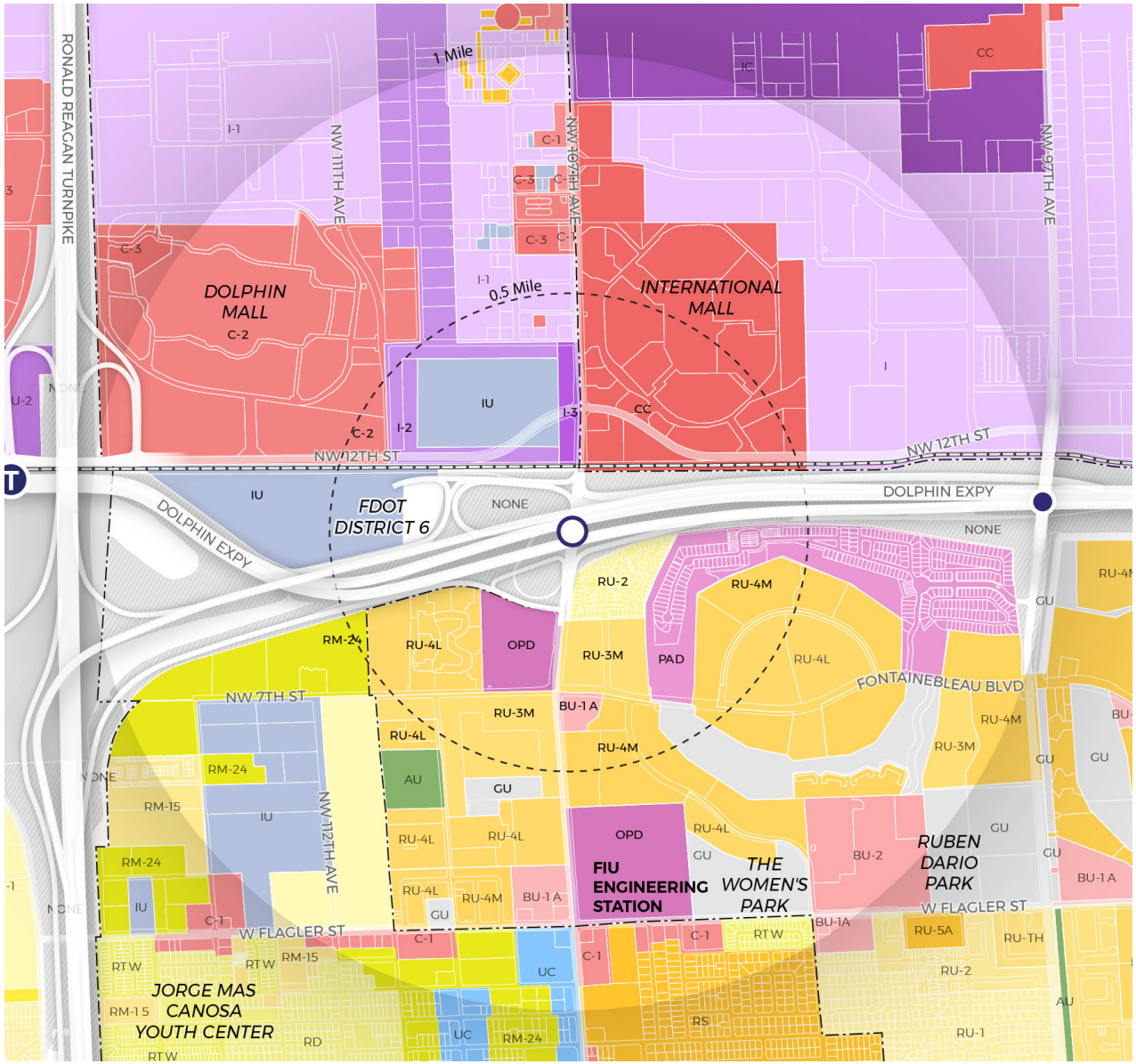
5.2.1 STATION AREA CONTEXT

Land Use

The highway, with its bridges and looping ramps takes up nearly a quarter of the land within this station area, dividing the area into two distinct districts. In the north, Dolphin Mall, International Mall, their outparcels, and surface parking areas occupy the majority of land. Florida Department of Transportation (FDOT) District 6 headquarters is situated to the west of the highway exit ramp, and south of the CSX railroad. Large Vacant land parcels are also located the west of NW 107th Avenue, taking up about 20% of the total station area, including a 50-acre parcel that stretches between NW 111th Avenue, NW 107th Avenue, NW 12th Street, and NW 14th Street. The remaining north half of the station area includes smaller industrial and office uses like public storage and Adler Realty Services.

All residential uses within the station area are on the south side of Dolphin Expressway, consisting of medium-density multi-family communities with private green spaces, such as the Laguna Club Condominium, and low-density single-family houses like Fairway Lake Village. Enclosed by the residential neighborhoods, Lennar Corporation holds the most significant office property within half-mile from the station, fronting NW 107th Ave.

Figure 5-1: NW 107TH AVENUE STATION AREA ZONING MAP



LEGEND

- Focused BRT Station
- Other BRT Station
- BRT Terminal
- Jurisdictional Boundary

Table 5-1: NW 107TH AVENUE STATION AREA ZONING

Jurisdiction	Zoning	Description	Percentage Share within 1/2 Mile
Miami-Dade County	BU-1A	Business District, Limited	0.9%
	GU	Interim District-Uses	0.9%
	PAD	Planned Area Development	6.9%
	OPD	Office Park District	3.9%
	RU-2	Minimum Apartment House	3.2%
	RU-3M	High Density Apartment House District	8.4%
	RU-4L	Limited Apartment House District	8.1%
	RU-4M	Modified Apartment House District	7.9%
	NONE	Right of Way	8.6%
City of Doral	CC	Corridor Commercial District	16.3%
City of Sweetwater	C-2	Special Commercial District	1.3%
	I-1	Industrial Light Manufacturing District	2.7%
	I-2	Industrial Heavy Manufacturing District	4.5%
	I-3	Industrial Conditional District	1.5%
	IU	Interim Use District	10.6%
	RM-24	High Density Multifamily Residential District	0.3%
	NONE	Right of Way	14.0%

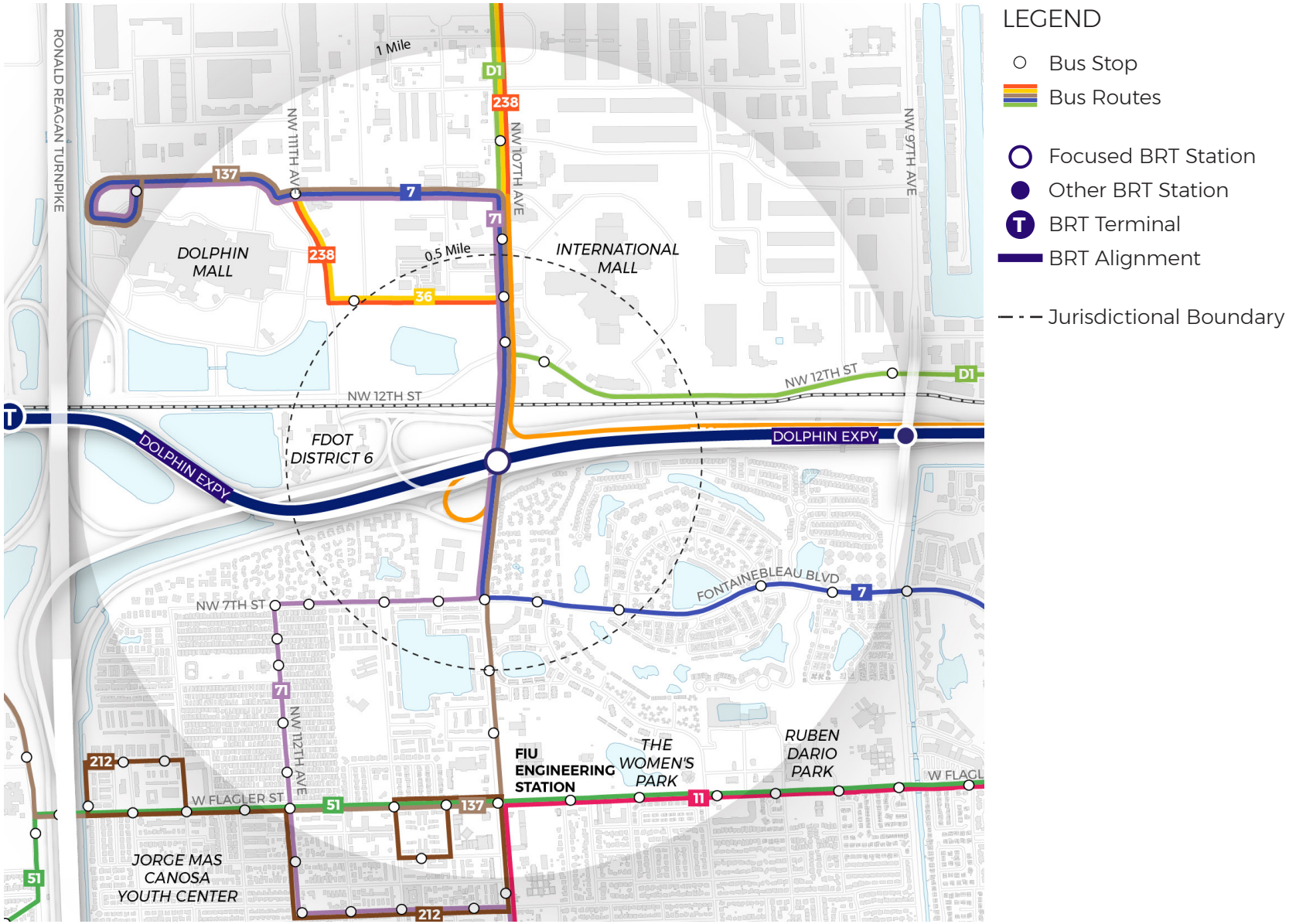
Zoning

The NW 107th Avenue station area zoning generally reflects the current and future land use. The detailed zoning categories vary among municipalities. Figure 5-1 and Table 5-1 on the left show the zoning map and zoning district descriptions in the station area grouped by municipalities. Corridor Commercial Districts are clustered in the northeast where the international mall and other strip malls sit. Residential districts are all zoned to the south of SR-836, including two-family residential (RU-2) and apartment houses with different requirements (RU-3M, RU-4M, RU-4L). The government property and the central part of the vacant land are zoned for Interim District-Uses in Sweetwater, the allowed uses of which mainly include single-family residential. The area on the periphery of the largest vacant parcel is zoned as heavy manufacturing and conditional industrial area. In order to utilize the vacant land for TOD, zoning amendments is recommended to allow denser development and mix of uses.

FEMA Flood Zone and Stormwater

About half of the station area falls in the 100-year floodplain delineated by FEMA in 2015. Most is along the Dolphin Expressway, to the west of NW 107th Avenue, or around existing retention ponds, including the vacant site next to the new transit station with the largest retention pond in the NW 107th station area. The rest is covered the 500-year flood zone. On-site ponding remains an issue with pools of water spread around the region. Green infrastructure with open space accommodating the existing retention ponds is key to enhancing resiliency in the area.

Figure 5-2: NW 107TH AVENUE STATION AREA TRANSIT ELEMENT MAP



5.2.2 CONNECTIVITY

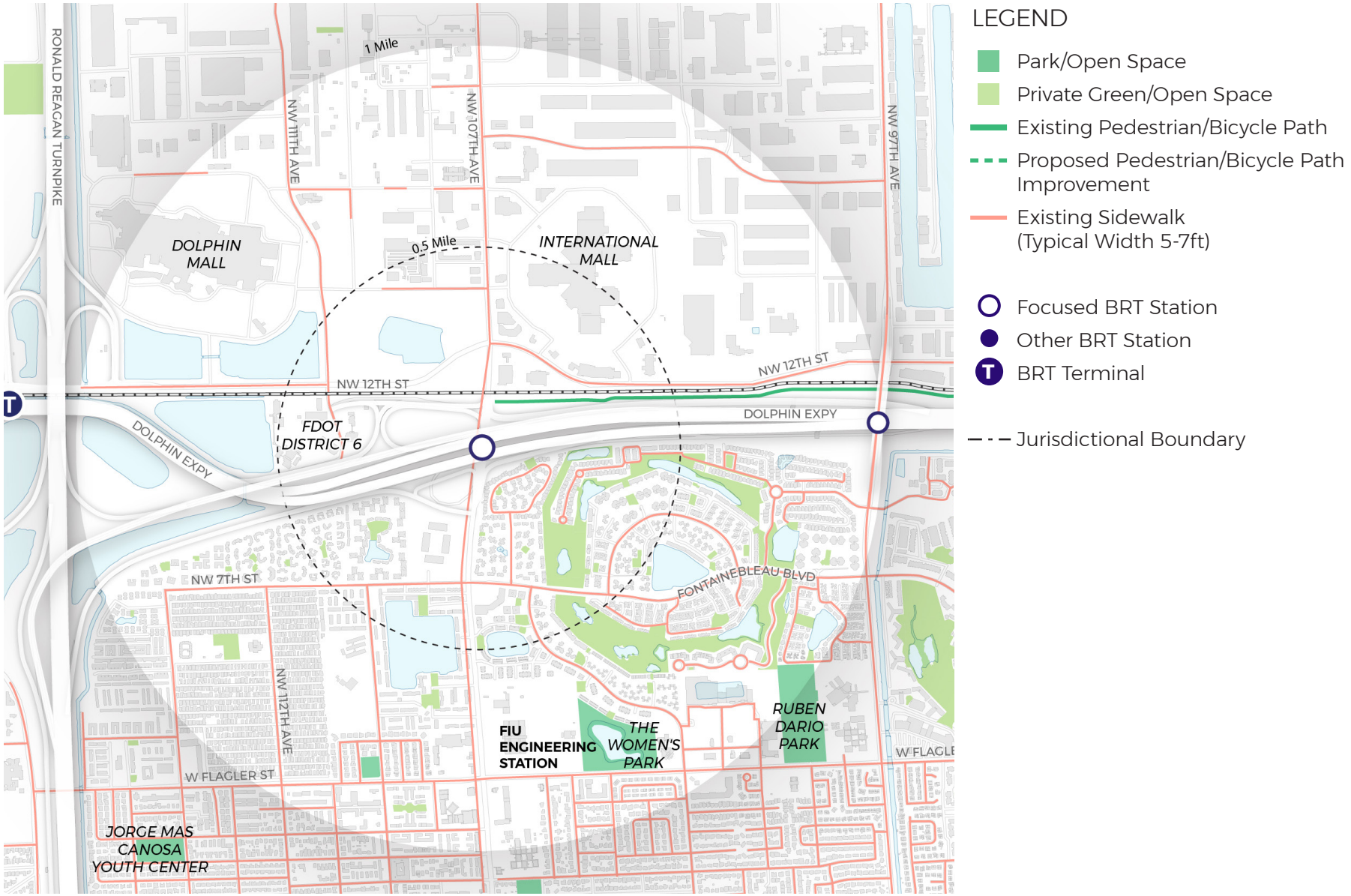
NW 107th Avenue, an eight to ten lane wide arterial, serves as the only north-south connection within the station area. The avenue provides a significant link between the cities of Doral and Sweetwater in the north with the residential neighborhoods and Florida International University (FIU) in the south. The Dolphin Expressway crosses over 107th Avenue with three bridges and interchanges with NW 107th Avenue through a loop ramp on each side. This grade-separated highway junction keeps a distance of up to 1,600 feet between neighborhoods on either side, and poses a remarkable challenge to the accessibility of the proposed transit station. Additionally, the east-west CSX cargo railroad and the lack of pedestrian and bike infrastructure exacerbate connectivity issues and might further limit access to transit systems.

Transit Network

As shown in Figure 5-2, NW 107th Avenue station area contains the following transit routes:

- DTPW Metrobus Route 7 – stops at NW 12th Street, NW 14th Street and NW 107th Avenue. This route operates between Dolphin Mall station and NE 1st Avenue.
- DTPW Metrobus Route 36B Dolphin Mall – stops at NW 14th Street and NW 107th Avenue: This route operates from Dolphin Mall to NE 33 Street & Biscayne Boulevard.
- DTPW Metrobus Route 71 – stops at NW 107th Avenue and NW 12th Street, NW 7th Street and 108 Block, NW 7th Street and NW 109th Avenue: This route operates between Dolphin Mall station and Miami Dade College Kendall Campus.
- DTPW Metrobus Route 137 West Dade Connection – stops at NW 14th Street, NW 12th Street, Fontainebleau Boulevard along NW 107th Avenue. This Route operates between Dolphin Mall and SW 211 Street and Southland Mall and serves Tamiami, Kendale Lakes, and Miami Executive Airport.
- Doral Trolley Route 1 – stops at NW 14th Street, NW 12th Street and NW 107th Avenue, TD Bank, Esserman Acura. This route operates between Autonation Chevrolet Doral (NW 89th Ct and 12th Street) and Ibis Villas Station (NW 88th Terrace in Medley).
- Doral Trolley Route 4 - stops on NW 107th Avenue at NW 14th Street and, NW 12th Street. This route operates between Midtown Doral (NW 90th Street and 107th Avenue) and Florida FIU.

Figure 5-3: NW 107TH AVENUE STATION AREA BICYCLE/PEDESTRIAN CONNECTIVITY MAP

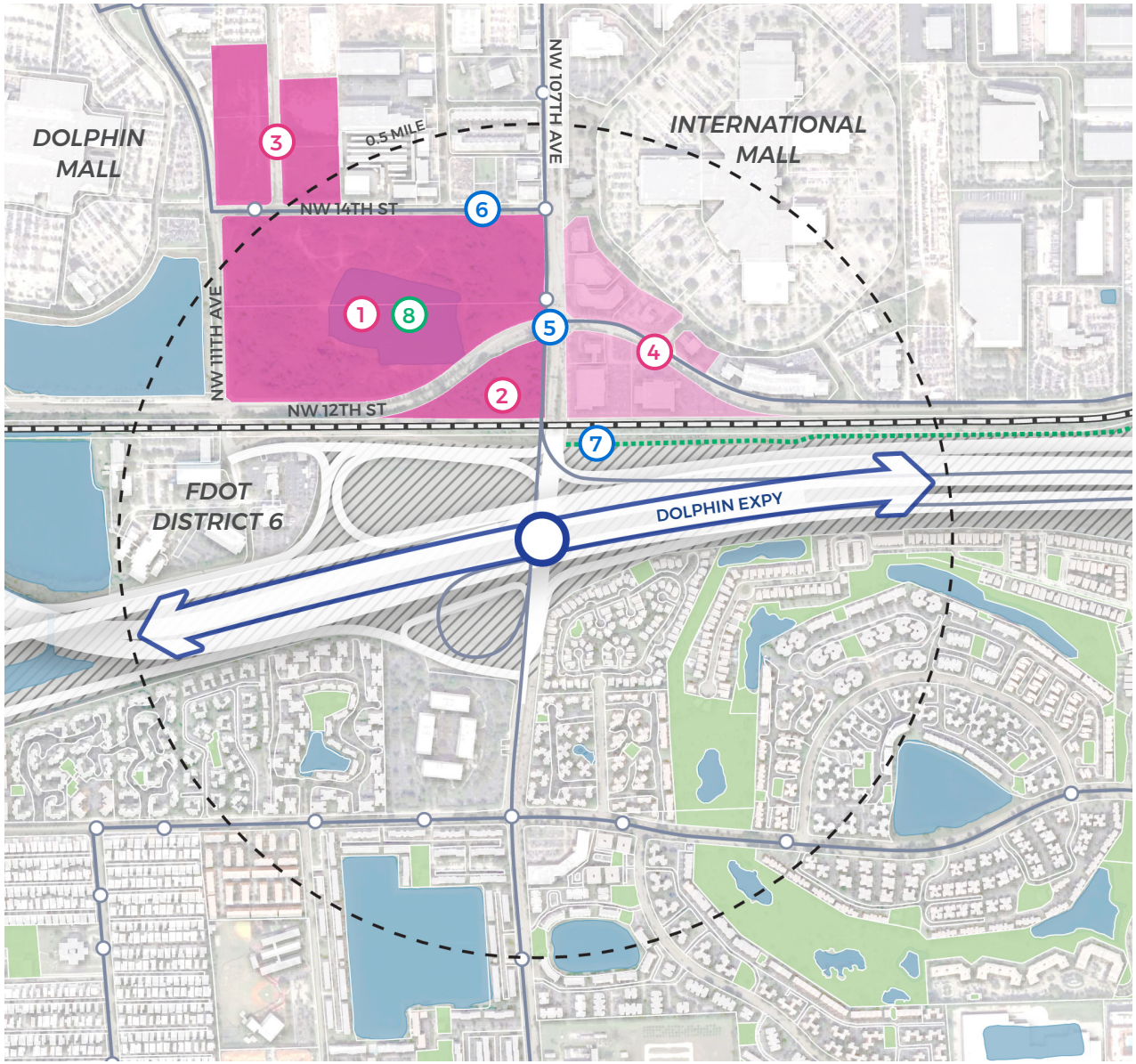


Pedestrian/Bicycle Connectivity

The new transit station location at the interchange of SR836 and NW 107th Avenue has a significant impact on the north-south pedestrian connectivity within the station area. There is about 3,000-feet distance between the two closest access roads to neighborhoods on either side of the highway, an approximately 10-minute walk along NW 107th Avenue and crosses the expressway under the bridges. NW 107th Avenue, the only north-south connection, merely has a 6-foot wide sidewalk on one side of the roadway. Similar sidewalk conditions can be found in other collector roads in the station area.

The distinctive characteristics of the north and south also lie in the roadway networks. The auto-centric northern neighborhoods have few and fragmented pedestrian walkways, leaving no east-west pedestrian connection across NW 107th Avenue. The Kitty Roedel trail, a 10-foot wide multi-use path runs in between the CSX rail and the highway and ends on the east side of the aavenue. Likewise, the sidewalk along NW 12th Street does not extend west beyond the NW 107th Avenue intersection. To the south of SR836, while the single-family houses are linked by driveways with limited pedestrian connections, sidewalk connections are mostly continuous along collector roads and some of the residential roads.

Figure 5-4: NW 107TH AVENUE STATION AREA OPPORTUNITIES AND CONSTRAINTS



LEGEND

- Opportunity Site - Primary
- Opportunity Site - Secondary
- Local Bus Route
- Local Bus Stop
- Multi-use Path

Opportunities:

- # Development
- # Connectivity
- # Open Space

- Focused BRT Station
- Other BRT Station
- T BRT Terminal

5.2.3 OPPORTUNITIES

The NW 107th Avenue station area is located adjacent to a future metropolitan urban center as defined in the County's Comprehensive Development Master Plan (CDMP). Along with the future transit line station, the area is planned to have access to mass transit, multimodal facilities, and well connected roadway networks. Several opportunities are identified in the station area, including but not limited to:

1. The vacant site which stretches between NW 107th Avenue and NW 111th Avenue is about 50 acres large and is designated for business and office uses in the CDMP. This is identified as one of the primary development sites.
2. The smaller land parcel bounded by NW 12th Street, NW 107th Avenue and the railroad is the closest vacant land to the new transit station, also designated for business and office uses in CDMP. With the future station, this site can be optimized and developed into the highest and best use.
3. The vacant parcels are clustered in the north and can be aggregated to a larger land property for additional development.
4. The northeast corner of the station is dominated by one-story retail buildings mostly from the 1980s and early 1990s. These sites have the potential to be redeveloped in the long term, and can form a transit gateway with the neighboring development site as a part of a larger TOD vision.
5. The identified development sites are situated by the intersection of two arterial roads, NW 107th Avenue and NW 12th Street, linking the station area to the nearby employment centers, residential neighborhoods, and the Dolphin station on the west.
6. The NW 14th Street runs in between the identified development sites and links straight to the Dolphin Mall on the west and International Mall on the east.
7. Kitty Roedel Bicycle Path starts at NW 107th Avenue and extends to the east providing the only off-street pedestrian/bike connection in the station area. The path could be connected and incorporated to establish a pedestrian priority network and enhance multimodal connectivity in the station area.
8. The abundance of vacant land within the station area not only supports potential development, but also provides a possibility to include a major, public green space, which is absent in the station area, and integrate the existing retention pond.

5.3 NW 97TH AVENUE STATION

The NW 97th Avenue Station is proposed on Dolphin Expressway under the NW 97th Avenue overpass, adjacent to an industrial and commercial employment center in Doral. This neighborhood in the north of the station area retains a strong industrial personality. It contains large lot car dealerships and surface parking lots for vehicle storage near the intersection of NW 107th Avenue and NW 12th Street, to name a few, Ocean Mazda, Doral Toyota, and CarMax. The neighborhood also provides low-intensity manufacturing jobs and services in the older industrial and retailing district in the northeast corner of the station area, situated next to a large retention pond with canals extending to manufacturing areas further north. Fontainebleau neighborhood borders the station in the south and contains predominantly residential with private green spaces and small, sporadic water bodies. The NW 97th Avenue bridge provides the only connection for both vehicles and pedestrians from the neighborhoods to the transit station.

5.3.1 STATION AREA CONTEXT

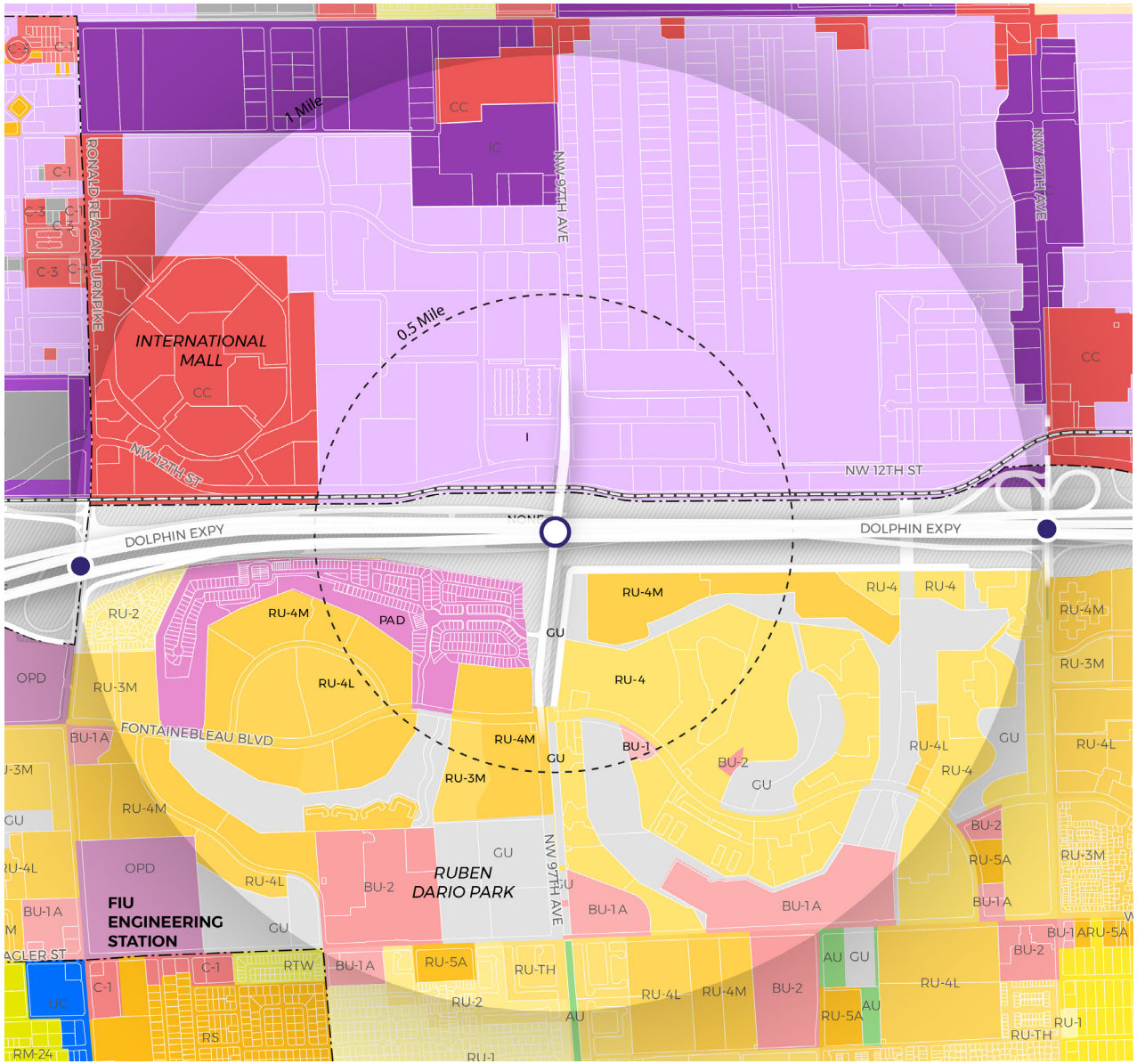
Land Use

The station area is separated into two contrasting neighborhoods by SR-836 with a right of way that accounts for about 21.5% of the half-mile buffer area around the station. The northern portion of the station area lies within the City of Doral, and is entirely industrial land use. The northeast corner of the station area is designated as a "Community Mixed-Use" opportunity area in the City of Doral Comprehensive Plan.

A large part of the existing light industrial district was built in the 1970s and 1980s. Tenants include freight services, wholesalers, and equipment suppliers such as Bulbtronics, US Ophthalmic, and Rozen International Marine Supply. Car dealerships are the primary commercial use to the northwest of the station area, often with large surface parking lots fronting 12th street. Dealerships include Doral Toyota, CarMax, and Ocean Mazda, which built a new three-story parking garage in 2019. The vacant land along NW 97th Avenue in the north is already targeted for industrial development.

The area south of Dolphin Expressway is primarily multi-family residential apartment complexes like Doral View and Bleau Fontaine Community. A high-density development, Fontainebleau Milton Apartments, is located at the northeast corner of the intersection of 97th Avenue and Fontainebleau Boulevard. The majority of the development consists of 6-story apartment buildings, with one building reaching 19 floors. The remaining residential area is characterized by low-density, single-family houses and townhomes. While most apartment complexes and developments have their main entrances facing Fontainebleau Boulevard, Doral View and the single-family communities are accessed from 97th Avenue.

Figure 5-5: NW 97TH AVENUE STATION AREA ZONING MAP



LEGEND

- Focused BRT Station
- Other BRT Station
- BRT Terminal

Jurisdictional Boundary

Table 5-2: NW 97TH AVENUE STATION AREA ZONING

Jurisdiction	Zoning	Description	Percentage Share within 1/2 Mile
Miami-Dade County	BU-1	Business District, Limited	0.3%
	GU	Interim District-Uses	4.3%
	PAD	Planned Area Development	10.2%
	RU-3M	Minimum Apartment House	0.6%
	RU-4	High Density Apartment House District	10.7%
	RU-4L	Limited Apartment House District	0.1%
	RU-4M	Modified Apartment House District	11.0%
	NONE	Right of Way	21.5%
City of Doral	I	Industrial District	41.2%

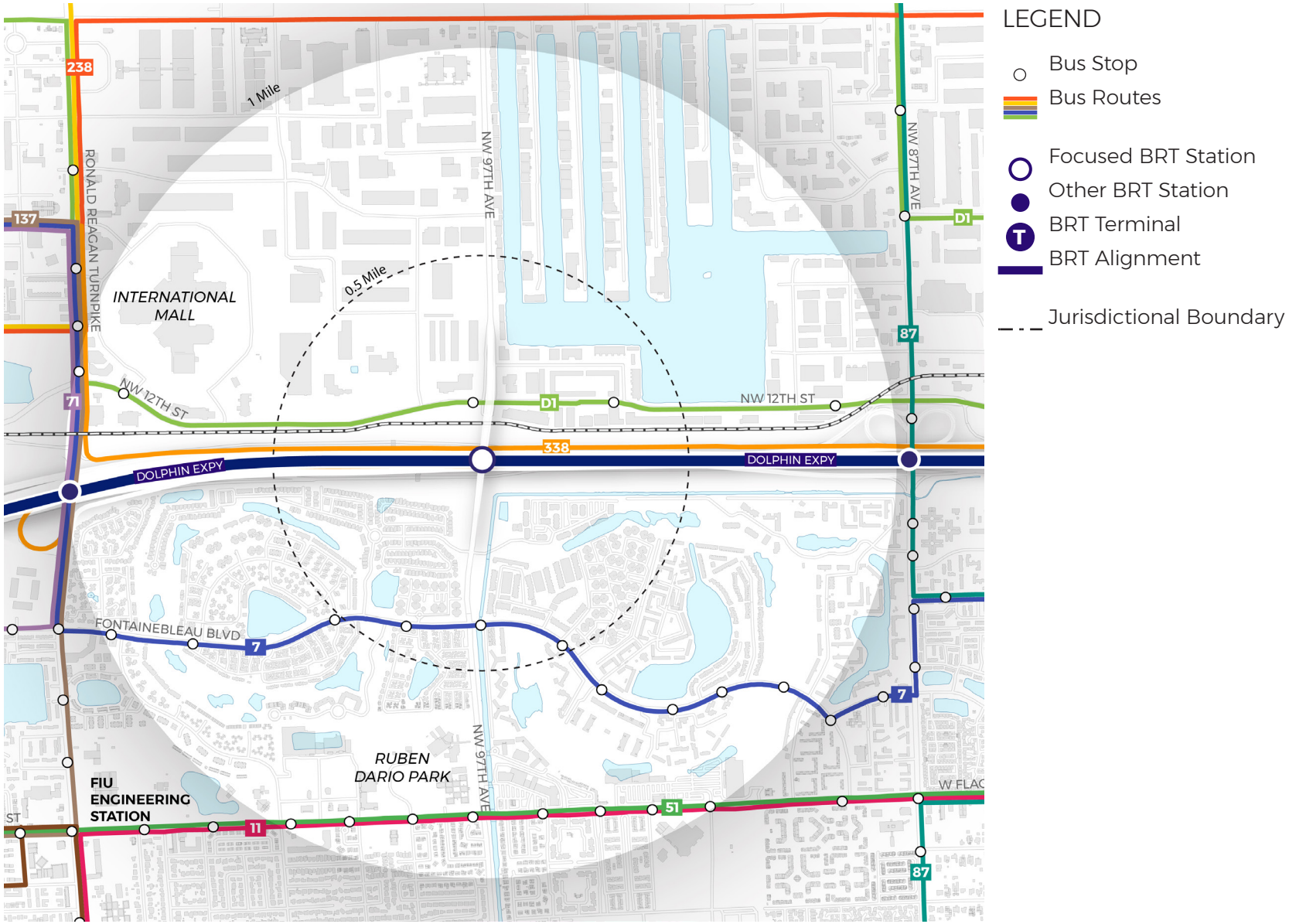
FEMA Flood Zone and Stormwater

Most of the NW 97th Avenue station area falls in the flood zone with a 1 percent annual chance of flood events, especially the northern half. The rest of the station area is in the 0.2-percent-chance flood zone, identified by FEMA in 2015. Permeable open spaces with green infrastructure is essential to the resiliency of the entire station area, but particularly important for the industrial district that borders a large retention pond.

Zoning

Figure 5-5 and Table 5-2 on the left show the 97th station area zoning and percentage share for each zoning district. The land parcels in Doral within a half-mile to the station are all zoned as industrial, taking up about 41.2% of the entire station area. The zoning regulations in the Doral industrial district support and encourage a mix of uses. It allows residential uses, which may consist of live/work components. Other permitted uses include professional offices, warehouses, retail and services, restaurants, educational facilities, indoor farms, and recreational facilities with specified requirements. To the south of the highway, the low density, single-family community in the southwest quadrant is zoned as a Planned Area Development (PAD) with flexibility in planning, design, and development. The rest of the station area is in residential zones RU-3M, RU-4M, and RU-4.

Figure 5-6: NW 97TH AVENUE STATION AREA TRANSIT ELEMENT MAP



5.3.2 CONNECTIVITY

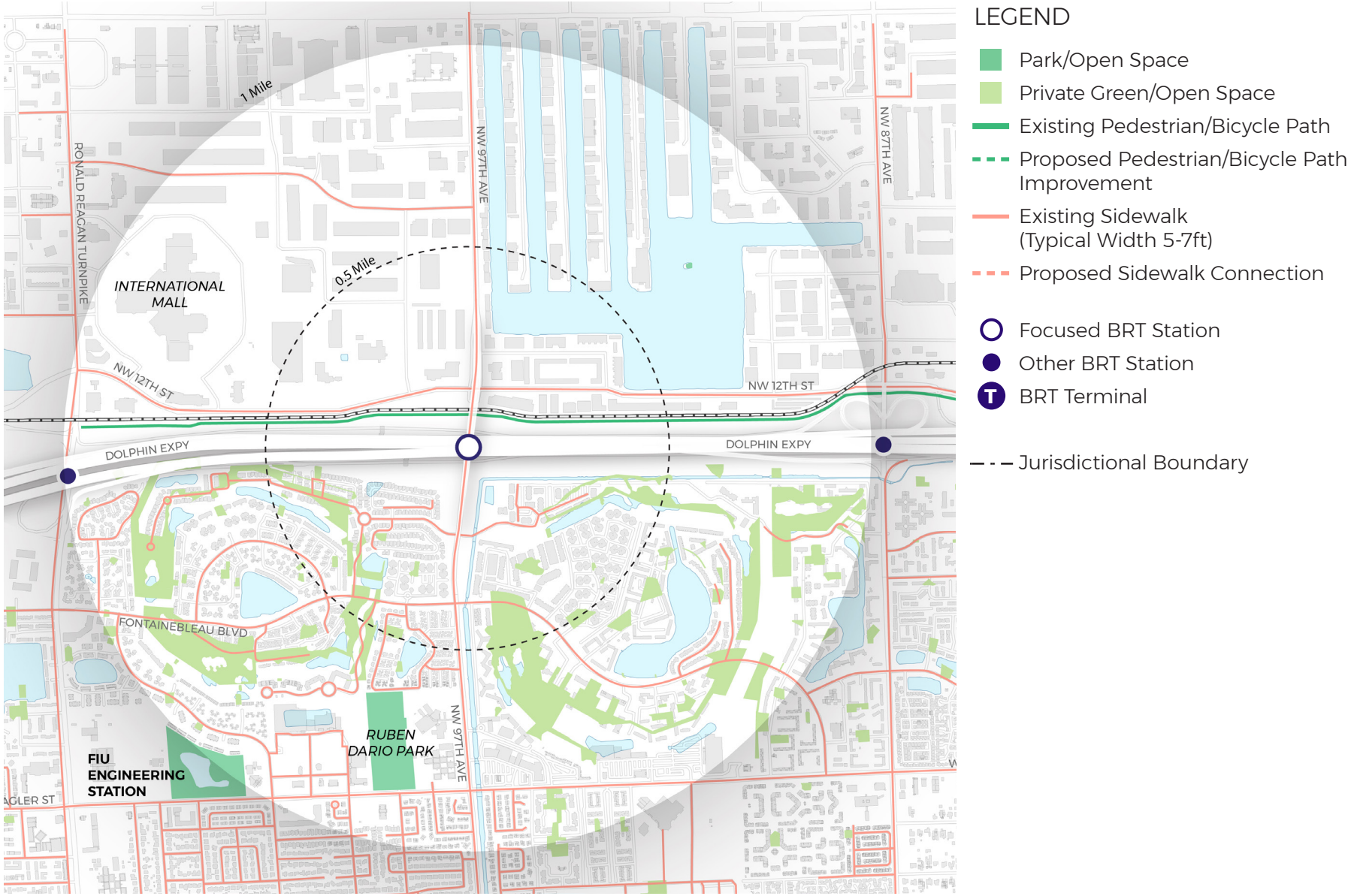
The NW 97th Avenue station area is served by two principal arterial roads: NW 12th Street, which runs east-west to the north of the highway, and NW 97th Avenue, which runs north-south and spans over the Dolphin Expressway, the CSX rail tracks, NW 12th Street, and lands at NW 13th Street. The NW 97th Avenue overpass, with a 10 feet wide sidewalk on one side, is the only north-south connection for vehicles or pedestrians within a mile, and will provide a vertical pedestrian connection to the new transit station located in the median of SR-836. The bridge links the industrial districts in Doral to Fontainebleau Boulevard, which serves as a collector roadway for the residential roads in the neighborhood of Fontainebleau. Meanwhile, NW 12th street and Fontainebleau Boulevard provide the primary east-west connections in the station area with continuous sidewalks and Metrobus lines. Existing and proposed pedestrian connections are illustrated in Figure 5-6.

Transit Network

Figure 5-6 shows the following transit routes, which currently make stops within the NW 97th Avenue station area:

- DTPW Metrobus Route 7 – makes four stops in the station area along Fontainebleau Boulevard: This route operates between Dolphin Mall station and NE 1th Avenue and NE 4th Street station.
- Doral Trolley Route 1 – stops at Toyota Of South Florida at 12th Street and 97th Avenue, and Cafe Lago at 12th Street and 93th Court: This route operates between Autonation Chevrolet Doral and Ibis Villas Station. It also serves International Mall to the west.

Figure 5-7: NW 97TH AVENUE STATION AREA BICYCLE/PEDESTRIAN CONNECTIVITY MAP

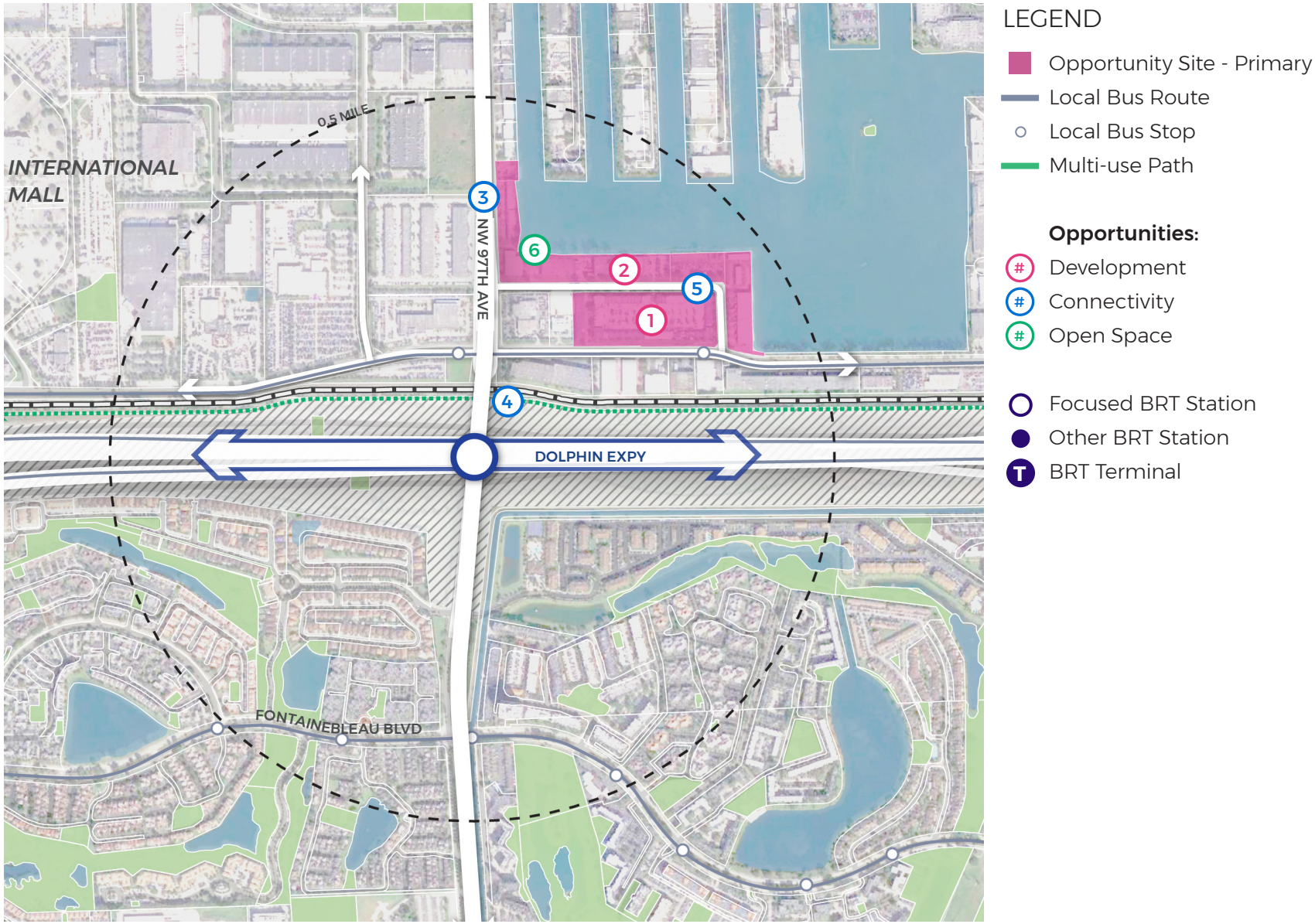


Pedestrian/Bicycle Connectivity

The location of the proposed station in the median of the highway, under the NW 97th Avenue overpass, presents a challenge to create pedestrian and bicycle connections with the surounding neighborhoods, as vertical connections will be necessary to link the transit station to the bridge 60 feet above grade. NW 97th Avenue has an existing 10-feet wide, fenced sidewalk on the west side along a 2,400-feet bridge span, chich presents an additional challenge for access to the neighborhoods on the east side of 97th Avenue. The pedestrian crossing at the bridge landing is critical to the overall walkability and pedestrian safety in the station area. The Kitty Roedel Trail, located between the CSX railroad and the highway, provides limited connectivity because it lacks a connection to nearby neighborhoods.

The industrial district in the station area is heavily auto-oriented, with significant areas used for parking, loading, and access to surface parking lots. This area provides minimum sidewalk infrastructure along NW 97th Avenue and NW 12th Street. In contrast, the residential district in the south offers sidewalks on all the streets with main entrances to the residential complexes.

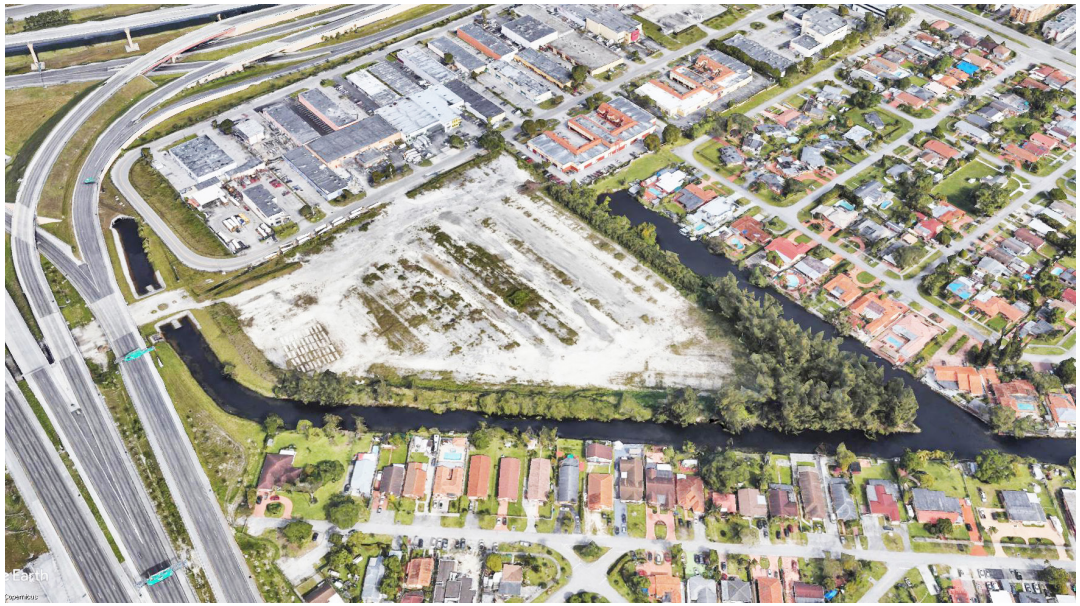
Figure 5-8: NW 97TH AVENUE STATION AREA OPPORTUNITIES AND CONSTRAINTS



5.3.3 OPPORTUNITIES

The NW 97th Avenue station is located near an area designated by the Doral Comprehensive Plan as a Community Mixed-Use Opportunity Area, in the northeast quadrant of the station area. The existing neighborhood serves as an employment center with an abundance of industrial land that accommodates automotive services, supply stores, warehouses, and a car dealership. The identified opportunities in this station area include:

1. The land parcel bounded by NW 13th Street and NW 12th Street is currently occupied by ample surface parking encircled by two-story light manufacturing buildings from the early 1970s. This site will become one of the most valuable properties due to proximity to the new transit station, with the potential to support innovative industrial redevelopment that can be a catalyst for the adjacent manufacturing areas.
2. The area adjacent to the retention pond is also dominated by light manufacturing buildings and warehouses built nearly four decades ago. The site can be redeveloped as a part of a new, more dense live-work neighborhood that retains and attracts more manufacturing jobs and provides recreational spaces for residents of the new waterfront residences.
3. The waterfront area is directly connected to the landing of NW 97th Avenue bridge which is the only existing connection in the station area from the neighborhood south of the expressway. Thus, this is an important entrance to the community on the east of the bridge, especially when the new station brings more transit users.
4. The Kitty Roedel Bicycle Path traverses east-west through the NW 97th Avenue station area. However, there isn't any existing access from the path across the railroad to the adjacent neighborhoods. A vertical connection between Kitty Roedel and the highway bridge will be able to link the middle of the recreational path to the roadway network.
5. NW 13th Street is a bidirectional street that feeds into NW 12th Street and NW 97th Avenue near the bridge landing and passes between the identified development sites. The street will be a suitable location for key retail frontages to promote a signature brand for the neighborhood and provide enhanced walkability.
6. The adjacency to the water can be leveraged to create a waterfront park wrapping along the edge of the opportunity site. It can potentially turn the retention pond into a valuable public asset with neighborhood amenities and green infrastructure.




FLORIDA HEALTH SOUTION


COSTCO
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5.4 NW 7TH STREET STATION

The NW 7th Street Station is proposed along Ralph Renick Way (also known as a portion of NW 7th Street) to the east of the Palmetto Expressway, surrounded by light industrial and low-density residential neighborhoods. An underpass extension is now under construction and will connect NW 7th Street to the west side of SR-826. The new connection will provide direct access from the station to shopping centers such as the Mall of Americas, Costco, and Home Depot as well as the multifamily neighborhoods north of NW 7th Street. The proposed transit station is located on vacant land which is owned and operated by FDOT, and currently being used as a staging area for the construction of the I-395 Signature Bridge. However, considering the close proximity to the new station and the neighboring residential districts, there's an opportunity to leverage the underutilized parcel and create a valuable transit-oriented mixed-use neighborhood.

5.4.1 STATION AREA CONTEXT

Land Use

The NW 7th Street station area is divided into three portions by Dolphin Expressway and Palmetto Expressway. The northern part contains mainly industrial uses, and the western part includes multifamily neighborhoods and commercial land with limited development opportunities. The southeastern section, where the new transit station is located, contains a wedge-shaped vacant lot on the south side of NW 7th Street which is approximately 12-acres, making it an attractive location for TOD.

The wedge-shaped vacant land is bordered by on the west, south, and east edge by a canal roughly 60-feet wide. Single-family buildings occupy the neighborhoods on the other side of the canal with private backyards. The northern edge of the vacant site is about 750-feet long, directly fronting the NW 7th Street. The remaining area around the station consists of light industrial uses and small offices largely built during the 1970s and 1980s, and a strip of apartment buildings on the east side of Milam Dairy Road.

Figure 5-9: NW 7TH STREET STATION AREA ZONING MAP

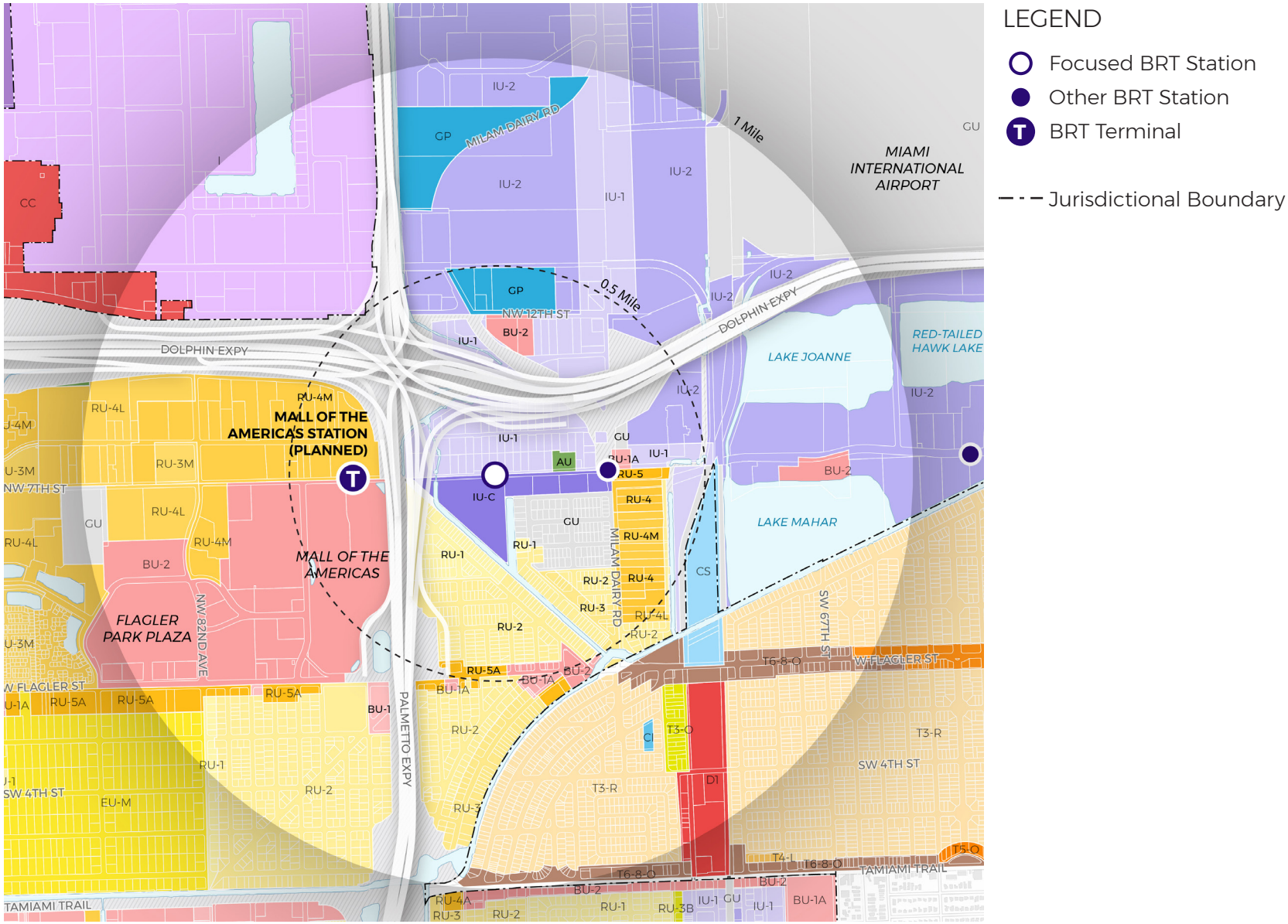


Table 5-3: NW 7TH STREET STATION AREA ZONING

Jurisdiction	Zoning	Description	Percentage Share within 1/2 Mile
Miami-Dade County	AU	Agricultural/Residential	0.4%
	BU-1A	Business District, Limited	0.4%
	BU-2	Business District, Special	10.0%
	GP	Government Property	3.2%
	GU	Interim District-Uses	5.7%
	IU-1	Industrial Districts, Light Manufacturing	17.6%
	IU-2	Industrial Districts, Heavy Manufacturing	5.2%
	IU-C	Industrial Districts, Conditional	4.9%
	RU-1	Single Family Residential	3.9%
	RU-2	Two-Family Residential	11.3%
	RU-3	Four-Unit Apartment	1.3%
	RU-4	High Density Apartment	2.7%
	RU-4M	Modified Apartment House	7.4%
	RU-5	Semi-professional Offices and Apartment	0.5%
	RU-5A	Semi-Professional Office	0.7%
	NONE	Right of Way	24.6%
City of Miami	CS	Civic Space Zone	0.3%

Zoning

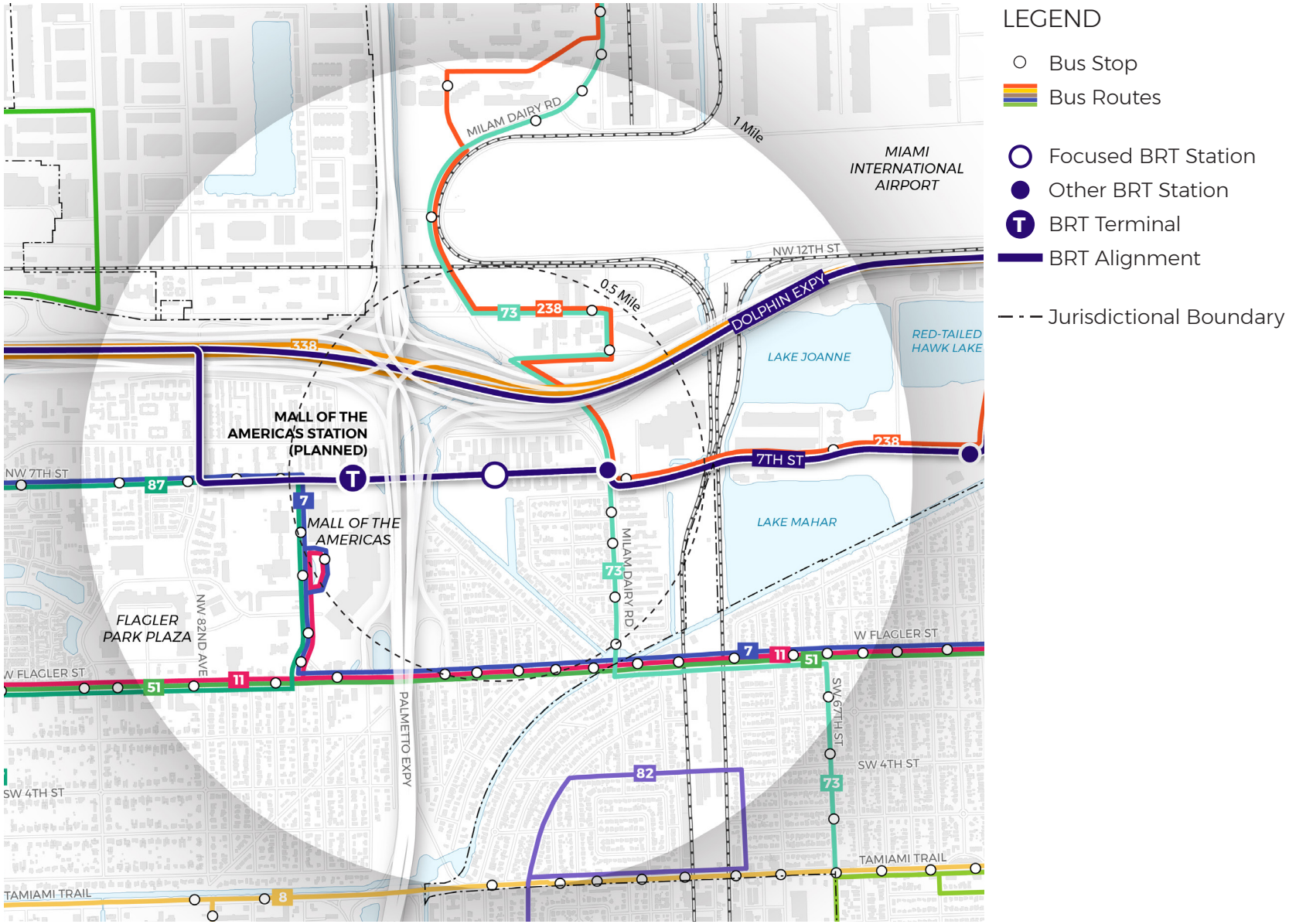
As shown in Figure 5-9 and Table 5-3, the predominant types of zoning in the NW 7th Street station area are residential and industrial. Similar to the rest of the East-West Corridor, residential zones in this station area are located on the south side of Dolphin Expressway. Apartment districts with relatively high densities, such as RU-4 and RU-4M, are planned along Milam Dairy Road and west of Palmetto Expressway. The other residential communities are clustered in between and toward the south of the station area, including single-family, two-family, four-unit apartment, and interim district which allows single-family residences and associated customary uses.

The Industrial zoned area is located north of the residential area described above. Next to the new transit station, the vacant site is zoned as a conditional industrial district where the current permitted uses include wholesale distribution and storage facilities, warehousing, offices, etc. In order to utilize the vacant land parcel for potential TOD to support the upcoming new transit station, zoning changes will be required

FEMA Flood Zone and Stormwater

Most of the western area and a portion of the single-family neighborhood fall within the 100-year floodplain identified by FEMA in 2015. The rest, including most industrial districts and the wedge-shaped vacant land parcel, are in the 500-year flood zone. Permeable surfaces and resilient, open spaces will be crucial for this station area to reduce ponding and protect the neighborhood against water-related events.

Figure 5-10: NW 7TH STREET STATION AREA TRANSIT ELEMENT MAP



5.4.2 CONNECTIVITY

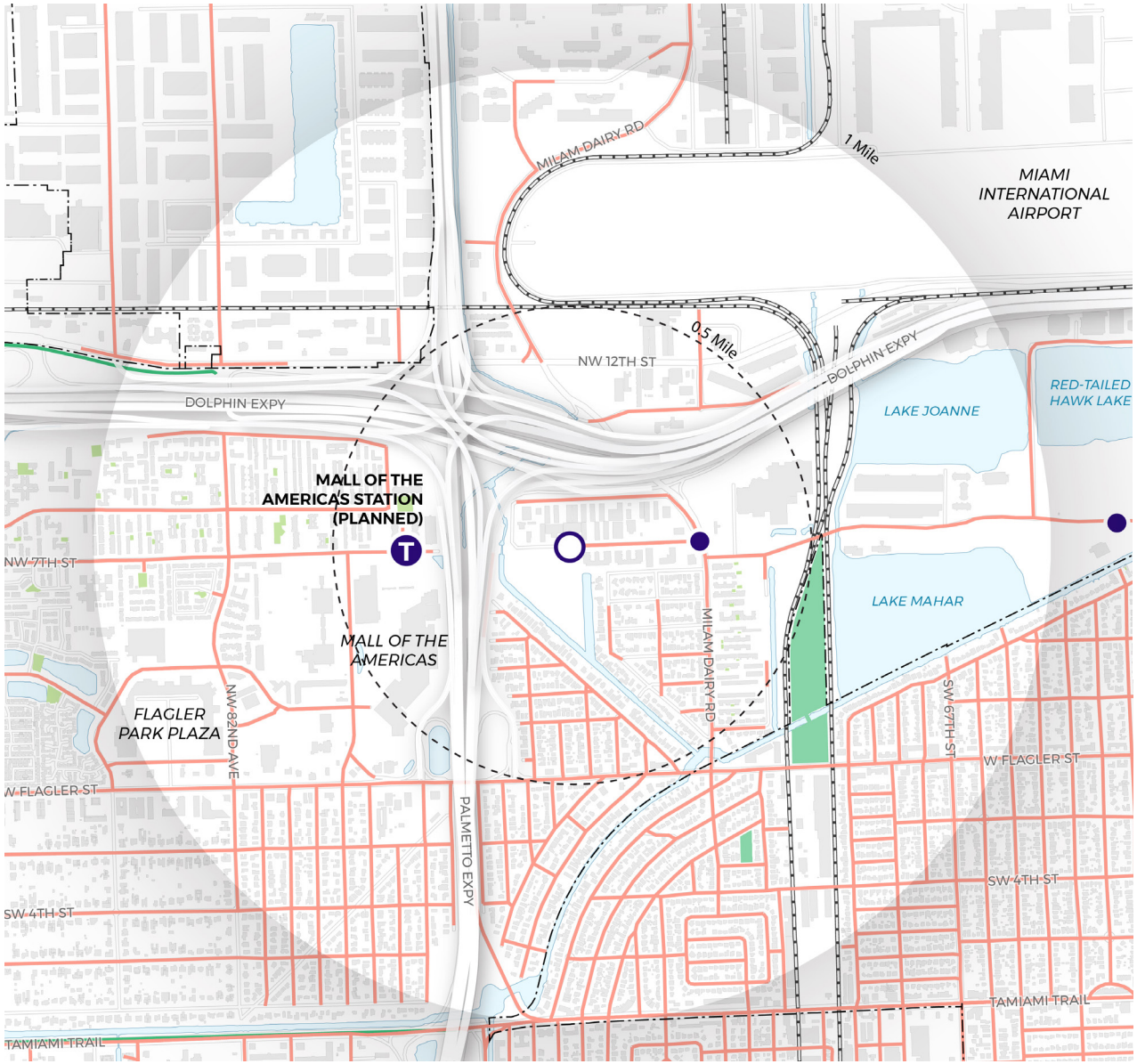
The NW 7th Street Station is situated at the southeast corner of the SR-836 / SR-826 interchange. Milam Dairy Road is a primary north-south corridor and the only connection that crosses under the Dolphin Expressway to link the station area with the area to the north. An underpass beneath the Palmetto Expressway is currently under construction that will connect the station area with the area to the west. Once completed, NW 7th Street will provide direct access to the neighboring residential and commercial districts. A new transit route will operate along the street and connect the site to the entire East-West Corridor. Most of the other roads in the station area are two-lane local roads that serve the residential neighborhoods.

Transit Network

As shown in Figure 5-10, NW 7th Street station area contains the following transit routes:

- DTPW Metrobus Route 7 – makes a stop at Mall of the Americas on NW 79th Avenue within the station area, and along W Flagler Street at NW 76th Avenue, NW 74th Avenue, and NW 73rd Court: this route operates between Dolphin Mall Station and Downtown Miami
- DTPW Metrobus Route 11 – several lines of Route 11 stop in the station area along W Flagler Street at NW 76th Avenue, NW 74th Avenue, NW 73rd Court. One of Route 11 line operates between Mall of Americas and Downtown Miami, other lines operates between Florida International University and Downtown Miami.
- DTPW Metrobus Route 73 – runs north-south and stops at NW 12th Street and NW 72nd Avenue, NW 72nd Avenue and NW 7th Street, NW 72nd Avenue and NW 2nd Terrace in the station area. This route operates between NW 186th Street in the north and Dadeland South Metrorail Station in the south
- DTPW Metrobus Route 238 – stops at NW 12th Street & NW 72nd Avenue north of the Dolphin Expressway and stops at NW 7th Street & NW 72nd Avenue south to the expressway within the station area. This route operates between Dolphin Mall and Miami International Airport.
- DTPW Metrobus Route 51 – passes through the station area along W Flagler Street, the closest stop to the station area is at Tatami Canal Road.

Figure 5-11: NW 7TH STREET STATION AREA BICYCLE/PEDESTRIAN CONNECTIVITY MAP



LEGEND

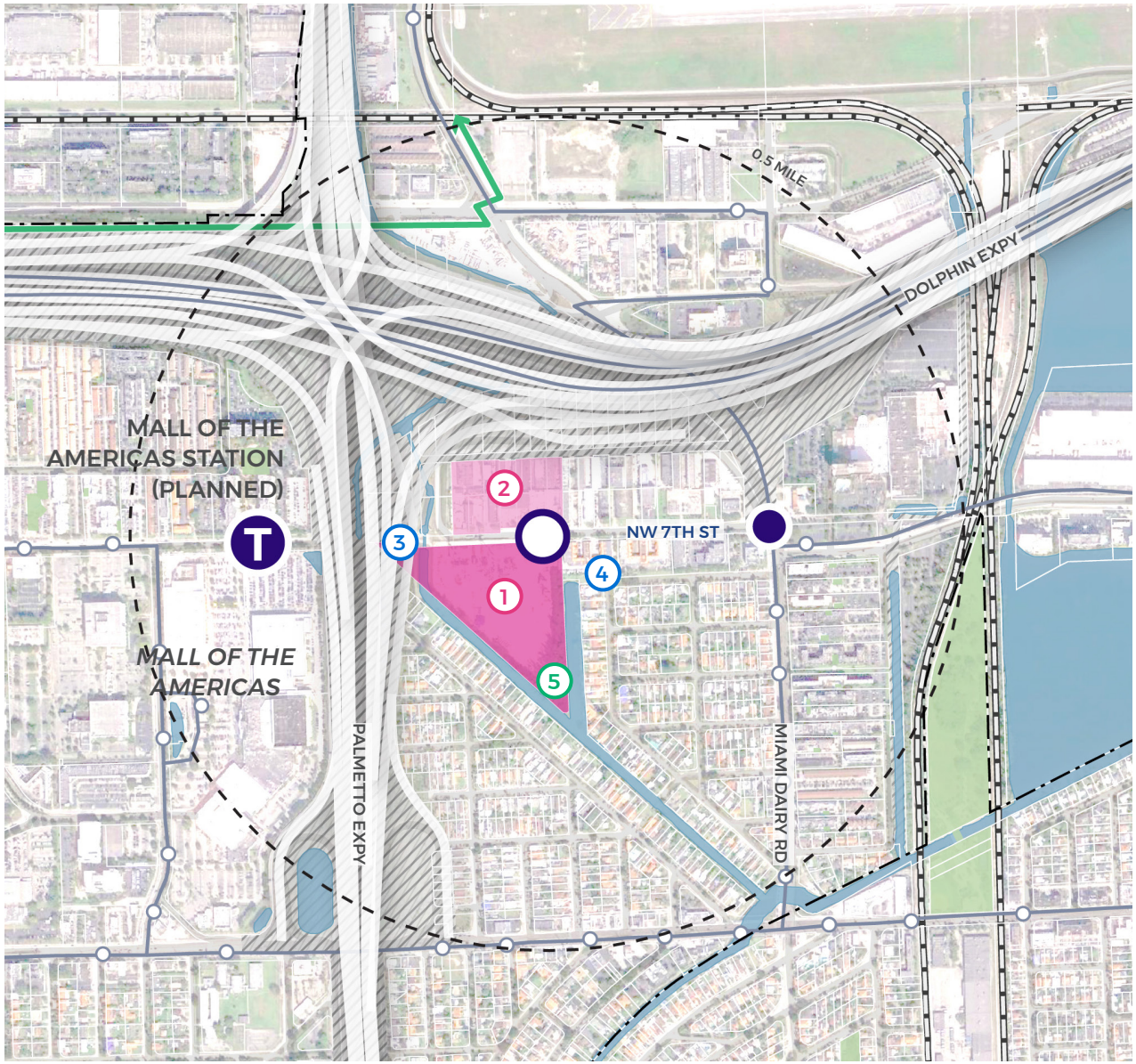
- Park/Open Space
- Private Green/Open Space
- Existing Pedestrian/Bicycle Path
- Existing Sidewalk (Typical Width 5-7ft)
- Focused BRT Station
- Other BRT Station
- BRT Terminal
- Jurisdictional Boundary

Pedestrian/Bicycle Connectivity

The existing pedestrian connection within the station area relies on the sidewalks that are typically 5-feet wide, provided along the major street corridors and most of the local roads.

Along NW 7th Street, where the new transit station is proposed, existing sidewalks are provided on one side of the street and are noncontinuous across street blocks. With the NW 7th Street extension under the Palmetto Expressway bridge, new pedestrian facilities will be incorporated along the crossing to provide safe and convenient pedestrian connections between the neighborhoods on either side of the highway. The new transit station further necessitates optimizing the walking environment and multimodal connectivity to the surrounding area.

Figure 5-12: NW 7TH STREET STATION AREA OPPORTUNITIES AND CONSTRAINTS



LEGEND

- Opportunity Site - Primary
- Opportunity Site - Secondary
- Local Bus Route
- Local Bus Stop
- Multi-use Path

Opportunities:

- # Development
- # Connectivity
- # Open Space

- Focused BRT Station
- Other BRT Station
- T BRT Terminal

5.4.3 OPPORTUNITIES

The new transit station is located along NW 7th Street on the east side of Palmetto Expressway. The land use designations in the station area share boundaries clearly defined by the highways, arterial roads, and canals with a mix of light industrial, residential, and commercial uses. The Mall of Americas is situated to the west of the expressway. The identified opportunities for this station area include:

1. A 13-acre vacant site is immediately adjacent to the new transit station and fronting the NW 7th Street, making it the most desirable land for a mixed-use development with higher density to support transit ridership. This parcel is owned by FDOT and intragovernmental coordination is necessary to ensure it is developed to its highest and best use.
2. The existing light industrial area along the north side of NW 7th Street was primarily built out around the 1980s and is currently occupied by local independent businesses. The new transit station will likely bring more investment opportunities to the neighborhood. The light industrial land can be redeveloped with a phasing strategy starting from the parcels adjoining the station and bolster development in the long term.
3. The principal connectivity in the station area is NW 7th Street, which will soon connect to the Mall of the Americas and beyond. The new East-West Corridor BRT line will continue along the newly connected street to the station at the Mall of Americas.
4. The identified primary development site currently can only be accessed from NW 7th Street with limited pedestrian facilities. The local roads serving the adjacent residential neighborhoods can potentially support non-motorized means of transportation that may extend to reach the site and increase walkability within the station area.
5. The station area includes neighborhoods with a considerable deficiency in the number and quality of public open spaces. The existing canals surrounding the development site are only accessible from the backyards of private properties. However, these canals present an opportunity for a linear green space connection on the edge of the parcel, with a possibility to serve both the existing and future residents and visitors as a neighborhood riverfront park which transforms the canals into a public asset.


NW 42 AV

5.5 NW 42ND AVENUE STATION

The NW 42nd Avenue Station is proposed adjacent to the eastbound exit lane of the Dolphin Expressway at NW 42nd Ave. The station is located next to a cluster of airport hotels surrounded by residential neighborhoods of different densities and types. The station area is shared by two significant public properties north of the expressway, the 58-acre Miami Freedom Park currently under study to the east of NW 42nd Avenue and the Miami International Airport parking lots to the west.

The entire station area remains in the City of Miami, where the Miami 21 zoning code was adopted in 2009. This award-winning form-based zoning code defines each regulative zone as an inclusive built environment that varies from rural to urban. In addition to municipal zoning policies, the close proximity to the airport runways requires additional airport zoning restrictions with limits on uses, building height, and noise compatibility requirements on design and construction.

The station area recently started to see development projects coming in. A new mixed-use development located at 850 LeJeune includes 200,000 square feet of office space and 230 residential units was completed in 2020 on a previously vacant site near the northwest corner of NW 42nd Avenue and NW 7th Street. To the southeast, the existing Central Shopping Plaza will be replaced by CentroCity, a 38-acre mixed-use development with rental units, offices, and retail spaces.

5.5.1 STATION AREA CONTEXT

Land Use

The northern half of the station area contains the Miami International Airport employee parking lots and the planned Miami Freedom Park, while the southern half contains a mix of uses including hotels, residential, offices, and retail, with non-residential uses concentrated on NW 42nd Avenue and NW 7th Street.

Behind the commercial street fronts, single family residential dominates the area to the south and east, with higher density multi-family residential located in the immediate southwest of the station site, most of which are two-story apartment buildings from the 1960s to 1970s.

Figure 5-13: NW 42ND AVENUE STATION AREA ZONING MAP

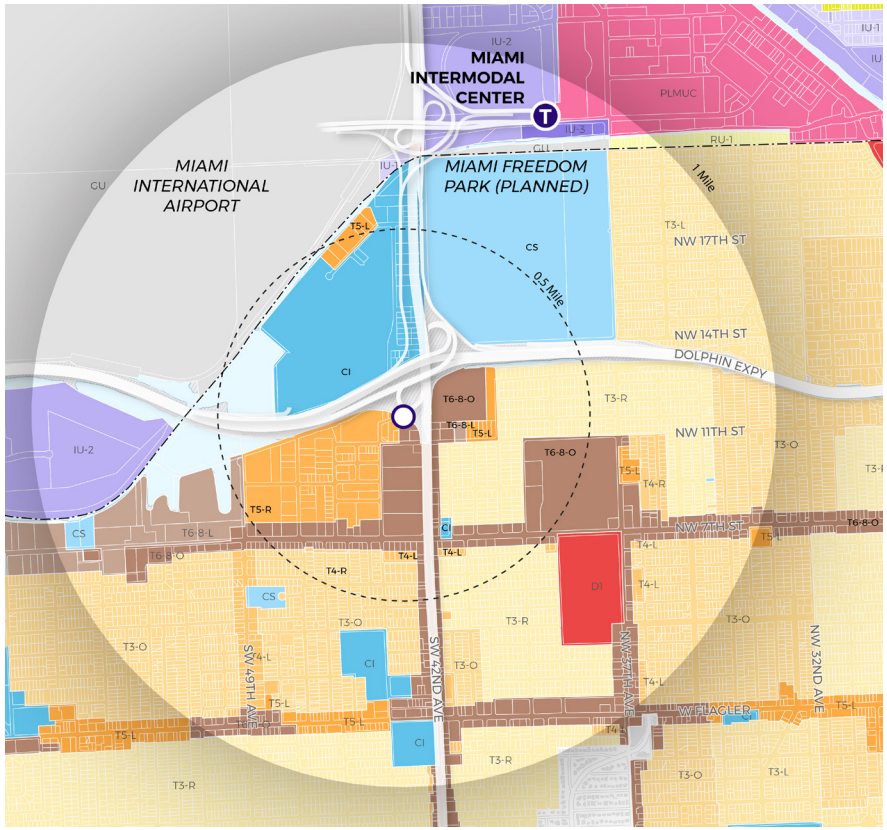
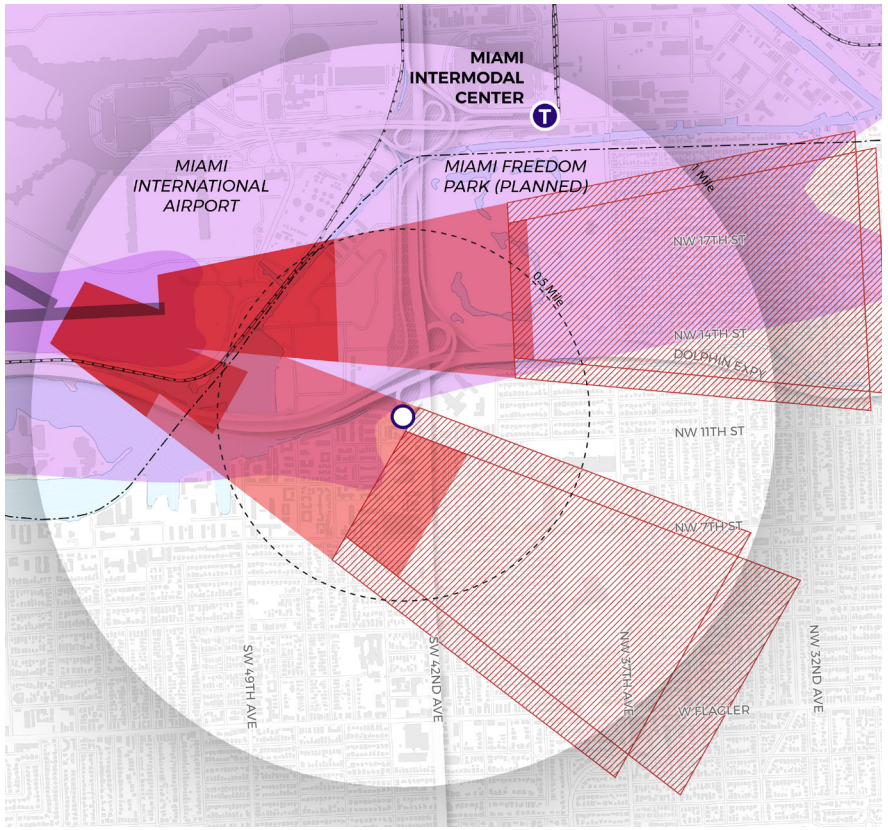


Figure 5-14: NW 42ND AVENUE STATION AREA LAND USE COMPATIBILITY RESTRICTION MAP



LEGEND

- Runway Outline
- Runway Protection Zone (RPZ)
- Outer Safety Zone (OSZ)
- Critical Approach Zone (CAZ)
- 75 Decibel Noise
- 65 Decibel Noise
- Focused BRT Station
- Other BRT Station
- BRT Terminal
- Jurisdictional Boundary

Table 5-4: NW 42ND AVENUE STATION AREA ZONING

Jurisdiction	Zoning	Description	Percentage Share within 1/2 Mile
City of Miami	CI	Civic Institution	19.4%
	CS	Civic Space	10.2%
	T3-O	Sub-Urban Zone - Open	4.1%
	T3-R	Sub-Urban - Restricted	15.0%
	T4-L	General Urban - Limited	0.6%
	T4-R	General Urban - Restricted	0.2%
	T5-L	Urban Center - Limited	1.9%
	T5-R	Urban Center - Restricted	12.1%
	T6-8-L	Urban Core - Max. 8 Stories - Limited	0.7%
	T6-8-O	Urban Core - Max. 8 Stories - Open	19.4%
Miami Dade County	GU	Interim District-Uses	1.6%
	NONE	Right of Way	15%

FEMA Flood Zone and Stormwater

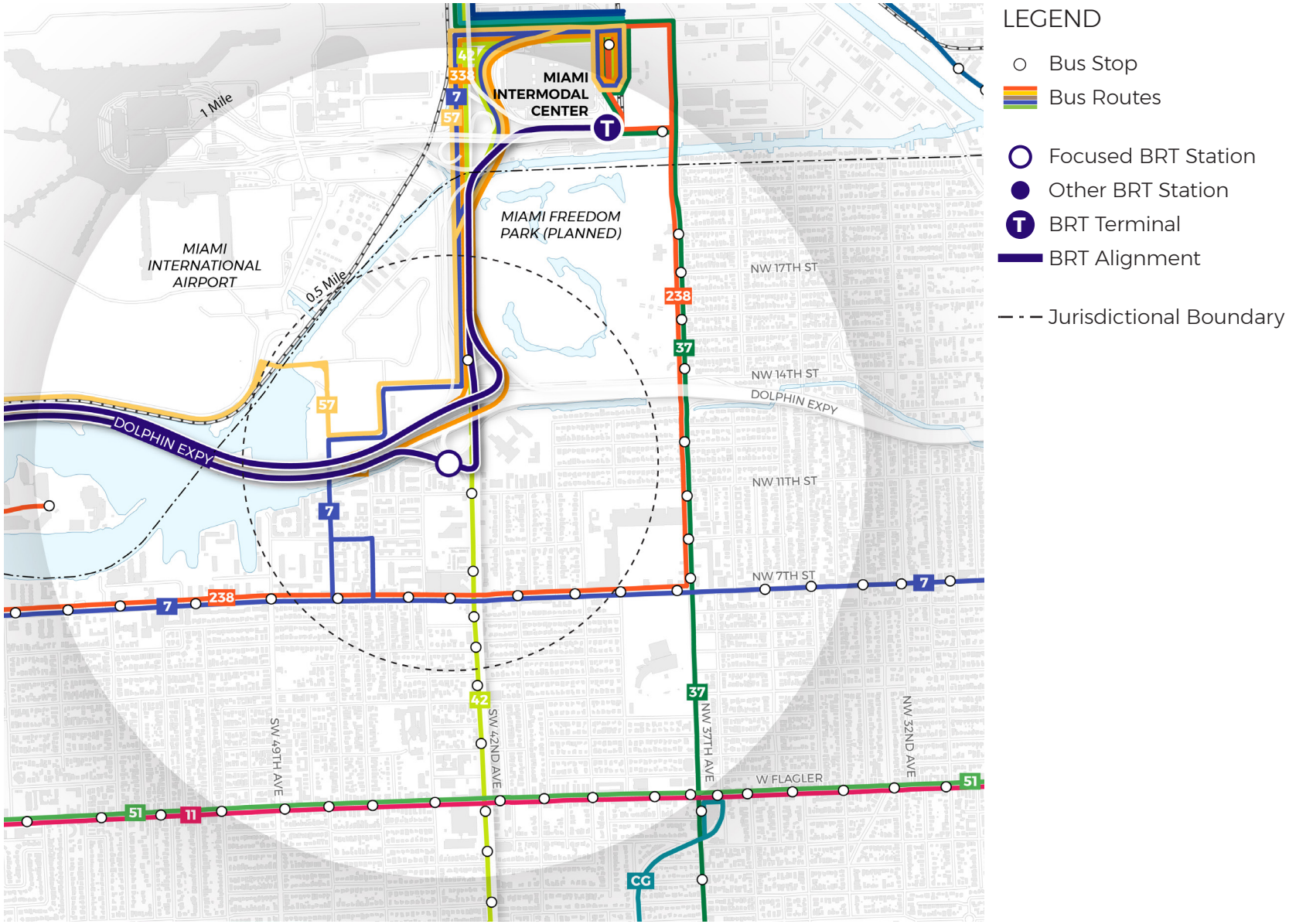
Like the rest of the East-West Corridor, flooding risk remains a challenge for the NW 42nd Avenue station area. Most of the station area is in the 1 percent annual flood zone outlined by FEMA in 2015. In this regard, green infrastructure and permeable open spaces will be vital, especially for the southern half of the station area due to the absence of major open spaces.

Zoning

Miami 21 zoning code is a form-based zoning code where transect zones are applied to regulate buildings, open spaces, land uses, and streets rather than more traditional function-based zoning. The 42nd Avenue station area encompasses transect zones ranging from suburban to urban center. Consistent with the current land use, the area facing NW 42nd Avenue and NW 7th Street is zoned as T6-8-O, where the greatest variety of uses are allowed with a height limit of eight stories. The sub-urban zone consists of single-family and two-family residences with deeper setbacks, reflecting the existing single-family houses to the east of the NW 42nd Avenue corridor. The current residential neighborhoods adjacent to the new station lie within the restricted urban center transect zone. This zone allows higher densities with a mix of residential and commercial uses.

Additionally, due to the close proximity to the airport, a significant part of the station area falls within the Outer Safety Zone (OSZ) and Critical Approach Zone (CAZ), as shown in Figure 5-14. For the quality of life considerations in the nearby neighborhoods and the safe use of the airport, any new residential, educational, hospital, religious facilities, and other buildings for public assemblage are prohibited in OSZ. The CAZ prohibits healthcare, educational facilities, and any uses that might interfere and/or jeopardize airport operations. Any recommendation for TOD in these zones should align with these land use compatibility requirements.

Figure 5-15: NW 42ND AVENUE STATION AREA TRANSIT ELEMENT MAP



5.5.2 CONNECTIVITY

Two primary arterial roads serve the station area. The east-west NW 7th Street links the station area to the employment centers on the east and the residential neighborhoods on the west. The north-south NW 42nd Avenue connects to Miami International Airport, the Miami Intermodal Center, and the planned Miami Freedom Park. The new transit station is located along the Dolphin Expressway eastbound exit ramp at the end of NW 12th Street. This section of NW 12th Street is a 280-feet long, diagonal extension of the bidirectional two-lane NW 43rd Avenue that runs north-south and can provide a direct connection to the adjacent residential neighborhoods.

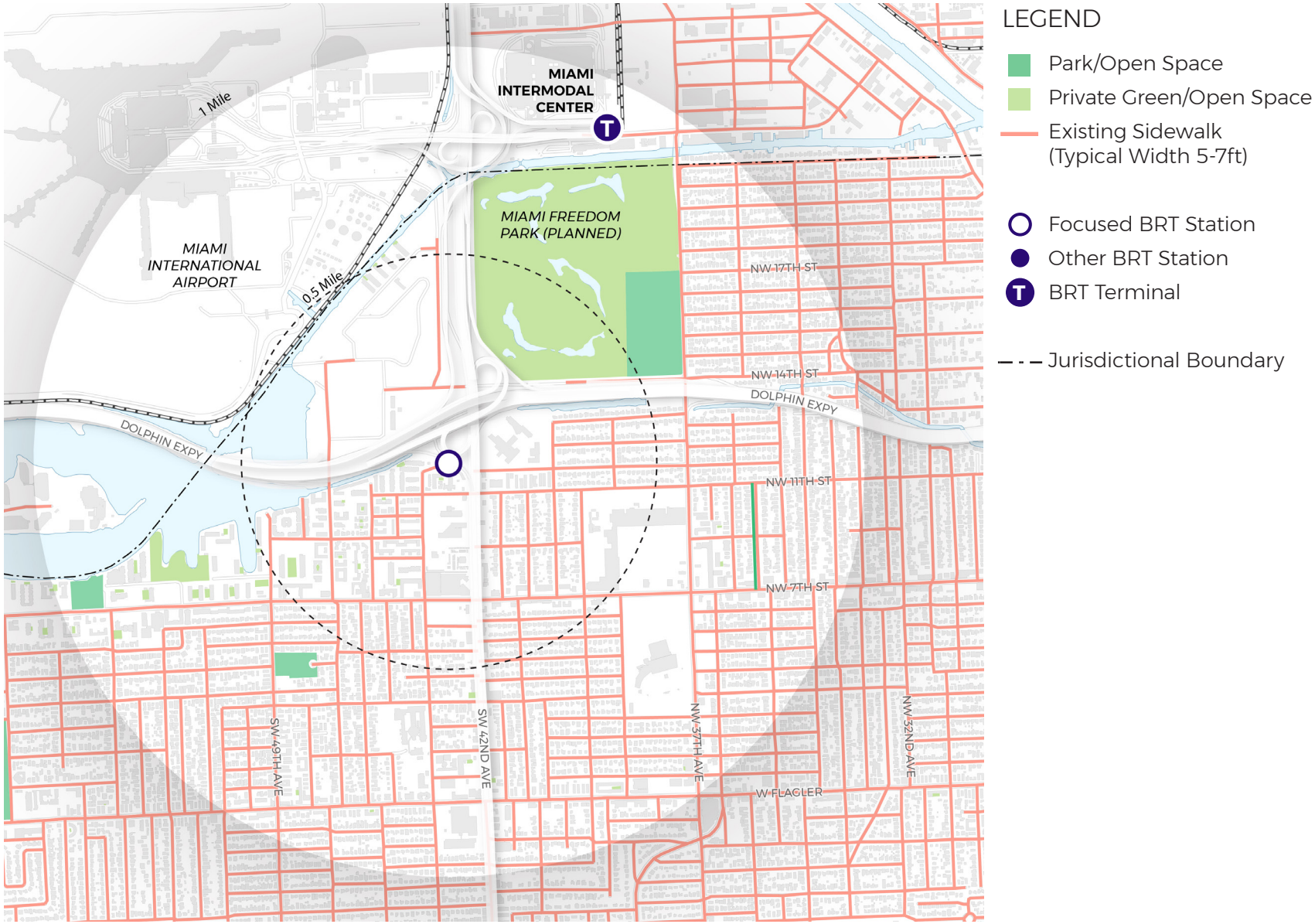
Several DTPW Metrobus routes make stops at the station area along NW 42nd Avenue and NW 7th Street, providing regional connections and transit options for the residents and visitors. The existing pedestrian connections primarily rely on the sidewalks with little walkable open spaces.

Transit Network

As shown in Figure 5-15, NW 42nd Avenue station area contains the following transit routes:

- DTPW Metrobus Route 42 – stops along NW 42 Avenue at NW 11th Street, NW 7th Street, and NW 4th Street within the station area: this route operates from Douglas Road Metrorail Station to Miami International Airport Station and to Opa-Locka Tri-Rail Station.
- DTPW Metrobus Route 7 – stops along NW 7th Street at NW 43rd Court, NW 43rd Avenue, NW 42nd Avenue, and NW 39th Avenue within the station area: this route operates between Miami International Airport Station and Downtown Miami, and between Dolphin Mall and Downtown Miami.
- DTPW Metrobus Route 238 – stops along NW 7th Street at NW 45th Avenue, NW 43th Court, NW 42th Avenue, NW 40th Avenue, NW 39th Avenue, within the station area: this route operates between Miami International Airport Station and Dolphin Mall.

Figure 5-16: NW 42ND AVENUE STATION AREA BICYCLE/PEDESTRIAN CONNECTIVITY MAP

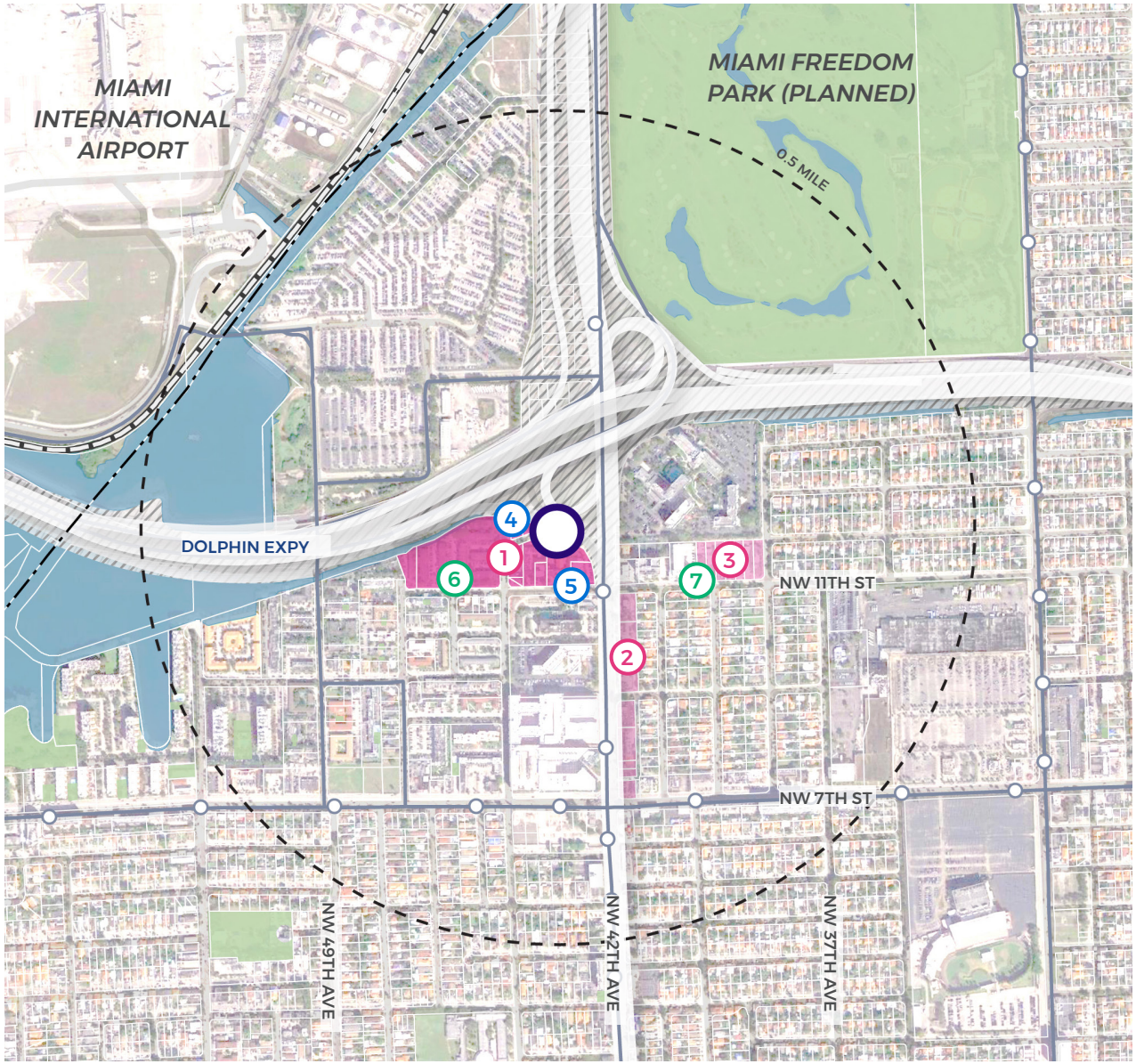


Pedestrian/Bicycle Connectivity

The NW 42nd Avenue station is located along the exit ramp of Dolphin Expressway near the northern end of NW 12th Street. The highway exit lane wraps around the back wall of Miami Princess Hotel, without any pedestrian facilities. The pedestrian access to the new transit station will primarily rely on NW 12th Street, which merges into NW 43rd Avenue as it turns south. The existing pedestrian connections are provided solely by the sidewalks that are typically 6-feet wide along the street grid in the station area.

Although the abundant open spaces are within a half-mile of the new transit station, the highway interchange and bridges bring critical challenges for north-south connectivity, especially for pedestrians and bicyclists, making it difficult for non-motorized users to access the parks from the transit station. The residential and commercial neighborhoods in the south are in shortage of principal open spaces that are built to human scale and easy to access, which is crucial for establishing pedestrian networks.

Figure 5-17: NW 42ND STREET STATION AREA OPPORTUNITIES AND CONSTRAINTS



LEGEND

- Opportunity Site - Primary
- Opportunity Site - Secondary
- Local Bus Route
- Local Bus Stop
- Multi-use Path

Opportunities:

- # Development
- # Connectivity
- # Open Space

- Focused BRT Station
- Other BRT Station
- T BRT Terminal

5.5.3 OPPORTUNITIES

The NW 42nd Avenue station is situated at a hotel hub with four airport hotels within the station area. The CDMP designated the land parcels along NW 42nd Avenue and NW 7th Street for business and office uses, forming east-west and north-south commercial corridors traversing the station area. Although the aviation land use requirements restrict a significant part of the neighborhood, the area holds unique opportunities including but not limited to:

1. The new transit station is planned near an old residential complex built in 1969 and several multifamily buildings and a hotel from more than thirty years ago. These sites are identified as primary sites for potential redevelopment and will benefit from the immediate adjacency to the future station.
2. The parcels fronting NW 42nd Avenue is dominated by surface parking lots associated with small footprint, single-story retail, and are under-developed considering the significance of the avenue as a significant commercial corridor. These sites can be redeveloped to accommodate higher density commercial uses and improve the street front along the principal arterial road.
3. Another redevelopment opportunity lies in the northwest of the NW 11th Street and NW 39th Court intersection. The area is currently occupied by two-story multifamily residences built around the early 1960s. As a few of the relatively limited sites in the station area where new residential structures are allowed, this area has the capacity for a denser residential, mixed-use development that can provide more affordable housing.
4. The new transit station is located near the northern dead end of NW 12th Street. It is anticipated that the station will require park and ride facilities to serve future transit users. Thus the current end of the Street can be reconfigured to provide easier access to vehicles and pedestrians coming to and from the station while avoiding congestions.
5. NW 11th Street serves as the east-west connection closest to the new transit station that provides a link across the seven-lane NW 42nd Avenue. The intersection is of great significance for enhancing the roadway network in the station area.
6. Similar to the rest of the station areas, this neighborhood lacks public and green spaces. With the station area's street blocks at a relatively walkable scale, public spaces can be designed to not only serve as neighborhood amenities, but also help establish view corridors between the streets and the new transit station.