EAST-WEST CORRIDOR

SMART Plan East - West Corridor

Land Use Scenario & Visioning Planning

TPO
Miami-Dade Transportation Planning Organization

December 2021

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Acronyms

BERT	Bus Express Rapid Transit
BRT	Bus Rapid Transit
CDMP	Comprehensive Development Master Plan
CITT	Citizens' Independent Transportation Trust
CLUC	County Land Use Code
COLA	Challenges, Opportunities, Liabilities, and Assets
CTAC	Citizens' Transporation Advisorty Committee
DOR	Department of Revenue
DTPW	Department of Transportation and Public Works
FDOT	Florida Department of Transportation
FEC	Florida East Coast
FIU	Florida Interational University
FLU	Future Land Use
FSUTMS	Florida Standard Urban Transportation Model Structure
FTA	Federal Transit Administration
HEFT	Homestead Extension of Florida's Turnpike
LOS	Level of Service
LPA	Locally Preferred Alternative
LRTP	Long Range Transportation Plan
MDX	Miami-Dade Expressway Authority
MIA	Miami International Airport
MIC	Miami Intermodal Center
MPO	Metropolitan Planning Organization
NWI	National Wetlands Inventory
PD&E	Project Development & Environmental Study
RER	Regulatory and Economic Resources
SAC	Study Advisory Committee
SERPM7	Southeast Florida Regional Planning Model
SFRPC	South Florida Regional Planning Council
SFRTA	South Florida Regional Transportation Authority
SFWMD	South Florida Water Management District
SLUC	State Land Use Code
SMART	Strategic Miami Area Rapid Transit
STOPS	Simplified Trips-on-Project Software
TIP	Transportation Improvement Plan
TOC	Technical Oversight Committee
TOD	Transit Oriented Design
TPO	Transportation Planning Organization

Executive Summary

This report summarizes the results of the *Land Use Scenario and Visioning Planning Study* for the SMART Plan East-West Corridor. The planning study developed a land use vision that will accommodate transit supportive uses along the corridor consistent with the goals of the SMART Plan. Working in coordination with the public, a Study Advisory Committee (SAC), the Miami-Dade Transportation Planning Organization (TPO), and elected officials, a preferred land use scenario was developed including station locations and station typologies that will be conducive to Transit-Oriented Communities within the station area.

Background

In February 2016, the Miami-Dade TPO set as its "highest priority" advancing rapid transit corridors and transit-supportive projects for the county. In April 2016, the TPO officially adopted the proposed Strategic Miami Area Rapid Transit (SMART) Plan to advance six rapid transit corridors along with a network of Bus Express Rapid Transit (BERT) service.

Three separate activities occurred simultaneously that provided the opportunity to involve the community in the planning and visioning processes to select the best technology and land uses along each corridor:

- **Land Use Scenario and Visioning Planning** – Lead by the Miami-Dade TPO.
- **Economic Mobility & Accessibility Studies** – Lead by the Miami-Dade TPO.
- **Project Development & Environmental Studies (PD&Es) -** Led by the Miami-Dade Department of Transportation and Public Works (DTPW) or Florida Department of Transportation/District Six (FDOT), depending on the corridor. For the East West Corridor the PD&E study is being led by DTPW.

Report Purpose

This report addresses the development of a land use vision of the SMART Plan of the East-West Corridor. Based on the premise that transit supportive land use plays an important role in the success of major rapid transit projects the study purpose includes the following:

- To assess the direct relationship between transit and land use for all six SMART Plan rapid transit corridors;
- To promote transit use and increase mobility choices for residents, businesses and visitors along the corridor; and,
- To provide a technical basis for development of transit supportive land uses for the East-West Corridor Locally Preferred Alternative.

This study developed and analyzed four land use scenarios along the East-West corridor that would be supportive of the future transit plan along the corridor.

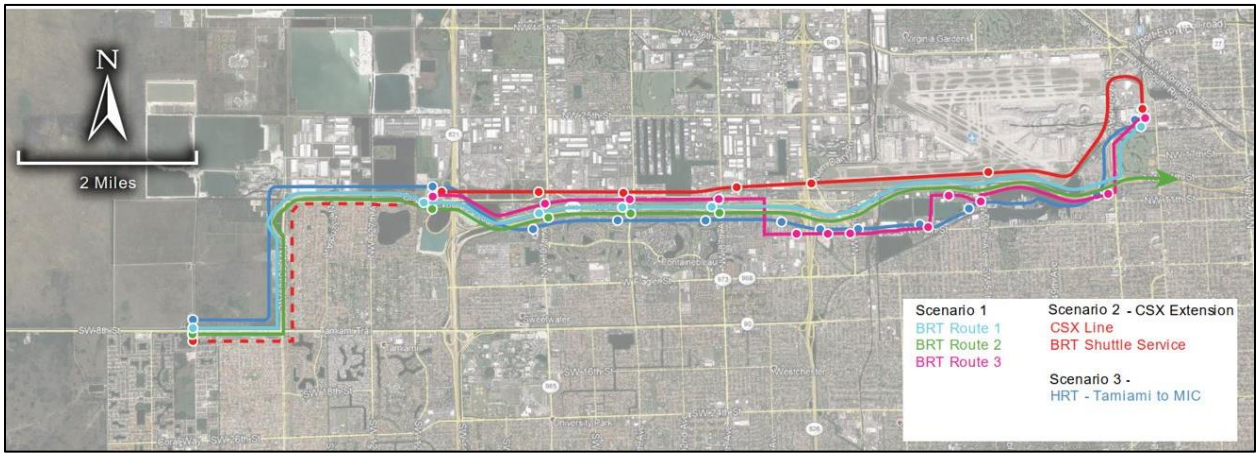
Concurrent Study

DTPW coordinated the PD&E study for the East-West Corridor titled *the East-West Corridor Rapid Transit Project*. The purpose of the project included:

- Identifying the purpose and need for transit improvement;
- Selecting a locally preferred alternative;
- Identifying the 'universe of alternatives' and determining their feasibility;
- Defining viable alternatives and performing a detailed analysis; and,
- Providing connections to regional transit service improving connections to MIA and downtown Miami.

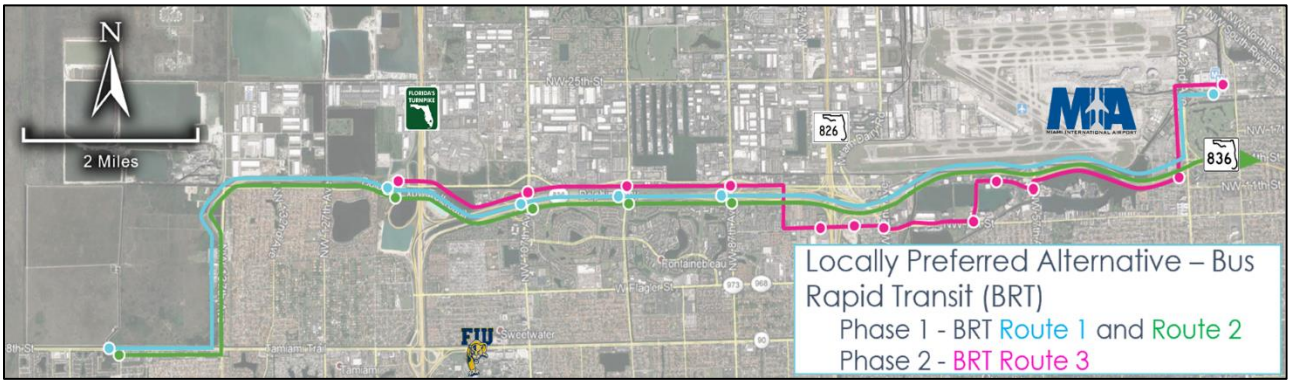
The project elements included data collection, environmental evaluations, public engagement, and engineering analysis. The PD&E study began in 2017, shortly before this study. The project reviewed three transit alternatives: Bus Rapid Transit (BRT), CSX Extension, and Heavy Rail Transit (HRT). The alternatives are shown in **Figure ES-1**.

Figure ES-1 DTPW Transit Scenarios



The study resulted in the identification of the BRT scenario as the Locally Preferred Alternative (LPA) shown in **Figure ES-2.** The LPA consists of three BRT routes implemented in two phases. This LPA was adopted in October 2020. This transit scenario was the basis for the development of the final land use scenario for this project.

Figure ES-2 DTPW Locally Preferred Alternative



Project Limits

The initial project limits when the study began included a half-mile buffer along the Florida Turnpike/SR 836 from Florida International University (FIU) to the Miami Intermodal Center (MIC) at the Miami International Airport **(Figure ES-3).** The project limits were revised from FIU to Tamiami Terminal (**Figure ES-4**) in Summer 2020 based on the DTPW PD&E study, the TPO Governing Board comments, and input from Commissioners. This means that all of the analysis and initial scenario development were based on the initial project limits to FIU whereas the refined analysis used the revised 2020 study limits to Tamiami Terminal.

Figure ES-3 Initial Project Limits

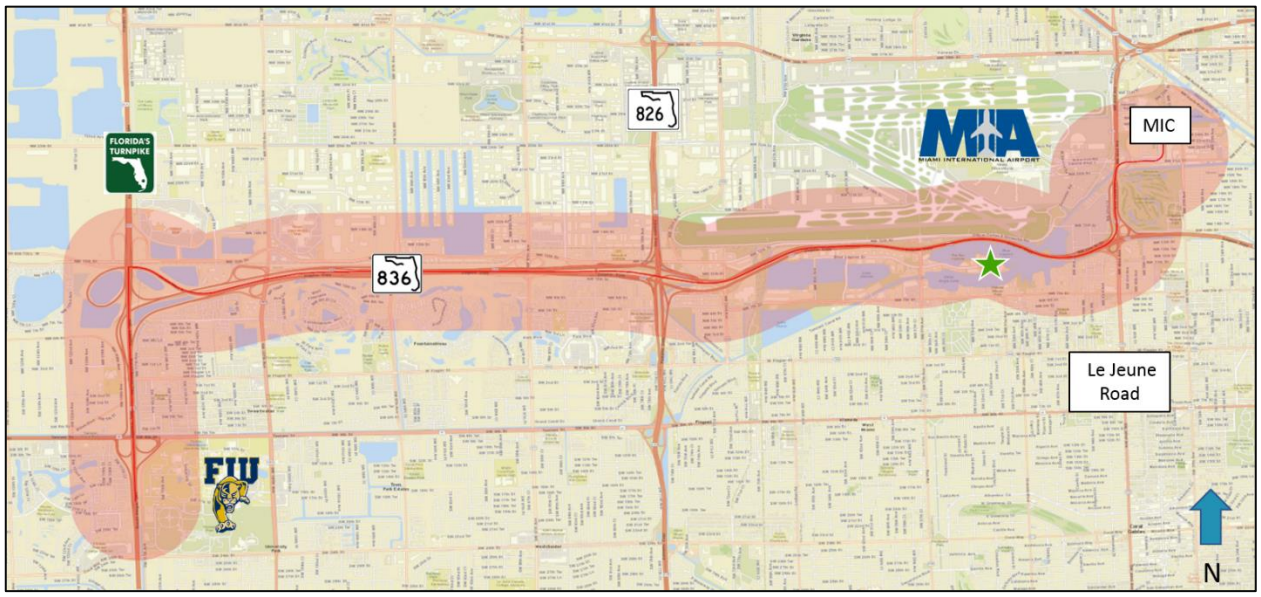
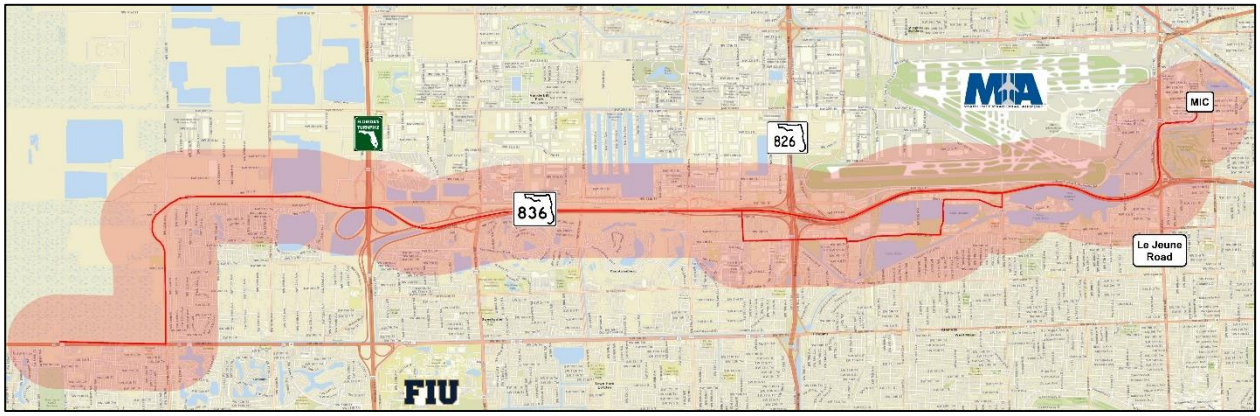


Figure ES-4 Revised Project Limits



East-West Corridor Overview

This overview is based on the initial study limits from FIU to the MIC. See **Chapter 2.0** for more details about the East-West Corridor overview. Additionally, recent census and employment data have been released since this study began. This overview is based on data that was available at the time the analysis was conducted.

Housing and Employment

There were nearly 30,000 housing units within the study area. Most of the units (85%) are either condominiums (59%) or Multifamily (26%). Less than 10% of the available housing is single family. Of the total housing units, approximately 90% are occupied, meaning 10% are considered vacant. A majority of the occupied units are renter occupied (54%), whereas approximately 46% are owner occupied. Employment data was derived using 2010 socio-economic data from the Southeast Florida Regional Planning Model (SERPM7). According to the analysis, there were approximately 112,000 jobs within the corridor.

Zoning

The study area spans five municipalities, each with their own set of the zoning districts. Generally, two-thirds of the project area is either classified as General Use, Industrial, or Commercial. The remaining is either residential or mixed-use. There is little Agricultural land use or zoning within the corridor.

Parcels and Existing Land Development

There are 4,258 parcels encompassing 6,473 acres within the project area. The square footage of existing building area is approximately 51.8 million square feet, with an estimated property value of $5.4 billion. Government parcels comprise the most area with 2,725.5 acres covering 42% of the project area. Residential uses comprise the second highest land area, with 1,465 acres covering 23% of the project area. Additionally, Residential uses comprise the most building area, with approximately 12.8 million square feet. Government uses have the second highest building area (11 million square feet), and Industrial has the third highest building area (8.8 million square feet).

Furthermore, Government, Residential, and Industrial uses have the highest property values ($1.3 billion, $1.1 billion, and $1 billion, respectively). The average property value figure is the result of the appraised land value and building value of the use type. **Table ES-1** summarizes property values.

Table ES-1 Property Values Summary

DOR Use Type	# Parcels	Parcel Area (acres)	% Parcel Area	Building Area (Sq. Ft.)	Average Property Value	% Property Value
Residential	3,392	1,465.0	22.6%	12.8 million	$1.1 billion	20.2%
Commercial	186	642.3	9.9%	6.7 million	$820 million	15.1%
Mixed Use	5	2.1	0.0%	61,000	$5.5 million	0.1%
Office	81	322.3	5.0%	7.1 million	$685 million	12.6%
Industrial	258	680.2	10.5%	8.8 million	$1 billion	18.4%
Government	196	2,725.5	42.1%	11 million	$1.3 billion	23.9%
Other	140	635.8	9.8%	5.3 million	$528 million	9.7%
Total	**4,258**	**6,473**	**100.0%**	**51.8 million**	**$5.4 billion**	**100%**

Source: Miami-Dade County Property Appraiser Parcel Database, 2016

A grid pattern of streets roads makes up the surface network. The corridor will serve historically under-represented, low-income communities, providing the opportunity to better access to jobs, as well as provide a key regional mobility linkage for the area's job centers, and higher education. Currently, the East-West Corridor is classified as an urban/suburban area. Residential uses account for 22.6% of all land, and most housing is classified as low-density.

Municipalities

This corridor intersects with portions of the City of Doral, the City of Miami, the City of Miami Springs, the City of Sweetwater, and unincorporated Miami-Dade County. The County represents 67.7% of the land area, the City of Miami represents 12.0%, the City of Doral represents 10.6%, the City of Sweetwater and the City of Miami Springs represents 9.6% and 0.1%, respectively.

Charrettes and Stakeholder Coordination

Charrettes

Two series of charrettes were conducted at key milestones to obtain public input for the land use visioning process. The first series, consisting of two charrettes focused on obtaining public input for the development of land use scenarios. Through "live polling" and breakout sessions, the participants provided input on the existing land use mix and transportation options, how the communities should grow, preferred land uses, and desired multimodal connections between origins and destinations.

The second series, consisting of two charrettes, was conducted to obtain public input for the preliminary preferred land use scenario. These charrettes also included a social media component that allowed the public to join the charrettes via Facebook. The attendees identified first-mile/last-mile connections needed for accessing transit. Overall, the charrette input indicated broad support for premium transit along the East-West Corridor and transit-oriented development (TOD).

Stakeholder Meetings

A Study Advisory Committee (SAC) was formed comprised of representatives of local and state agencies to provide input for the East-West Corridor Land Use Visioning. The committee met five times during the study. In addition to providing input for the land use scenarios and technical material, the SAC also assisted in announcing charettes and encouraging the public to participate in the charrettes.

A Technical Oversight Committee (TOC) was formed by the TPO comprised of consultant staff of all SMART Plan corridor study teams and several public agencies. The TOC meetings were used to plan charrettes, develop the approach for land use scenario development, and to ensure consistency among different corridor studies. In addition to the technical committee meetings, six meetings were conducted with municipal staff and elected officials to brief the study process and obtain input. Additional information on the stakeholder meetings is presented in **Chapter 3.0**.

Land Use Scenario Development and Evaluation

The land use scenarios were developed in two phases. The first three land use scenarios were developed in the Spring of 2018 after receiving input from the first public charette series. These first three scenarios were developed using the initial project limits of FIU.

The second phase occured after the DTPW PD&E LPA BRT alternative was selected. At this time, the project limits were shifted to no longer include FIU but to extend west to the Tamiami Terminal. Based on the LPA and the revised project limits, a fourth scenario was developed, analyzed, and refined.

Stations and Station Areas

There were a total of 14 station locations evaluated during scenario development. The stations included in each scenario varied based on alignment and scenario emphasis. The station area is defined as a half mile buffer around the station. The station typology and hierarchy assigned was based on preliminary analysis using station typologies defined in the *Miami-Dade County County Development Master Plan (CDMP).*

Phase 1 Land Use Scenarios

Three preliminary land use scenarios were developed and evaluated for the East-West Corridor. These scenarios considered different growth possibilities associated with the implementation of Bus Rapid Transit (BRT) service in the corridor. In addition to the three build scenarios, socioeconomic data projections for year 2040 from the SERPM Version 7 were considered as the Baseline Trend Scenario (i.e., growth without implementation of the SMART Plan). The scenarios considered additional population and employment growth beyond 2040 allocated to TOD station areas and used maximum growth limits to all SMART Plan corridors. Besides the SERPM model additional resources used in scenario development included existing land use and zoning regulations, citizen input gathered from charrettes, stakeholder discussions, and expert judgement as to parcel land use suitability.

- **Build Scenario 1 "Northern Emphasis"** – This scenario assigned moderate growth to areas east of SR 826 while allocating higher growth to projected stations to the west including NW 84th Avenue, 97th Avenue, NW 107th Avenue, and Dolphin Station. These station areas were assumed to experience growth beyond the Trend Growth. Overall, the Scenario 1 results in a net population increase of approximately 19,600 and a net employment increase of 21,400 beyond the Baseline Trend Scenario along the Corridor by 2040.

- **Build Scenario 2 "Southern Emphasis"** – This scenario shifts the core of SMART Plan growth more evenly along the entire corridor. Under Scenario 2 the largest population growth is envisioned to occur at the NW 87th Avenue and NW 107th Avenue stations, the largest population growth is projected for the NW 107th Avenue station and the Miami Intermodal Center at Miami International Airport. Other station areas will experience growth beyond the Trend Growth. Overall, Scenario 2 estimates a net population increase of 22,000 and a net employment increase of approximately 21,000 beyond the Baseline Trend Scenario along the Corridor by 2040.

- **Build Scenario 3 "Quadrant Emphasis"** – This scenario envisions total growth more than Scenario 1 and 2 combined. The largest population growth would occur at the NW 107th Avenue station, while the largest employment growth projected at the Miami Intermodal Center at MIA. Overall,

the Scenario 3 estimates to result in a net population increase of 47,800 and a net employment increase of 43,800 beyond the Baseline Trend Scenario along the Corridor by 2040.

Phase 2 Land Use Scenario

The second phase of scenario development was based on the revised project limits to Tamiami Terminal. Phase 2 consists of Scenario 4 which was developed as a result of the adoption of the LPA BRT service scenario in the Fall of 2020. This scenario was refined after another SAC meeting in December 2020 and the second public charrette series that was held in February 2021.

Scenario 4 is a hybrid of the three East-West Corridor Scenarios. The following factors were considered when Scenario 4 was developed:

- Transit readiness of the East-West Corridor including:
  - Transit supportive land use plans in place in the following cities: Miami, Doral, and Sweetwater.
  - The City of Miami has implemented Form Based Zoning Codes
- Positive input from the public, municipalities along the corridor, and private sector for transit investment along the East-West Corridor

Scenario Evaluation

A variety of candidate parameters were considered for evaluating land use scenarios. Based on this assessment, the quantitative criteria selected to evaluate land use scenarios are transit ridership measured using weekday transit boardings and Federal Transit Authority's (FTA's) land use ratings based on employment and population density. In addition to the quantitative methods, qualitative criteria (public input and local context) were also used and are discussed in the ***Charrette and Stakeholder Coordination*** chapter.

Preferred Land Use Scenario

Scenario 4 was identified as the preferred land use scenario. This was based on factors including consistency with LPA BRT transit scenario, results and recommendations from the DTPW study, input from public charrette series, input from commissioners, input from the SAC, and the results from the scenario evaluation.

See **Chapter 4.0** for additional information on land use scenarios development and evaluation.

Station Area and Land Use Policy Recommendations

Once Scenario 4 was identified as the preferred land use scenario, further analysis and refinement of the station areas within the scenario took place. Additionally, the existing land use policies across the municipalities were reviewed and land use policy revisions were recommended that would further implement the land use vision of the SMART Plan along the East-West Corridor.

Station Area TOD Evaluation

Each of the station areas in Scenario 4 were analyzed based on a range of TOD evaluation criteria including: Station Area Characteristics, Station Area Vision, Urban Center Typology, Supportive Land Use and Zoning, and Potential Density and Intensity.

Station Typologies

The TOD analysis resulted in recommended station typologies for each station area, consistent Urban Center Typologies as defined in the *Miami-Dade County's Adopted 2020-2030 CDMP*, updated in June 2018. Three scales of centers are detailed in the CDMP: Regional, Metropolitan and Community. The recommended station typologies are displayed in **Table ES-2**.

Table ES-2 Recommended Station Typologies

Station Location	Station Type
Miami Intermodal Center	Regional
LeJeune Road	Community
57th Avenue/Blue Lagoon	Community
Blue Lagoon/60th Avenue	Community
7th Street/62nd Avenue	Metropolitan
7th Street/Milam Dairy	Metropolitan
The Wedge	Community
Mall of the Americas	Community
87th Avenue	Metropolitan
97th Avenue	Community
107th Avenue	Metropolitan
Dolphin Terminal	Metropolitan
Tamiami Terminal	Community

Land Use Policy Analysis and Recommendations

To successfully implement the land use vision for the corridor, existing land use policies were evaluated for consistency with the vision and ability to implement TOD and station area recommendations. The land use policy analysis verified that all recommended station typologies were found to be consistent with the local station area visions. However, the Future Transit Urban Center radii in the CDMP Future Land Use map would need to updated for each station. Finally, the future land use categories would need to be updated for the MIC Station, Wedge Station, and Dolphin Station.

Conclusion

Overall, the purpose of this report was to summarize the results of the Land Use Scenario and Visioning Planning Study for the SMART Plan East-West corridor. The study was completed in the summer of 2021. The study was conducted concurrently with a DTPW PD&E Study that resulted in recommending a BRT system along the East-West Corridor as the locally preferred transit alternative.

As the application for Federal Transit Administration (FTA) approval of the East-West Corridor Locally Preferred Alternative moves forward, applying this land use visioning process with newly-developed 2045 LRTP data will be important for the following reasons: by supporting housing and economic development policies which will increase population employment in each station area; and, by making recommended changes to local governments' comprehensive plans to support the land use/zoning changes. It should be noted that increased population and employment is not required to implement the SMART Plan for the East-West corridor, but is desirable to fulfilling the multimodal development vision for the area.

1.0 Introduction

In February 2016, the Miami-Dade County Transportation Planning Organization (TPO) set as its "highest priority" advancing rapid transit corridors and transit-supportive projects for the county. In April 2016, the TPO officially adopted the proposed Strategic Miami Area Rapid Transit (SMART) Plan to advance six rapid transit Corridors, along with a network of Bus Express Rapid Transit (BERT) service (**Figure 1-1**). To provide for the community to be included in the planning and visioning processes to select the best technology and land uses along each Corridor, three separate activities occurred simultaneously:

- Land Use Scenario and Visioning Planning – Lead by the Miami-Dade TPO (this study);
- Economic Mobility & Accessibility Studies – Lead by the Miami-Dade TPO; and,
- Project Development & Environmental Studies (PD&Es) - Lead by the Miami-Dade Department of Transportation and Public Works (DTPW). This study evaluated the implementation of a cost-effective rapid transit system and identify multimodal solutions for this corridor.

Report Purpose

This report addresses the development of a land use vision of the SMART Plan of the East-West Corridor.. Based on the premise that transit supportive land use plays an important role in the success of major rapid transit projects the study purpose includes the following:

- To study the direct relationship between transit and land use for all six SMART Plan rapid transit corridors;
- To promote transit use and increase mobility choices for residents, businesses and visitors along the corridor; and,
- To provide a technical basis for development of transit supportive land uses for the East-West Corridor Locally Preferred Alternative.

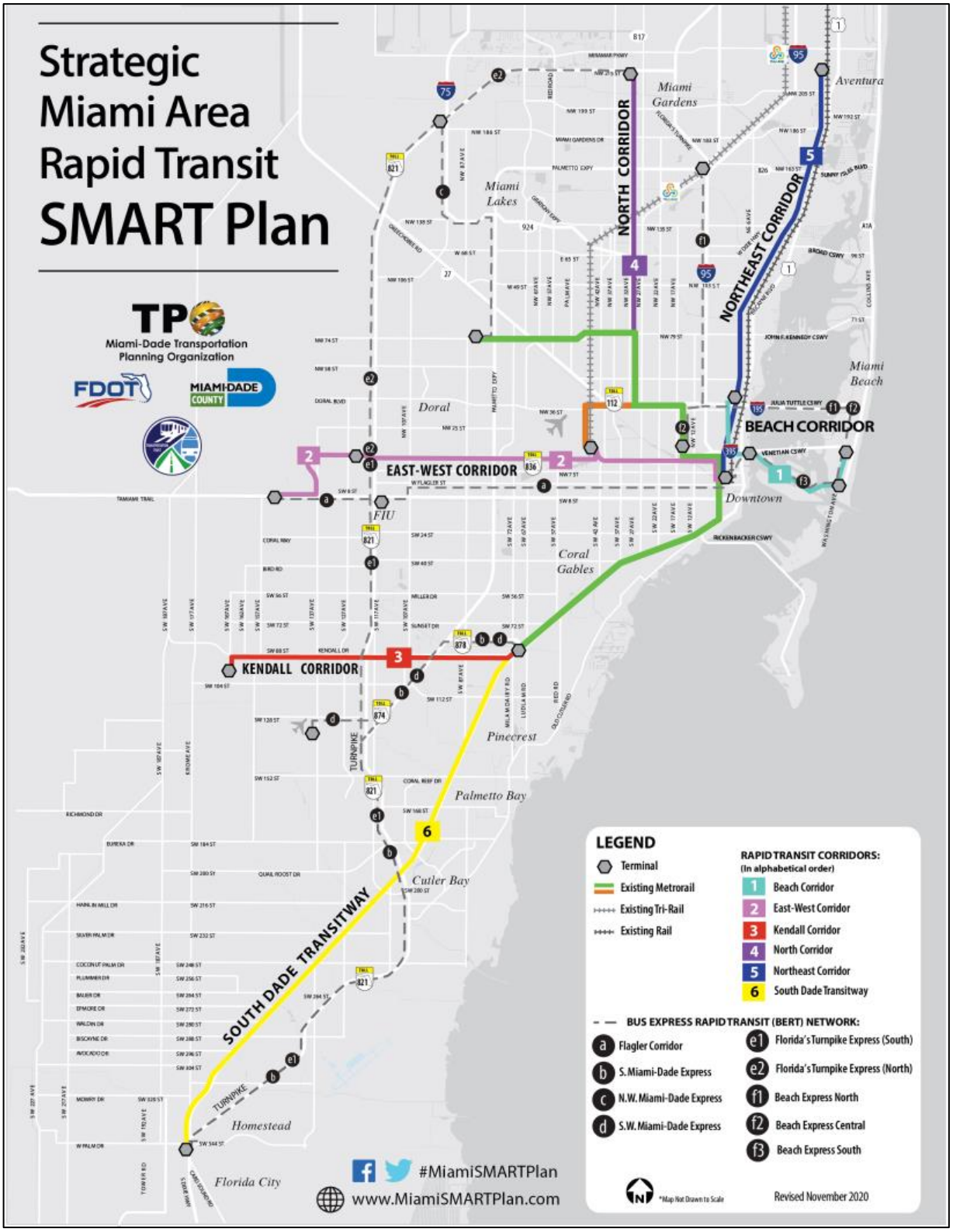
This study develops and analyzes four land use scenarios along the East-West corridor that would be supportive of the future transit plan along the corridor.

Organization of Report

The report is organized as follows:

- **Chapter 1**: Introduction
- **Chapter 2:** East-West Corridor Overview
- **Chapter 3:** Land Use Scenarios Development
- **Chapter 4:** Charrettes and Stakeholder Coordination
- **Chapter 5:** Development of Recommendations
- **Chapter 6:** Summary and Recommendations

Figure 1-1 SMART Plan Corridors



Project Limits

The initial project limits when the study began were along the Florida Turnpike/SR 836 from Florida International University (FIU) to the Miami Intermodal Center (MIC) at the Miami International Airport (**Figure 1-2**). The project limits were revised from FIU to Tamiami Terminal (**Figure 1-3**) in summer 2020 based on the DTPW PD&E study, the TPO Governing Board comments, and input from Commissioners. This means that all of the analysis and initial scenario development were based on the initial project limits to FIU whereas the refined analysis used the revised 2020 study limits to Tamiami Terminal.

Figure 1-2 Initial Project Limits

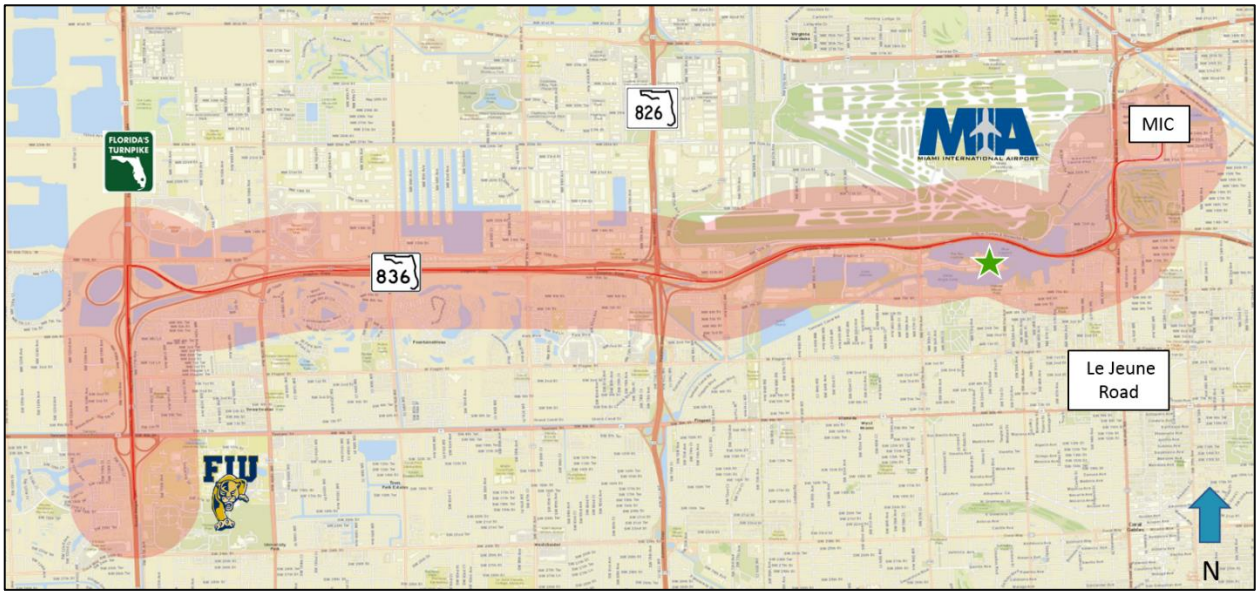
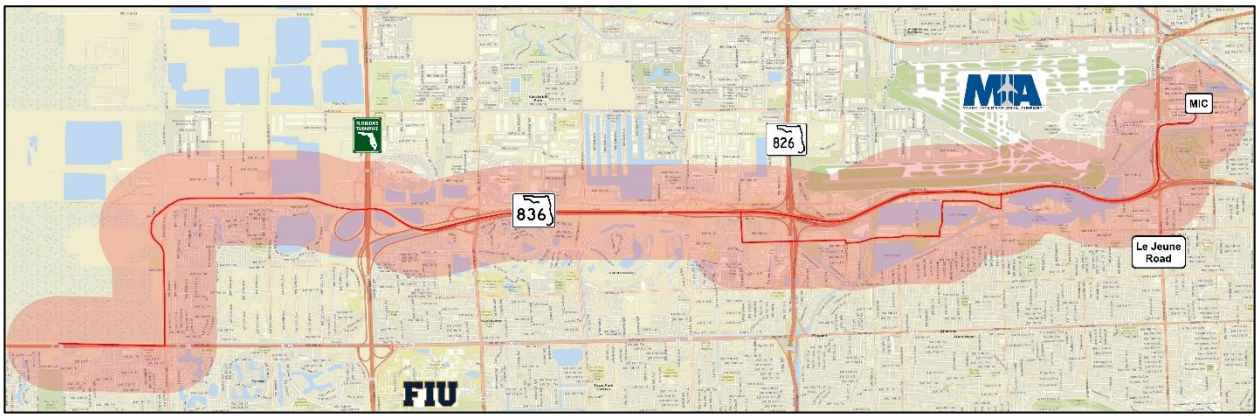


Figure 1-3 Revised Project Limits



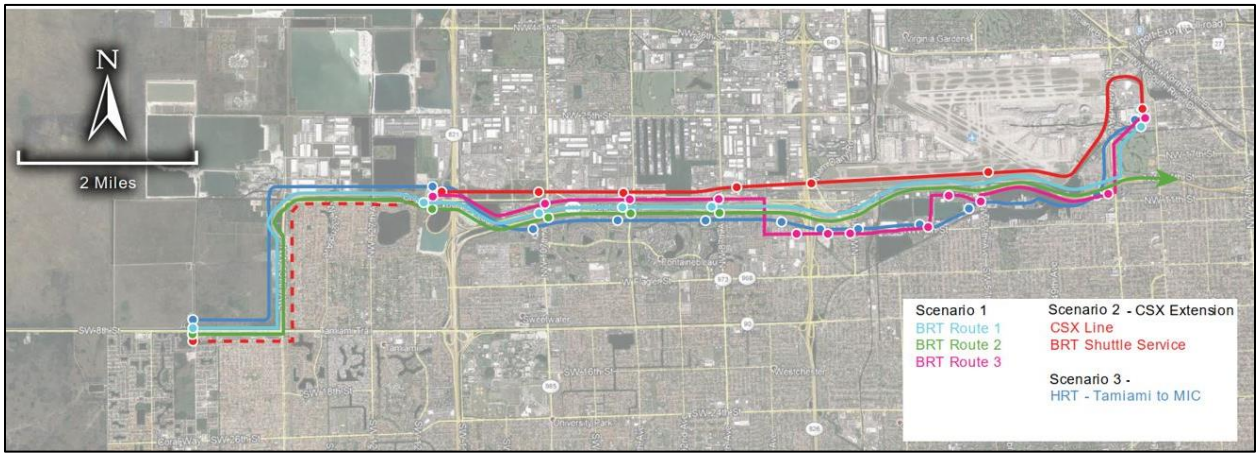
Concurrent PD&E Study: *East-West Corridor Rapid Transit Project*

DTPW coordinated the PD&E study for the East-West Corridor titled *the East-West Corridor Rapid Transit Project*. The purpose of the project included:

- Identifying the purpose and need for transit improvement;
- Selecting a locally preferred alternative;
- Identifying the 'universe of alternatives' and determining their feasibility;
- Defining viable alternatives and performing a detailed analysis; and,
- Providing connections to regional transit service improving connections to MIA and downtown Miami.

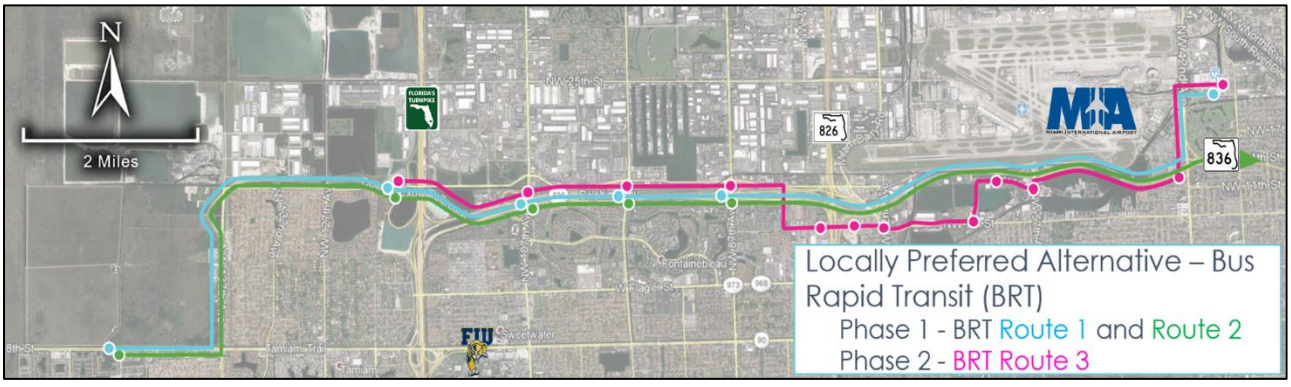
The project elements included data collection, environmental evaluations, public engagement, and engineering analysis. The PD&E study began in 2017, shortly before this study. The project reviewed three transit alternatives: Bus Rapid Transit (BRT), CSX Extension, and Heavy Rail Transit (HRT). The alternatives are shown in **Figure 1-4**.

Figure 1-4 DTPW Transit Scenarios



The study resulted in the identification of the BRT scenario as the Locally Preferred Alternative (LPA) shown in **Figure 1-5.** The LPA consists of three BRT routes implemented in two phases. This LPA was adopted in October 2020. This transit scenario was the basis for the development of thefinal land use scenario for this project.

Figure 1-5 DTPW Locally Preferred Alternative



Project Timeline

An overview of the project timeline is provided to illustrate how the study evolved over time.

Early Study Development (Fall 2017 – Summer 2018)

This study began in the 2017 with project limits from FIU to the MIC along the Florida Turnpike/SR 836. The study area included a half-mile buffer on either side of the corridor. The initial study demographics, data, and analysis took place through the end of 2017 in addition to two Study Advisory Committee (SAC) meetings. The first public charrette was held In January 2018, and three land use scenarios were developed in Spring 2018. SAC Meeting 3 was held in June 2018, and the land use scenarios were refined by the summer of 2018.

Middle Study Development (Summer 2018 - Summer 2020)

The DTPW PD&E study continued working on the Tier 2 alternatives During this time, travel demand modeling was conducted of the three scenarios and the DTPW PD&E Study was tracked.

DTPW PD&E Study Results (Summer/Fall 2020)

Based on the results of the PD&E study, the project limits shifted from FIU to the Tamiami Terminal. The project limits shifted based on TPO Governing Board comments at the May 2020 meeting and subsequent meetings with Commissioners. The study recommended the Locally Preferred Alternative (LPA) for Bus Rapid Transit (BRT) along the corridor, which was adopted in October 2020.

Final Study Development (Winter 2020 – Summer 2021)

A fourth scenario was developed, initially analyzed, and refined based on the adopted LPA BRT scenario in November 2020. A SAC meeting was held in December of 2020, and the second public charrette series was held in February 2021. The final SAC meeting was held in April 2021. The study was finalized in the Summer of 2021.

2.0 East-West Corridor Overview

This chapter provides a summary of documents reviewed as part of Land Use and Visioning Planning for the East-West SMART Plan Corridor. This Land Use and Visioning Plan was developed with the recognition that transit supportive land uses play an important role in the success of major transit investments such as the SMART Plan. The SMART Plan is intended to help achieve community goals through the integration of transportation and land use planning and the development of strategies. This study provides the technical basis for the development of transit supportive land uses for the East-West SMART Plan corridor.

The initial project limits when the study began in were along the Florida Turnpike/SR 836 from Florida International University (FIU) to the Miami Intermodal Center (MIC) at the Miami International Airport. The project limits were revised from FIU to Tamiami Terminal in Summer 2020 based on the DTPW PD&E study, the TPO Board comments, and input from Commissioners. The early analysis and initial scenario development were based on the initial project limits to FIU whereas the refined analysis used the revised 2020 study limits to Tamiami Terminal.

Activity centers identified during the study include the Miami International Airport (MIA)/Miami Intermodal Center (MIC), the Blue Lagoon development, the Corporate Center Drive area, the Mall of the Americas, NW 87th Avenue area, and the International and Dolphin Malls. Other area activity centers not located on the Corridor include Florida International University (FIU), downtown Doral, downtown Coral Gables, and the Hialeah Market area.

Additionally, recent census and employment data have been released since this study began. This overview is based on data that was available at the time the analysis was conducted.

2.1 SMART Plan Corridor Inventory Study

The *SMART Plan Corridor Inventory Study* (study), completed in 2017, provided a synopsis of available demographic and socioeconomic data for the East-West Corridor of the SMART Plan. The study was comprised of three major components: a literature review, a corridor profile, and a needs analysis. The study used the initial project limits to FIU, and is not representative of the revised project limits to Tamiami Terminal.

Corridor Profile

The corridor profile was developed to establish a complete picture of the existing conditions within the East-West Corridor to provide an understanding of land use patterns and highlight inconsistencies that are not transit supportive. The corridor profile summarizes socioeconomic conditions, the transportation network, zoning and land use, and property values. Socioeconomic conditions data was collected using the FDOT Environmental Screening Tool (EST) Sociocultural Data Report (SDR). The SDR uses the Census 2015 American Community Survey (ACS) data and reflects the approximation of the population based on a project buffer intersecting the Census Block Groups along the project corridor.

General Socioeconomic Conditions:

- Total Population: 64,000*
- Households: 20,279
- Occupied dwelling units:: 89%
  - Renter Occupied: 54%
  - Owner Occupied: 46%
- Composition by Race:
  - White: 94%
  - Black: 1.4%
  - Asian: 1.2%
  - Other: 3.4%
- Ethnicity: 93% Hispanic
- Median Household Income: $37,802
- Households Below Poverty Level: 21.64%
- Higher Education Students: 40,261
- Median Age: 41
  - Under 21: 25%
  - Over 65: 15%
- Non-English-Speaking Population: 30%

**Note: It was later discovered that some of the 2015 ACS data for the corridor was flawed. Therefore, for the purposes of this study, figures from the SERPM 7 (2010 Census) were used which had the total population of the corridor at approximately 118,000.*

Housing

There are 29,078 housing units within the study area. A housing unit is a residence such as a house, apartment, mobile home, or room(s) within a larger structure that provides a space for occupants making up single household to live and eat. Many of the units (85.1%) are either condominiums (59.2%) or multifamily (25.9%). Less than 10% of the available housing is single family (8.4%). The remaining units are either mobile homes (3.1%), duplexes (2.6%), or townhouses (0.7%). Of the total housing units, approximately 89.5% are occupied, meaning 10.5% are considered vacant. Most of the occupied units are renter occupied (53.9%), whereas approximately 46.1% are owner occupied. **Table 2-1** displays a summary of housing types.

Table 2-1 Housing Units by Type

Housing Type	# of Units	% of Units
Condominium	17,218	59.2%
Multifamily	7,533	25.9%
Single Family	2,446	8.4%
Mobile Home	908	3.1%
Duplex	768	2.6%
Townhouse	205	0.7%
Total	**29,078**	**100.0%**

Source: Miami-Dade County Property Appraiser GIS layer
Prepared by Miami-Dade County, Department of Regulatory and Economic Resources, Planning Research and Economic Analysis, September 2016.

Employment

Employment data was derived using 2010 socio-economic data from the Southeast Florida Regional Planning Model (SERPM7). According to the analysis, there were approximately 112,000 employees within the corridor study area in 2010. The highest employment sectors were Wholesale and Warehousing (12%), Retail and Transportation (14%), and Professional and Business Services (19%). **Table 2-2** provide a more detailed breakdown of the study area employment.

Table 2-2 Employment Summary, 2010

Employment Sector	Employees	Percent
Professional/Business	21,013	18.75%
Transportation	15,651	13.97%
Retail	15,150	13.52%
Wholesale/Warehousing	13,082	11.68%
Public	9,820	8.76%
Education	6,645	5.93%
Manufacturing	6,347	5.66%
Restaurants	5,740	5.12%
Health	5,207	4.65%
Personal Services	4,934	4.40%
Construction	4,768	4.26%
Hotels	2,331	2.08%
Amusement	986	0.88%
Agriculture	366	0.33%
Utilities	10	0.01%
Total Employees	112,050	100.00%

Roadways

The major roadways within the corridor include SR 836/ Dolphin Expressway, SR 826/Palmetto Expressway, and the Homestead Extension of Florida's Turnpike (HEFT). All three roadways are currently operating at Level of Service (LOS) F. SR 836/Dolphin Expressway, SR 826/Palmetto Expressway and the Homestead Extension of Florida's Turnpike (HEFT) are the major highways passing through the Corridor. SR 836/Dolphin Expressway is the primary east-west connection and carries close to 200,000 vehicles per day in the segment between SR 826 and LeJeune Road. SR 836 west of SR 826/Palmetto Expressway provides access to the HEFT and continues further west to SR 825/NW 137th Avenue. SR 826/Palmetto Expressway carries over 260,000 vehicles per day and the HEFT carries close to 121,000 vehicles per day. During peak periods, all three major highways operate over capacity and experience significant delays.

NW 12th Street is an east-west arterial that runs north of and parallel to SR 836/Dolphin Expressway along the entire length of the Corridor. The annual average daily traffic (AADT) volumes along NW 12th Street range from 25,000 to 34,000 vehicles per day west of Palmetto Expressway. NW 12th Street continues as Perimeter Road east of NW 72nd Avenue/Milam Dairy Road.

NW 7th Street east of NW 87th Avenue also runs parallel to SR 836/East-West Expressway and serves as one of the key roadway facilities, providing access to several activity centers including the Mall of Americas, retail outlets, wholesale outlet, home improvement retail chain, elementary school and multi-family housing west of SR 826/Palmetto Expressway. The AADT volumes on NW 7th Street range from 20,000 to 28,000 vehicles per day east of SR 826/Palmetto Expressway. West of SR 826/Palmetto Expressway, the daily traffic volume on NW 7th Street is close to 13,000 vehicles per day.

NW 107th Avenue, NW 87th Avenue, NW 72nd Avenue, NW 57th Avenue and NW 42nd Avenue are the major north-south arterials that provide access to the Corridor via interchanges with SR 836/Dolphin Expressway. The AADT volumes along these arterials in the vicinity of SR 836 are greater than 40,000 vehicles per day. NW 97th Avenue intersects with NW 12th Street and NW 7th Street but does not have an interchange with SR 836.

Total Vehicles and Truck Volume

The roads with the highest vehicle volumes include SR 826/Palmetto Expressway, and the HEFT between SW 8th Street and NW 2nd Street. The roads with the highest truck volumes include the HEFT, the Palmetto Expressway, and SR 836 west of the Palmetto Expressway.

Railroads

There are two railway lines traversing the study area, which include CSX and the Florida East Coast (FEC) railroad. There is a total of eleven railroad crossings within the study area**.** The CSX runs parallel on the northside of SR 836 between Miami International Airport and the Dolphin Terminal, with at-grade crossings are located on:

- NW 42nd Avenue
- NW 57th Avenue
- NW 72nd Avenue
- NW 78th Avenue
- NW 82nd Avenue
- NW 84th Avenue
- NW 87th Avenue
- NW 12th Street (east of NW 72nd Avenue and west of NW 87th Avenue)
- NW 107th Avenue
- NW 111th Avenue

There are no railroad crossings for the FEC within the study area.

Parking

The parking accommodations for transit service within the corridor include: the Miami Intermodal Center (MIC), the Dolphin Station Park-and-Ride Lot and Transit Facility, and the Tamiami Terminal Park-and-Ride Lot. There are also major nearby facilities, including shopping centers/malls and the Florida International University (FIU) campus.

- Miami Intermodal Center (MIC): Serves as a transportation hub designed to accommodate transportation connections between Metrorail, Tri-Rail, Amtrak, Greyhound, taxis, rental cars, the Metromover, and Metrobus routes. Along with elevated MIA Mover platforms, bus stops, bus stations, and room for future private development. **Figure 2-1** displays a photo of the MIC. Parking for the MIC is positioned east of the Rental Car Center (RCC), bounded by NW 25th Street on the north, NW 37th Avenue on the east, NW 21st Street on the south, and NW 38th Court on the west. The MIC provides 483 total parking spots, and room for future private development.

Figure 2-1 MIC Photo

- Dolphin Terminal: The Dolphin Terminal is on a 15-acre publicly owned parcel on NW 12th Street, west of the Turnpike and east of NW 122nd Avenue. The Dolphin Station location is displayed in **Figure 2-2** and a rendering of the station is in **Figure 2-3.** A need for this park and ride/transit terminal facility was identified to serve as transit hub for the SR 836 Express Bus Service as well as corridor BRT routes. Dolphin Station will provide a viable commute alternative for potential transit riders from Doral, Sweetwater, and other residential areas of West Dade to major employment areas such as MIA, the Health District, Downtown, and Brickell. It will also provide service for reverse commuters from the east to Doral, Dolphin, and International Mall, and FIU. Project elements include 849 long term parking spaces and 20 short term parking spaces; 12 bus bays and 10 bus layover bays; a transit hub with passenger waiting areas and retail space; a driver's break lounge; bicycle racks and storage; landscaping, signage, fencing, and lighting; and 'Kiss-and-Ride' drop off areas. A groundbreaking event was held on January 23, 2017 to formally mark the start of construction of the project. This station was opened to service in March 2020.

Figure 2-2 Dolphin Station Project Location

Source: Dolphin Station Fact Sheet, www.miamidade.gov

- Florida International University (FIU): A bus station is under construction on FIU campus called the Panther Station, located near two existing parking garages along SW 8th Street between SW 112th and SW 109th Avenues. Additionally, FIU constructed Parking Garage 6 (PG 6) at this location **(Figure 2-4**).

Figure 2-4 Dolphin Station Rendering

Source: Dolphin Station Fact Sheet, www.miamidade.gov

Figure 2-3 FIU Parking Garage 6 and Bus Station

Source: Facchina Construction of Florida; Smith Aerial Photos, 2/24/2015; www.facilities.fiu.edu

Other Community Features

- Libraries: International Mall Branch Library, Third District Court of Appeal Law Library, ITT Technical Institute Learning Resource Center – Miami Library, and NOAA Miami Regional Library – National Hurricane Center Branch Central Library
- Hospitals: Metropolitan Hospital of Miami
- Government Buildings: Miami-Dade County Health Department – West Dade Family Planning Clinic, US Post Offices – Miami EAP Office Space and Avenue of the Americas, and Third District Court of Appeal
- Schools: El Redentor Presbyterian, ITT Technical Institute, University of Miami, US international Christian Academy, Vann Academy, Marjory Stoneman Douglas Elementary, Paul W. Bell Middle, Dr. Carlos J. Finlay Elementary, and George T. Baker Aviation School

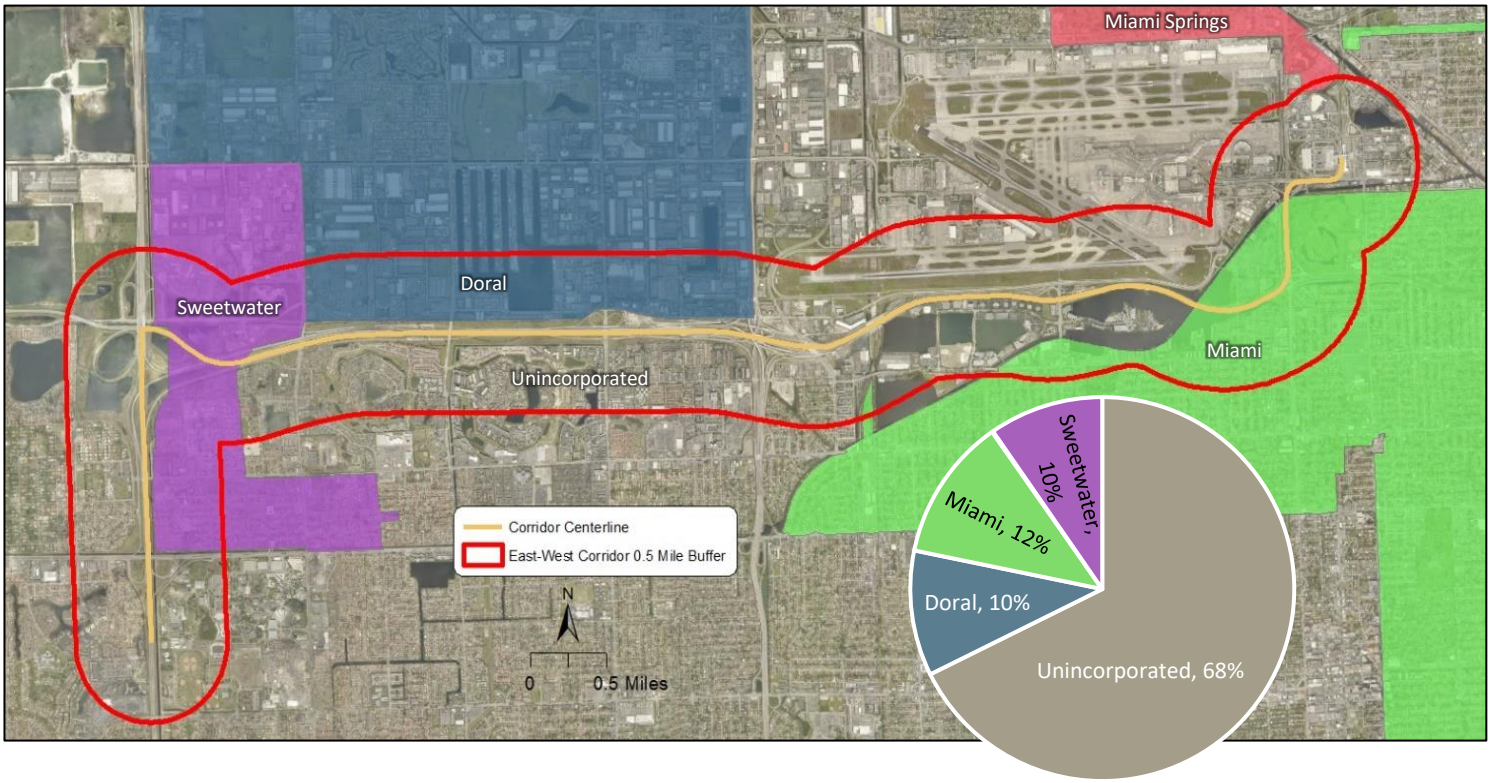
Study Area Jurisdictions

The study area spans five municipalities, each with their own set of the zoning and land use regulations. The five municipalities are: unincorporated Miami-Dade County, the City of Doral, the City of Miami, the City of Miami Springs, and the City of Sweetwater. As displayed in **Table 2-3** much of the study area (68%) is unincorporated Miami-Dade County. Additionally, the City of Miami comprises 12% of the study area, the City of Doral 10.6%, the City of Sweetwater 9.6%, and the City of Miami Springs less than 1%. **Figure 2-5** displays a map of the municipalities within the study area. The municipality zoning and land use districts were grouped into generalized categories for the purposes of comparison.

Table 2-3 Study Area Municipalities

Municipality	Acres	% of Total Acreage
Unincorporated	4,958.40	67.7%
City of Doral	773.14	10.6%
City of Miami	882.03	12.0%
City of Sweetwater	706.30	9.6%
City of Miami Springs	6.62	0.1%
Study Area	**7,326.49**	**100.0%**

Figure 2-5 Study Area Municipalities



Zoning

As displayed in **Figure 2-6** and summarized in **Table 2-4**, approximately one third of the project area is comprised of General Use zoning districts, which mostly includes MIA, the MIC, and FIU. An additional one-third of the project area is either Industrial (22.4%) or Commercial zoning (9.2%). Standalone residential uses comprise approximately 22% of the study area whereas mixed-use residential comprises 4.5%.

Figure 2-6 Generalized Zoning

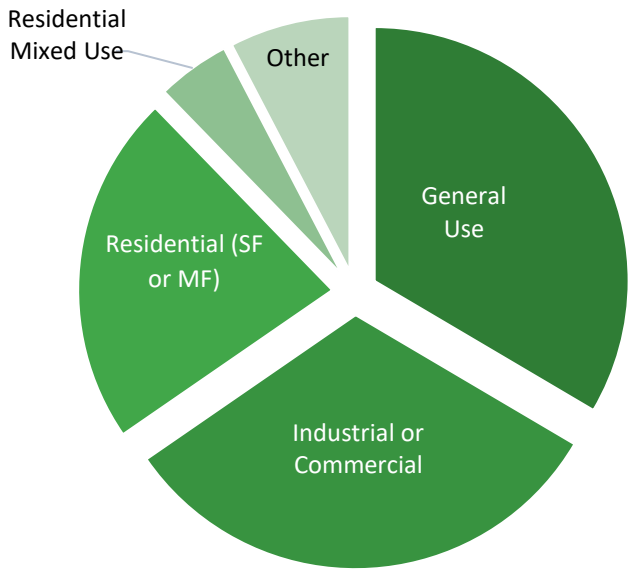


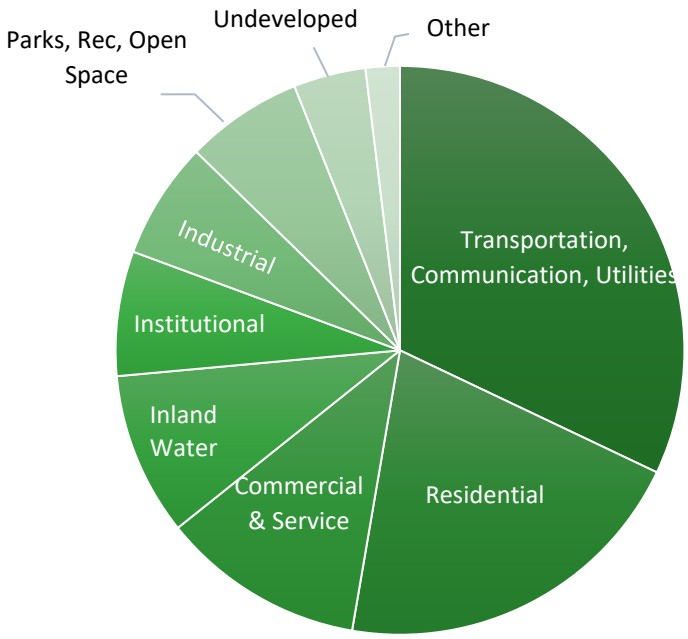
Table 2-4 Generalized Zoning Districts

Zoning Description	Acreage	% Acreage	Zone(s) Included
General Use	2,216.4	33.1%	GU, IU
Industrial	1,496.6	22.4%	IU-1 to IU-3, IU-C, I, I-1 to I-3
Residential Multi-Family	947.6	14.2%	RU, T4-R, T5-R, RM-15, RM-24
Commercial	616.5	9.2%	BU-1, BU-1A, BU-2, BU-3, CC, C-1 to C-3, AT
Residential Single Family	530.8	7.9%	EU-1, EU-M, RU-1, RU-2, RU-TH, T3-L, T3-O, T3-R, RD, RTW, T-1
Residential-Commercial	304.2	4.5%	PAD, T4-L, T5-L, T5-O, T6-8-L, T6-8-O
Public	175.1	2.6%	CS
Urban Centers	152.2	2.3%	PLMC
Institutional/Public Admin.	142.3	2.1%	GP, CI
None	72.1	1.1%	No zoning designated
Office	17.2	0.3%	OPD
Agriculture	11.4	0.2%	AG
Industrial Commercial	8.3	0.1%	IC
Residential-Office	1.7	0.0%	RU-5
Total	**6,692.5**	**100.0%**	-

Land Use

The existing land use data was produced by the Research Section of the Planning Division, Department of Regulatory and Economic Resources (RER) for Miami-Dade County. The existing land uses are illustrated in **Figure 2-8** on the following page and summarized in **Table 2-5 and Figure 2-7.**

Figure 2-7 Generalized Land Use

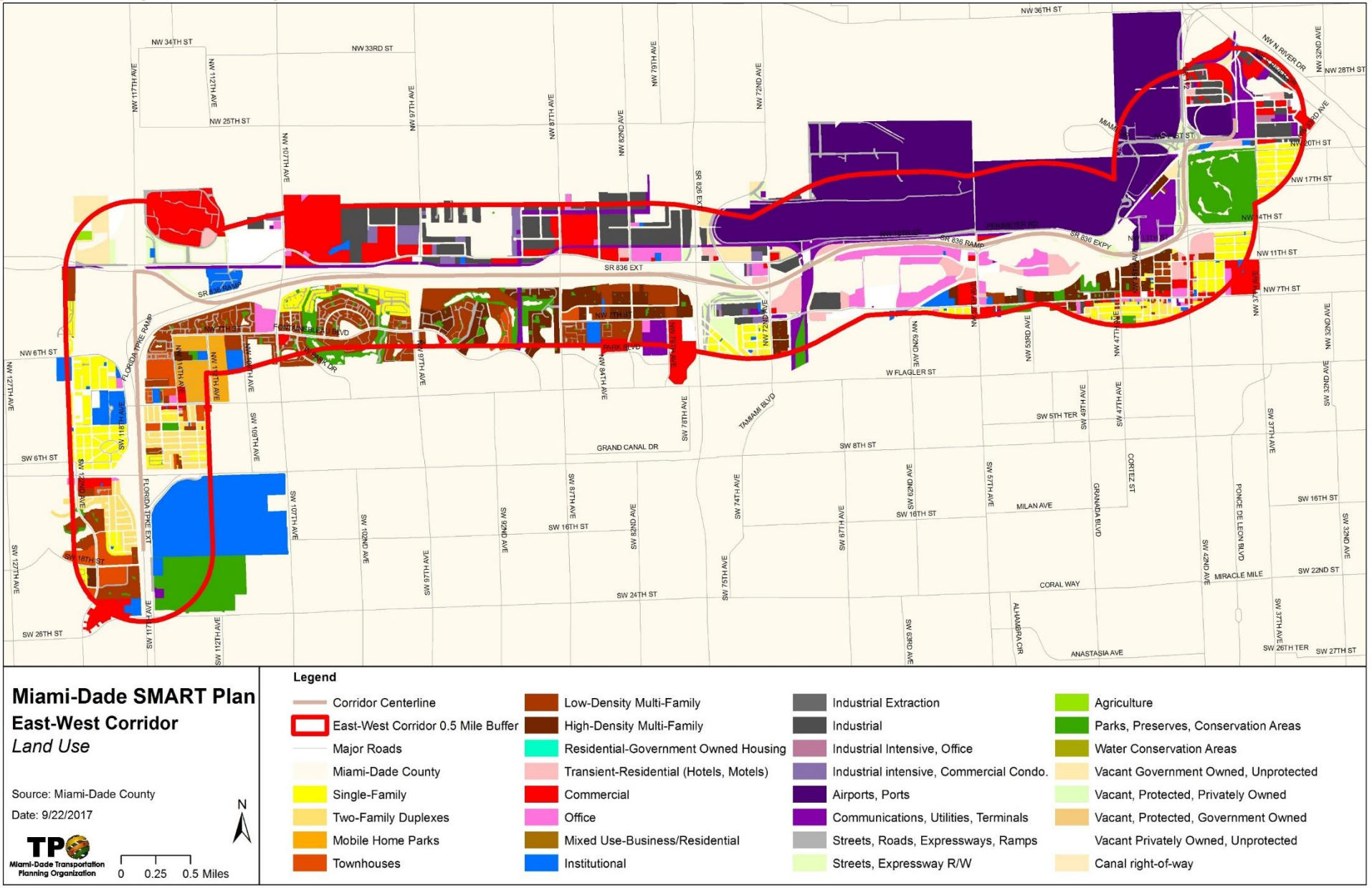


To summarize, the land use category with the most acreage is Transportation, Communication, Utilities with 2,146 acres, comprising approximately 32% of the total land area, which mostly includes MIA and the MIC. The second highest category is Residential with 1,381 acres, covering approximately 21% of the land area. Industrial and Parks, Recreation, and Open Space contain about 445 acres each (6.7%). Approximately 4.1% of the land area is undeveloped (275 acres). Less than 2% of the project area has a Hotel/Motel use, and less than 1% is used for Agriculture.

Table 2-5 Existing Land Use

Existing Land Use Category	Acres	% Acreage
Transportation, Communication, Utilities	2,145.50	32.1%
Residential	1,381.23	20.6%
Commercial and Service	774.45	11.6%
Inland Water	621.00	9.3%
Institutional	474.33	7.1%
Industrial	445.66	6.7%
Parks, Rec, Open Space	445.40	6.7%
Undeveloped	274.89	4.1%
Hotel/Motel	125.02	1.9%
Agriculture	4.99	0.1%
Total	**6,692.47**	**100.0%**

Figure 2-8 Existing Land Use Map



Farmlands

There are 5.99 acres (0.8%) of Prime Farmlands – Farmlands of Unique Importance.

Wetlands

According to the National Wetlands Inventory (NWI), there are a total of 957.64 acres of wetlands within the project area. Of the total wetlands, 493.1 acres (51.5%) are lacustrine wetlands; 447.76 (46.8%) are palustrine wetlands; and 16.78 acres (1.8%) are riverine wetlands. Additionally, the SFWMD Restoration Project Eastern C-4 Structure is located within the study area. Critical Restoration Projects are considered critical environmental restoration efforts.

Flood Zones

Approximately 61% of the study area is classified as a Special Flood Hazard Area (i.e., flood zones AH and AE). Zone AH consists of 2645.51 acres (31.2%), and Zone AE consists of 2,192.63 acres (30.17%).

2.2 Property Values and Built Environment

The property values and built environment information was derived using the Department of Revenue Property (DOR) Classification Codes that identify land use. The DOR codes are a combination of the State Land Use Code (SLUC) and the County Land Use Code (CLUC). Summarized information in this section includes the number of parcels, total area of parcels, building size, land value, building value, market property value, and assessed property value for land use types within the study area per the **Miami-Dade County Property Appraiser Parcel Database, 2016**.

To summarize, within the project area there are 4,258 parcels encompassing 6,473 acres. The total square footage of existing building area is approximately 51.8 million square feet, with an estimated property value of $5.4 billion. Government parcels comprise the most area with 2,725.5 acres covering 42% of the project area. Residential uses comprise the second highest land area, with 1,465 acres covering 23% of the project area.

Additionally, Residential uses comprise the most building area, with approximately 12.8 million square feet. Government uses have the second highest building area (i.e., 11 million square feet), and Industrial has the third highest building area (i.e., 8.8 million square feet).

Furthermore, Government, Residential, and Industrial uses have the highest property values (i.e., $1.3 billion, $1.1 billion, and $1 billion, respectively). The average property value figure is the result of the appraised land value and building value of the use type.

Further details about thep property values and built environment of the East-West Corridor are included in the *Smart Plan Corridor Inventory, East-West Corridor Report (2017)*.

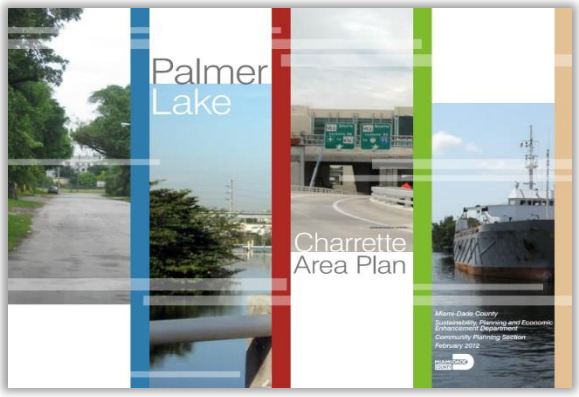
2.3 Literature Review

A regional and nationwide literature review of planning initiatives was conducted with a focus on transportation and land use connections and implementation measures. The purpose of the literature review was to survey applicable transit programs and implementation methods that may offer strategic ideas or provide guidance for the overall SMART Plan implementation, with an emphasis on sources pertaining to the East-West Corridor.

The information gathered during the literature review was utilized for the development and evaluation of alternative land use scenarios. The following sources were reviewed for preparation of this report:

- CSX East-West Corridor TOD Study (2016)
- Miami 21 (2016)
- Palmer Lake Charette Area Plan (2012)
- FIU Campus Master Plan (2010 – 2020)
- Miami International Airport Strategic Airport Master Planning Study (SMP 2015-2050)
- TOD guidelines by Miami-Dade County and FDOT ESRI's 3D Land Use Evaluation Tool Guide documentation and training material
- The Federal Transit Administration's New Starts funding criteria

A nationwide literature review was also conducted. The results are summarized in **Appendix A.**



Local Transit-Oriented Development (TOD) Guidelines, Studies, and Master Plans

Four existing TOD guidelines developed for the area were reviewed. As a result of the review, it is evident that a policy foundation has been set for the corridor to move forward with TOD within the corridor. The four documents reviewed were:

- CSX East-West TOD Study (2016)
- Miami 21 (2016)
- Palmer Lake Charrette Area Plan (2012)
- FIU Campus Master Plan (2010-2020)

CSX East-West Corridor TOD Study (2016)

The purpose of this report was to identify the land use measures necessary to promote TOD at identified station areas along the East-West Corridor to advance a viable premium transit corridor. Building upon previous studies' efforts, this study identified TOD opportunities that will improve the link between existing transit demand and land use development throughout the corridor. The following TOD opportunities and constraints were recognized in this study:

- There is limited pedestrian connectivity - Many of the residential developments were constructed around man-made lakes and golf courses, disconnecting them from the overall roadway network. This limits the pedestrian activity and concentrates vehicle flows to major arterials.
- Transit continuity is present to warehouse districts and employment centers - The corridor provides access and links to large employment centers in the region (MIA, Doral, Blue Lagoon, Downtown Miami, Health District), tied together by the MIC.
- Key success factors for TOD - Key success factors include land use, political support, supporting anchor institutions, locally adopted plans and policies, and developer interest or capability.
- Land use patterns have hindered transit planning efforts to date - The corridor has TOD potential due to its significant job and employment concentrations, but land use patterns have served as a hindrance causing relatively little transit coverage for the area.
- Initial station locations - The following four station locations were identified as having high ridership potential and the strongest opportunity to sustain TOD:
  - NW 82nd Avenue identified as the best location for short term development (five years) due its pedestrian-friendly environment.
  - NW 107th Avenue identified for its long- and short-term development potential - It is near two regional attractors (Dolphin and International Malls) and has over 40 acres of adjacent land adjacent to the station location. However, the existing auto-oriented urban form is a challenge for this station.
  - Dolphin Station Park-and-ride and transit terminal is scheduled for this location, located at the northwest corner of HEFT and the Dolphin Expressway. Has proximity to two major highways providing for accessibility for north-south commuters.
- Secondary station locations - NW 57th Avenue, NW 72nd Avenue, NW 97th Avenue

Miami 21 (2016)

Miami 21 is the City of Miami's zoning code, which was most recently amended in May 2016. The code includes building design criteria, parking standards, site design criteria, and bicycle and pedestrian elements that promote TOD.

- 2.1.3.1 The City – Guiding Principles
  - b. Growth strategies should encourage infill and redevelopment.
  - c. New Development should be structured to reinforce a pattern of Neighborhoods and urban centers, focusing growth at transit nodes rather than along Corridors.
  - f. The City should include a framework of transit, pedestrian, and bicycle systems that provide alternatives to automobile use.

- Article 4, Table 5 Shared Parking Standards - Provides a method for calculating shared parking for buildings with more than one Use type.

- Article 4, Diagram 11 Transit Oriented Development - Portrays the Official Miami 21 TOD diagram depicting future transit sheds, ½ mile transit sheds, and ¼ mile pedestrian sheds. The MIC Station is identified on this diagram.

- Article 4, Table 12 Design Review Criteria
  - Articulate Building Façade at street level to recognize pedestrian continuity and interest
  - Design Facades that respond primarily to human scale and promote pedestrian interaction
  - Minimize the impact of automobile parking and driveways on the pedestrian environment and adjacent properties, especially T3 areas
  - For pedestrian and vehicular safety, minimize conflict points such as the number and width of driveway curb cuts
  - Minimize off-street parking adjacent to a thoroughfare front, and where possible locate parking behind the building

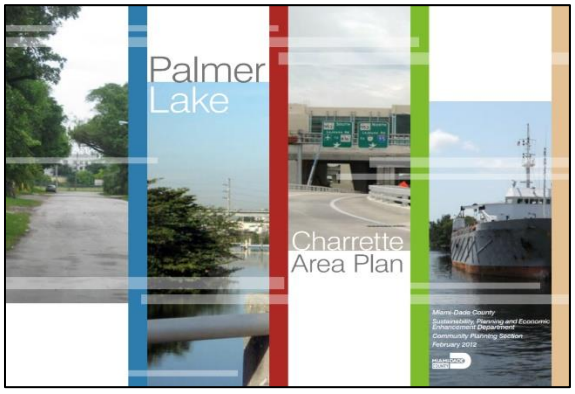
In addition to zoning, Miami 21 includes Transects or Form-Based Zoning codes as a method of regulating development to achieve a specific urban. Generally, the properties within the City of Miami within the corridor fall within Transects 3 through 6 ('T3', 'T4', 'T5', 'T6') and Civic (CI). Transects 3 and 4 cover primarily the residential land cover of the corridor, and Transects 5, 6, and CI apply to the mixed-use, office, industrial, and commercial land cover of the corridor. The following selected provisions within these transects also serve as TOD guidelines for the corridor:

- Transect Zones T5, T6, CI buildable sites shall Enfront a vehicular Thoroughfare or a Pedestrian Passage, with at least one Principal Frontage.
- Off-street bicycle parking shall be provided for all T4, T5, T6, and CI zones

- Design conflict between vehicular, bicycle, and pedestrian movement should be decided in favor of the pedestrian.
- T4 - T6: Surface parking lots, garages, loading space, and service areas shall be masked from the Frontage by a Linear Building or Streetscreen.
- T4 – T6: The Facades on Retail Frontages shall be detailed as storefronts and glazed with clear glass no less than 70% of the Sidewalk level Story.
- T5, T6: Buildings shall have their principal pedestrian entrances on a Frontage Line or from a Courtyard at the Second Layer.
- T5, T6: At the first Story, Facades along a Frontage Line shall have frequent doors and windows; pedestrian entrances shall occur at a maximum spacing of 75 feet
- T5, T6: For sites with 340 feet Frontage length or more, a cross-block passage shall be provided.

Palmer Lake Charette Area Plan (2012)

This plan was developed over a series of meetings with area residents and other stakeholders to share their vision for the future of the Palmer Lake Area. The following TOD opportunities were identified in this plan:



- Pedestrian-oriented and mixed-use development of the MIC Core area. The approximately 35 acres east of MIC was identified as the 'Core' in this plan and includes the MIC joint development area and extends east to about NW 35th Avenue. It is recommended since this area adjoins the most pedestrian-oriented portions of the MIC, future development that occurs here should be pedestrian-oriented as well. Specific design standards recommended for the MIC Core include:
  - Lower floors of buildings should fill their entire lot, or be placed along the perimeter of the property
  - Ground floors should be occupied by uses which provide interest for passing pedestrians
  - Primary building entrances should be located near the property line, facing the primary adjoining street
  - Parking and service areas should be internalized and screened from surrounding streets
  - Sidewalks should be at least 15-feet wide
  - The minimum floor area ration (FAR) should be greater than 3.0
  - A network of elevated walkways extending from the Central Station throughout the Core area should be developed

- Redevelopment of the Bertram property potential. Continued use and expansion of the property as a boat manufacturing or other industrial facility should be allowed. However, if some or all the industrial activity is relocated from this property, it would serve as an excellent opportunity for redevelopment due to its exceptional location, access size, and proximity to the MIC. As of August 2021, Bertram Yacts is now owned by another company but has the same use.

- Redevelopment of the Gumberg and Hertz properties. These properties located between NW 22nd and 24th Streets and 36th and 37th Avenues total approximately seven acres are currently used as for surface parking. These properties would be more suitable for hotel and street facing retail uses. As of August 2021, the Gumberg and Hertz properties are still being used for warehousing and distribution.

FIU Campus Master Plan (2010 – 2020)

The currently adopted FIU Campus Master Plan (CMP) was reviewed for existing TOD guidelines, with selected excerpts from the CMP summarized below. Overall, the CMP emphasizes locating automobile uses on the edges of campus, connecting to future transit hubs and opportunities, promoting bicycle and pedestrian connections, and utilizing landscape design and placemaking techniques to promote TOD. The CMP identifies Parking Garage 6 (PG6) as the transit hub, consistent with the Panther Station detailed later in this report.

- 3.0 Urban Design Element
  - Goal: Focus on improving walkability by providing comfortable, shaded, and direct circulation opportunities. As FIU continues to grow, and parking is concentrated at the periphery of each campus, improving walkability will be a critical component.
  - Policy 1.1.4: Promote bicycle, pedestrian, and mass transit connectivity between the university community and recreational facilities.
  - Policy 1.2.14: Create an enhanced transit stop with one articulated and one regular bus stop with covered seating and landscape along SW 107th Avenue to allow for enhanced connectivity to public transportation.
  - Policy 1.7.1: Create effective and continuous pedestrian and visual linkages with strong axial orientations. Enhance these linkages with canopy trees, building placement and articulation, varying landscape features, and strategically located art pieces.
  - Policy 1.7.2: Create a system of interconnected covered walkways, both architectural and landscape, to link facilities.
  - Policy 1.7.4: Cluster academic and support functions with buildings and academic neighborhoods that are characterized by compactness, compatibility of use, continuous pedestrian corridors, and covered walkways.
  - Policy 1.7.5: Distribute campus parking outside the academic core to minimize pedestrian-vehicle conflicts, walking distances, and promote a pedestrian-oriented campus.

- 11.0 Transportation Element
  - Goal 1.1 Transit: FIU will continue to develop, operate, and maintain a multi-modal circulation system.
  - Objective 1.1.1 Transit: FIU will coordinate with MDT and local/host communities to determine the best and highest use for the transit proposed to serve the campus.
  - Policy 1.1.1.2: Maintain existing transit hub and evaluate relocation to PG6 pending support from MDT.

- Policy 1.1.1.4: Encourage MDT to continue increased frequency of service and provide express bus service, weather-proof shelters, and weather-proof access to transit terminals.
- Policy 2.1.1.1: Enhance pedestrian and bicycle facilities that improve connectivity to host communities and local/regional transit facilities.
- Policy 2.1.1.4: Realign current campus loop road to traverse between Panther Garage and Carlos Finlay Elementary School and connect to the improved SW 115th Avenue.
- Policy 3.1.1.4: Parking structures and surface lots shall be designed with internal walkways to be fully integrated with the campus pedestrian and traffic circulation system.
- Policy 3.1.2.3: Transit in Lieu of Parking – Provide annual or semester passes for public transit to students rather than a parking pass.
- Policy 3.1.2.4: Improving Transit Facilities - Provide user-friendly transit stop locations on campus that are inclement weather protected and encourage usage.
- Policy 3.1.2.9 Transit Oriented Development – Introduce TOD in the planning study areas to encourage transit ridership.

Miami International Airport Strategic Airport Master Planning Study (SMP 2015-2050)

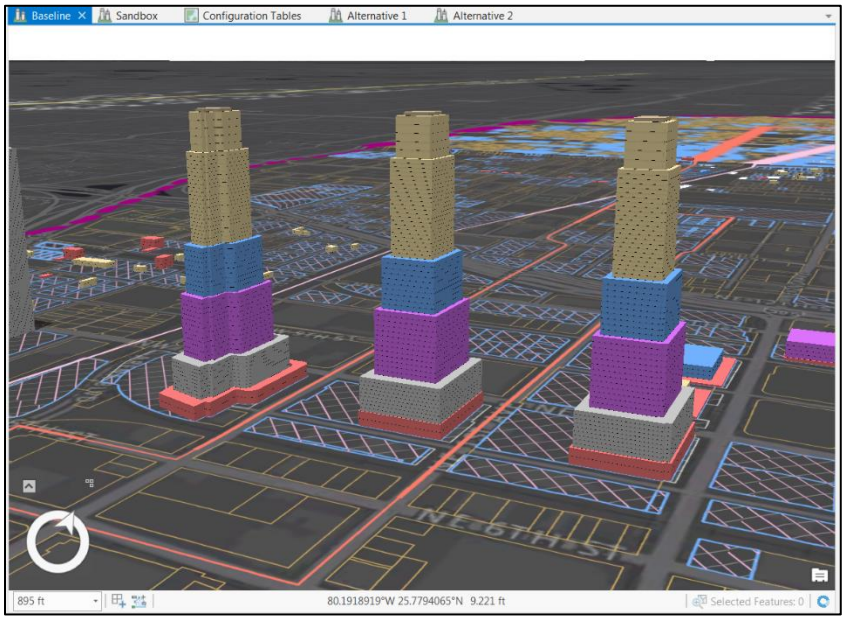
The SMP 2015-2050 study began in 2009 and was completed in 2014 for Miami-Dade County's system of airports (MIA, Kendall-Tamiami, Opa-Locka, Homestead, and Dade-Collier). The focus of the study was on the following:

- Airport roles and positioning to capture existing or anticipated opportunities on the market;
- Identification and assessment of strategies for responding to the needs of MIA from 2015 through 2050;
- Positioning the airport system to serve demand growth, airline service and industry trends, and continued enhancements in customer service; and,
- Balancing capital expenditures for asset expansion and modernization needs.

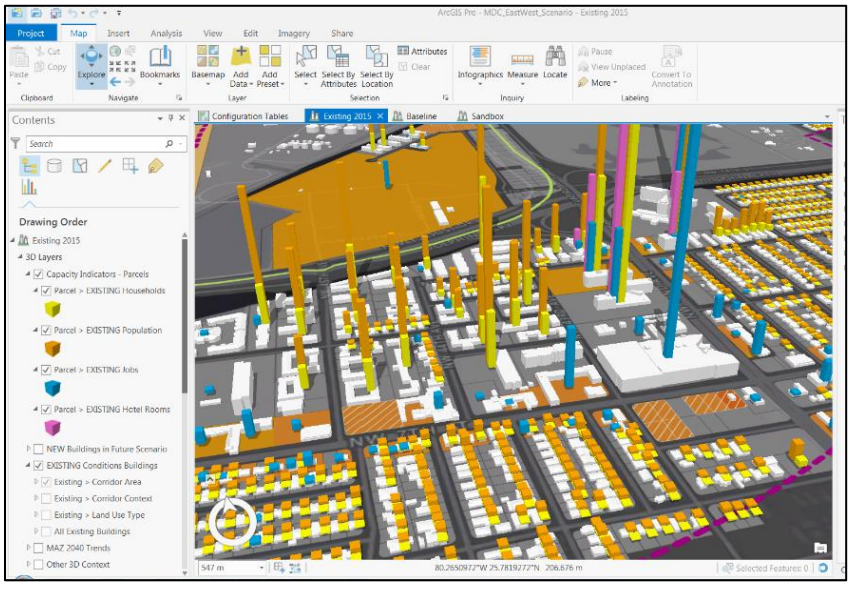
Key planning needs identified in the plan include: identifying revenue generating opportunities, third party/public-private partnership opportunities, fuel prices and the impacts on airline service patterns and market demand, aligning and balancing land use needs with land use compatibility, and preparing for the next capacity 'bottleneck' in Miami-Dade's airport system.

3D Land Use Evaluation Tool

The Miami-Dade DTPW Land Use Analysis Toolbox (Toolbox) was developed by ESRI to be used on the ArcGIS Pro platform. ArcGIS Pro is ESRI's flagship desktop GIS software that supports both 2D and 3D visualization. The Toolbox features a collection of tasks-based tools for managing and manipulating different scenarios based on user-defined inputs. The Toolbox features the ability to change land uses based on various development factors at the parcel level and symbolize the resulting land use change in a 3D environment through defined building prototypes.



The Toolbox also allows for site suitability analysis and detailed scenario management allowing flexibility when working with different alternatives.



The Toolbox will be used to develop land use scenarios that support transit ridership and economic development along the East-West Corridor. The Toolbox will assist in evaluating transit supportive scenarios that fall within existing land use policies as well as scenarios that go beyond existing land use policies. Visual 3D renderings and a database from the Tool will be developed for each scenario.

Miami-Dade County's Code of Ordinances

Chapter 33C of the Miami-Dade County Code of Ordinances provides guidelines for the development of non-Metrorail Fixed-Guideway Rapid Transit Zones (RTZs) within the City of Miami. These guidelines for Rapid Transit Zone areas include permitted uses, Floor Area Ratio, densities, building heights, building frontage, parking requirements, open space, landscaping, pedestrian passage, etc. Some standards are

summarized below. It is important to note that the regulations for RTZs may vary depending on the area.

Permitted Uses: A minimum of two (2) of the following three (3) permitted uses shall be included in Rapid Transit Zone Station developments (Section 33C-8.C.1):

- Business and Civic Uses - Allowed uses include Neighborhood Business Use (BU-1), Limited Business Use (BU-1A), and Special Business Use (BU-2) zoning districts.
- Residential Uses - All residential or mixed-use developments with more than four (4) residential units shall provide a minimum of 12.5 percent (12.5%) of their units as work force housing units. Workforce housing units are for those whose income is between 65 percent (65%) and 140 percent (140%) of the most recent median family income ($59,100 Area Median Income in FY2019) for Miami-Dade County, as reported by the U.S. Department of Housing and Urban Development (HUD).
- Housing for the Elderly

Floor Area Ratio (FAR): The FAR is defined for Community Urban Centers only and requires a minimum FAR of 1.5 (Section 33C-8.C.3).

Maximum Density*:* The maximum densities for developments are defined as follows (Section 33C-8.C.4):

- Metropolitan Urban Centers – 250 residential units per net acre
- Community Urban Centers – 125 residential units per net acre
- Additional densities are allowed for developments meeting Leadership in Energy and Environmental Design (LEED) or a similar organization accredited by the U.S. Green Building Council (USGBC).

Building Heights*:* The maximum building heights for the developments are defined as follows (Section 33C-8.C.5):

- Metropolitan Urban Centers – 25 stories (maximum – 7 stories pedestal, 13 stories tower, 5 stories penthouse)
- Community Urban Centers - 15 stories (maximum – 5 stories pedestal, 8 stories tower, 2 stories penthouse)
  An increased height allowance is provided for developments meeting LEED or a similar organization accredited by the USGBC.

Parking Notwithstanding any provision to the contrary, there shall be no minimum parking requirement within the Rapid Transit Zone (Section 33C-8.C.7).

- Multi-story parking garage structures shall be screened along all frontages (streets and common open spaces), except along a service road or a pedestrian passage, by a liner building containing a minimum depth of 20 feet of habitable space. Parking garages shall have all architectural expression facing public open space consistent and harmonious with that of habitable space.
- Surface parking shall be located a minimum of 20 feet from property lines. Streetwalls and/or habitable space shall be built at the frontage line or at the build-to-line to screen parking from view.

***Open Spaces**:* A minimum of 15 percent (15%) of the lot area shall be reserved for open space (Section 33C-8.C.10).

FDOT's Transit Oriented Development Guidelines

Transit Oriented Developments (TOD) are defined as areas of compact or connected development that are comprised of mixed uses, within the influence area of transit stations and corridors served by a premium transit system. The Transit Core is defined as the area within 0.25 miles of a premium transit station, the area within 0.5 miles of a premium transit station is defined as the Transit Neighborhood, and the area within 1.0 mile is defined as the Transit Supportive Area. Premium transit is defined as commuter rail, light rail, bus rapid transit, or a station that functions as a local bus hub serving a minimum of three fixed local bus routes operating with headways of less than 30 minutes. The following excerpt from the TOD Guidelines introduces planning terms associated with a transit station.

- Premium Transit Station: A transit station serving a premium type or types of transit (e.g., commuter rail, light rail, or rapid transit) or a station that functions as a local bus hub serving a minimum of three fixed local bus routes operating with headways of 21-30 minutes or less.

- TOD Station Area: The area within one-half mile (approximately 500 acres) around a Premium Transit Station, comprised of the Transit Core and Transit Neighborhood. *NOTE: The model regulations presented in this Guidebook focus on this 500-acre area.*

- Transit Core: The area within the first-quarter mile (approximately 125 acres) around a Premium Transit Station.

- Transit Neighborhood: The area within the second-quarter mile (approximately 375 acres) surrounding a Transit Core.

- Transit Supportive Area: Area within a one-mile radius surrounding a Transit Neighborhood and Transit Core.

The document describes three TOD place types: Regional Centers, Community Centers, and Neighborhood Centers. The definitions of each type as provided in *A Framework for TOD* in Florida are provided below.

The station area gross residential density should be between 55 to 75 dwelling units per acre for heavy rail, between 35 to 55 dwelling units per acre for commuter and light rail, and between 20 to 35 dwelling units per acre for Bus Rapid Transit (BRT). In addition, the recommended station area gross employment density should be between 200 and 250 jobs per acre for heavy rail, and between 100 and 200 jobs per acre for commuter and light rail.

Regional Center

Regional Centers are centers of economic and cultural significance, including downtowns and central business districts, which serve a regional travel market and are served by a rich mix of transit types ranging from high speed or commuter rail to BRT to local bus service. Usually emphasizing employment uses, Regional Centers increasingly are being sought out for residential uses in response to changing demographics and housing preferences. Regional Centers are larger in size than Community Centers and

Metropolitan Centers and tend to contain more than one transit station and multiple bus stops. Small block sizes, more lot coverage, higher intensities and densities of development, civic open spaces, and minimal surface parking result in a highly urban development pattern in Regional Centers.

Metropolitan Center

Metropolitan Centers function as sub-regional or local centers of economic and community activity and include urban and town centers served by one or more transit types. Residential densities in Metropolitan Centers are typically lower than residential densities in Regional Centers, but the mix of uses in them is more balances between residential and employment uses. More intense and dense development in Community Centers tends to be concentrated within walking distance of the transit station. The pattern of development in Metropolitan Centers ranges from urban to suburban. Block sizes, lot coverage, and development intensities and densities all tend to be moderate. Parking is typically structured and located close to the transit stations.

Community Center

Community Centers are dominated by residential uses and are served by some type of premium transit. Non-residential uses in them are limited to local-serving retail and services. Residential densities in Community Centers tend to be lower than in Metropolitan Centers and at their highest within walking distance of the transit station. Community Centers are found in older urban areas and newer suburban developments. Open space is usually abundant in them, and parking is mostly in surface lots.

Literature Review Conclusion

The results of the literature review and data gathering task provide a baseline of information, studies, and best practices that will be used in the next steps in the SMART Implementation Plan for the East-West Corridor.

3.0 Charrettes And Stakeholder Coordination

Engagement with the public, stakeholder agencies, and elected officials was a key element of the East-West Land Use Scenario and Visioning Planning process. The central element of the public involvement for the land use scenario and visioning process were the public charrettes. Two series of charrettes were conducted during the study. The first series consisted of two charrettes conducted in-person in January 2018 to obtain public input for the development of land use scenarios for the East-West Corridors. The second series was held virtually in February 2021 with the goal of soliciting input on the preferred land use scenario, brainstorming of the stations and potential development, and access strategies and enhancements. In addition to the public charrettes, a Study Advisory Committee (SAC) and Technical Oversight Committee (TOC) were formed and met periodically throughout the study process.

3.1 Public Charrettes

Two series of charrettes were conducted at key milestones to obtain public input for the land use visioning process. The first series, consisting of two charrettes focused on obtaining public input for the development of land use scenarios. Through "live polling" and breakout sessions, the participants provided input on the existing land use mix and transportation options, how the communities should grow, preferred land uses, and desired multimodal connections between origins and destinations.

The second series, consisting of two charrettes, was conducted to obtain public input for the preliminary preferred land use scenario. These charrettes also included a social media component that allowed the public to join the charrettes via Facebook. The attendees identified first-mile/last-mile connections needed for accessing transit. Overall, the charrette input indicated broad support for premium transit along the East-West Corridor and transit-oriented development (TOD).

The results of the charrettes is summarized in this section. Further details on the charrettes can be found in the *East-West Corridor Charrette Report* in **Appendix B**.

Charrette Series 1 group discussion

Charrette Series 1

Two charrettes were conducted as part of Charrette Series 1. Both charrettes included interactive activities where the community started building their land use vision for the corridor. The charrettes were held at the following dates and locations:

- **Charrette 1**: Saturday, January 20, 2018 from 9:00 AM – 12:00 PM at the Hilton Garden Dolphin Mall
- **Charrette 2**: Wednesday, January 24, 2018 from 6:00 PM – 9:00 PM at the Hilton Miami Airport

With the assistance of facilitators working with workshop participants and support by TPO staff assisting upon request, participants were asked to generate ideas to support land use scenario development. Each charrette event opened with an introductory overview presentation on the interrelationship between land use, urban form and transportation; live polling to gather attendee's opinions regarding their preferences to images displayed; a discussion and presentation on Transit Oriented Development and their characteristics; and Breakout sessions to brainstorm station densities followed by breakout table exercises designed to engage citizens, elected officials and TPO staff in a discussion on the topics of land use and transportation mode choices. The results are summarized in charrette synthesis map in **Figure 3-1**.

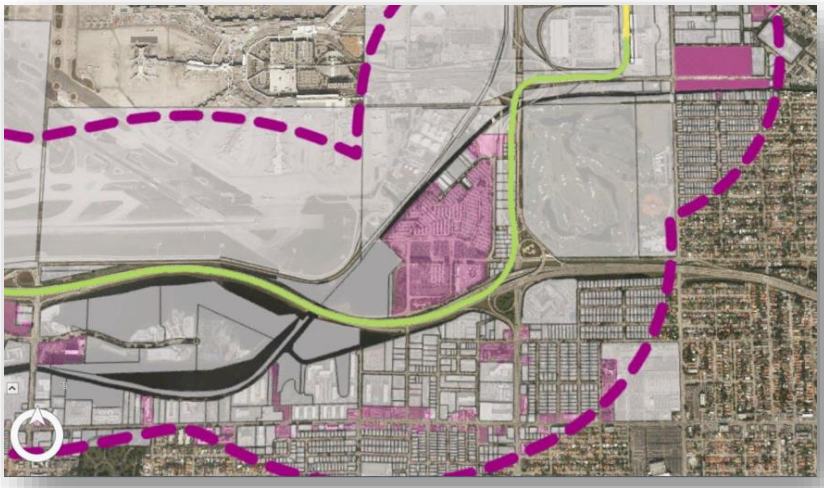
Build the Corridor

During the charrette, attendees were invited to "build the corridor". A COLA exercise was conducted first, where the attendees identified Challenges, Opportunities, Liabilities, and Assets in the area. This was followed by locating potential station locations and areas for different development types and intensities. Additional ideas and thoughts were places on a map using sticky notes. The results of the COLA exercise are summarized on the following pages.

Charrette Series 1 COLA map with sticky notes.

Challenges:

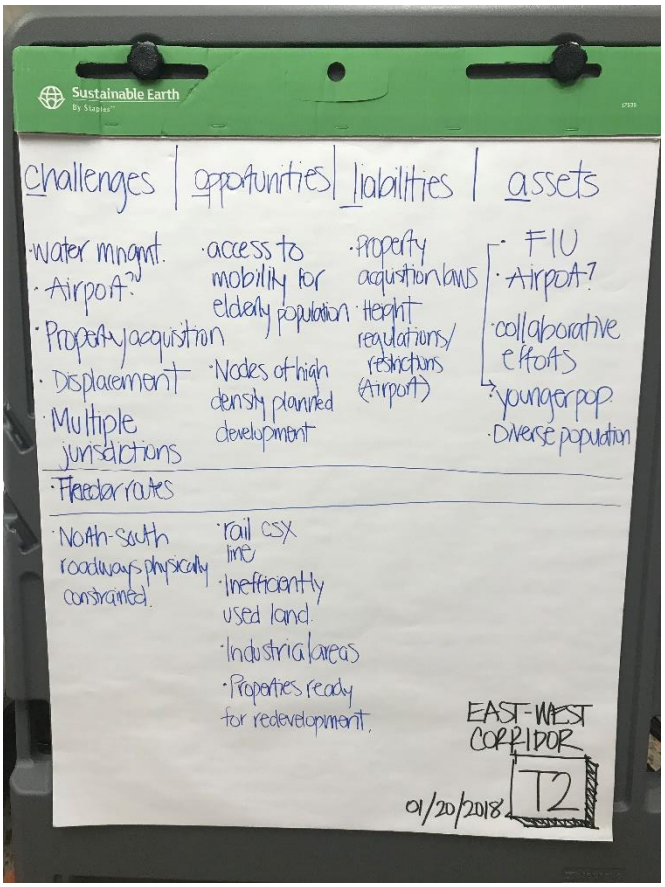
- Water management
- Airport
- Property acquisition
- Displacement
- Multiple jurisdictions
- Feeder routes
- Lack of north-south roadways due to airport
- Underutilized land along the corridor is a challenge but also an opportunity
- Student challenges: grocery shopping
- Residential in South, Industrial and commercial in North, stitch them together
- Demand for industrial is greater than Mixed-Use
- No appeal to walk
- MIC = Hub / not for living
- 836 becomes a barrier for pedestrians
- Unsafe to cross 836
- Most drive everywhere, even to get to everyday-places [supermarket, church, etc...]
- People need to move around in cars to get to everyday-places, thiscreates a lot of traffic, especially on 97th



Charrette Series 1 map.

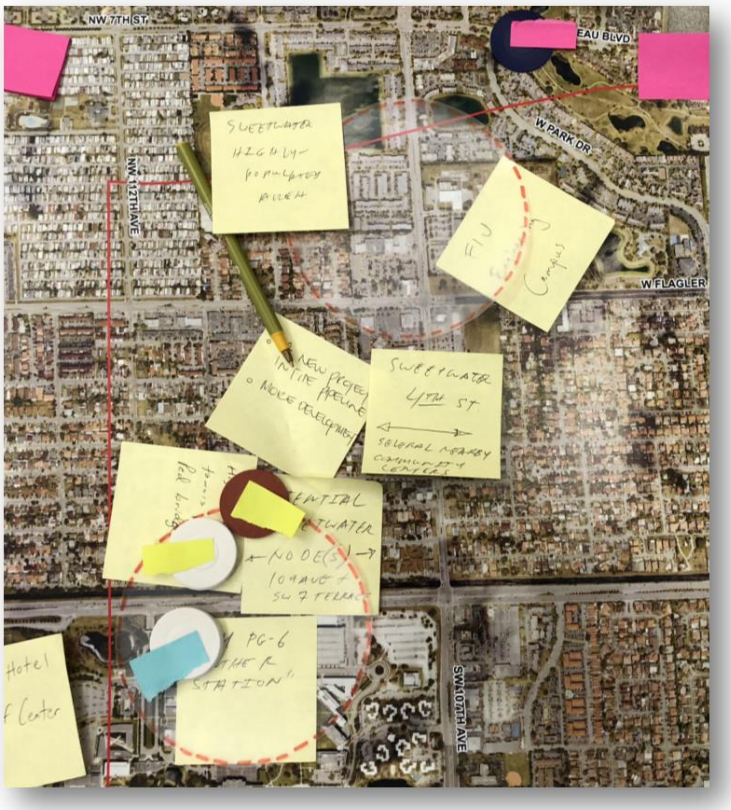
Opportunities:

- Access to mobility for the elderly population
- Nodes of high density planned development
- CSX rail line
- Inefficiently used land
- Industrial areas
- Properties ready for development
- Feeder bus routes
- Future north/south connection on 82nd Ave provides opportunity to create a pedestrian environment where development can happen and benefit from public transit.



Notes from the COLA discussion.

- Underutilized land along the corridor is a challenge but also an opportunity
- Station proposed on NW 7th St and Ludlam Trail. Ludlam trail creates opportunity to draw users from the south.
- Connections to Coral Gables on Douglas Road (NW 37th Ave) There is a feeder potential with trolleys already in place.
- Land acquisition
- Travelers from the airport
- Frequent stops/express train
- Sweetwater / Connection to FIU bridge
- Growing City
- Improve on existing development
- Blue Lagoon business development south of 836 [Dolphin Expressway]
- 57th Avenue being developed, this is a good connector to Coral Gables and UM



Charrette Series 1 COLA map with sticky notes.

- Dolphin Mall Area potential for development
- Possible boulevard with bike and pedestrian trails on Fontainebleau Boulevard, connecting all the way to 87th Avenue Blue Lagoon Boulevard / Promenade

Liabilities:

- Property acquisition
- Height regulations/restriction by Airport
- Feeder routes
- Cost of setup and operations
- Financial and human resources

Assets:

- Florida International University
- Collaborative efforts
- Younger population
- Diverse population
- Feeder routes
- Centers like Ikea, Dolphin Mall and FIU are assets that create opportunities for growth along the corridor
- Malls
- Airport
- Ludlam Trail
- Dolphin Park & Ride
- 836 [Dolphin Expressway] Right of Way
- Take advantage of the existing Rail
- Traffic congestion on 87th Avenue, because of Costco and other industrial like shopping sites
- Linear Park

In addition, several polling questions were asked to participants to identify their feedback of travel within the corridor. Questions included:

How did you get to the charrette today?

11% rode a bike or walk

30% were dropped off by an autombile

58% drove themselves

How do you think rapid transit in the East-West Corridor would affect housing costs?

53% said costs would increase
19% said costs would decrease
28% said there would be no effect

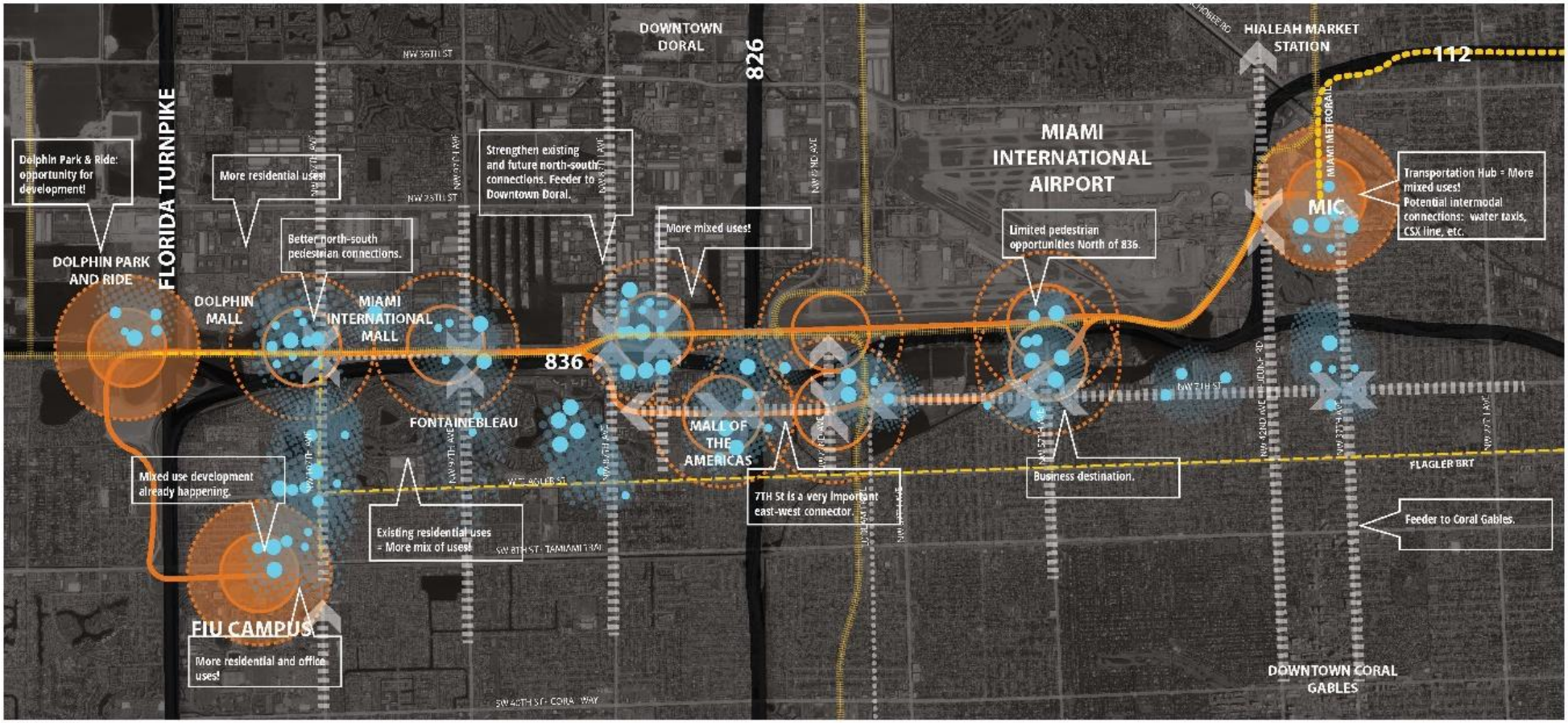
How do you think rapid transit in the East-West Corridor would affect access to shopping and recreation?

100% said it would provide more access

How do you think rapid transit in the East-West Corridor would affect your access to schools?

70% said it would provide more access
30% said it wouldn't have an effect

Figure 3-1 Charrette Synthesis Map



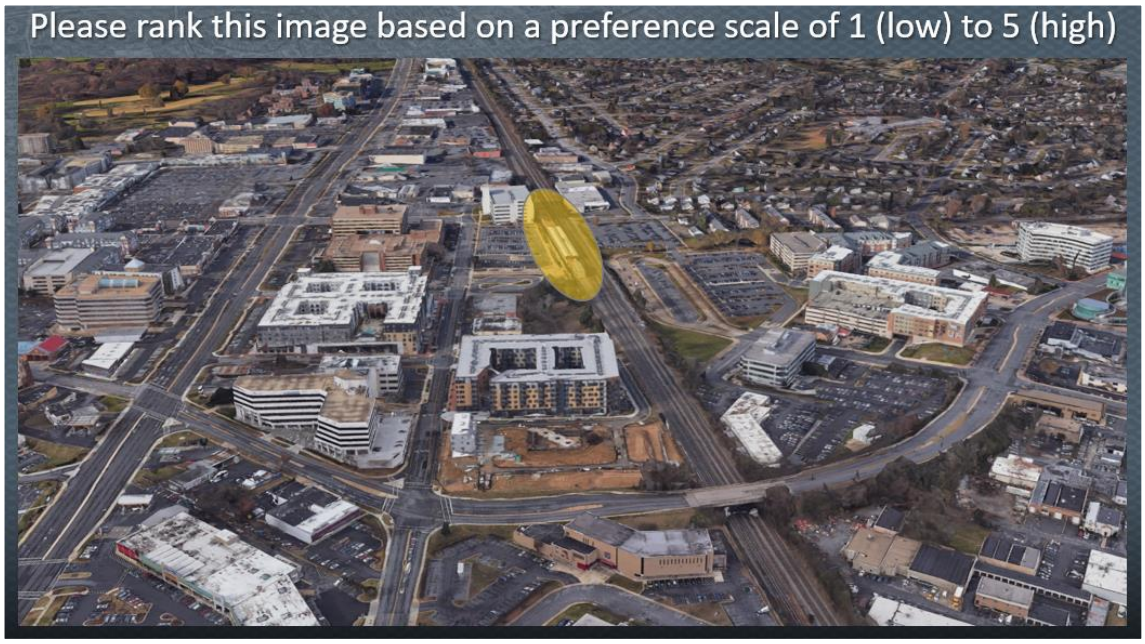
Charrette Series 2

Due to Covid-19 restrictions during this phase of project development, the second charrette series was conducted through a virtual platform using Miro and Zoom. This virtual platform facilitated an interactive PowerPoint presentation where the charrette participants could vote when prompted as well as enter comments and questions into a chat box for the project team. The PowerPoint and the results of the polling are included in **Appendix B**.

Participant feedback tools during the PowerPoint.

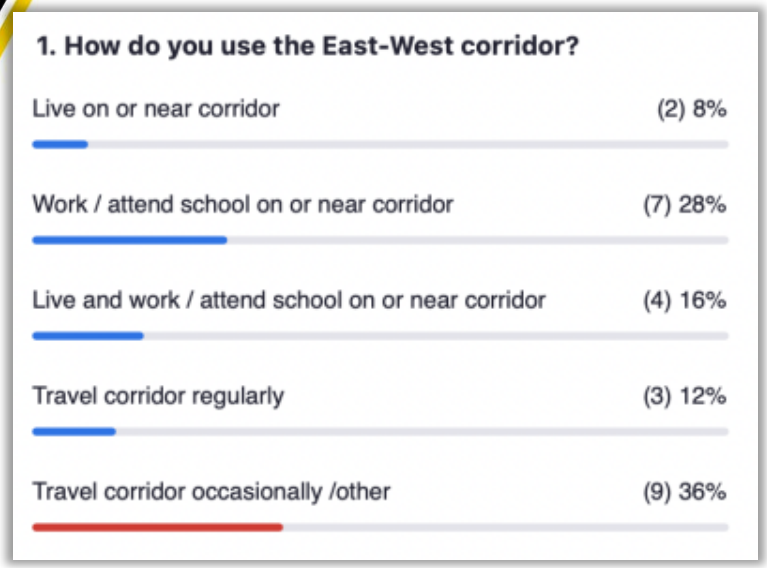
The Charrette Series 2 was held on the evenings of February 11, 2021 and February 12, 2021. The charrettes included a total of 64 participants (36 on the first night and 28 on the second night). During the Charrette, the TPO requested community feedback on station area population and employment growth estimates for the development of a preferred land use scenario. The charrette participants were asked to consider the following:

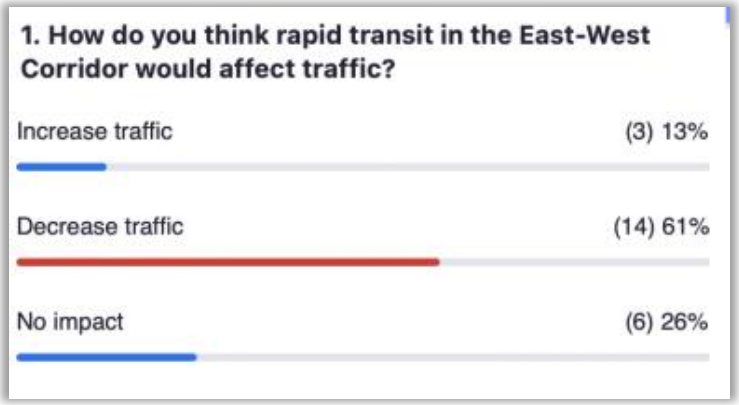
- Review and comment on the station area-based preliminary population and employment growth associated with the East-West Corridor SMART Plan.
- Review and comment on the mix of population and employment growth associated with the East-West Corridor SMART Plan.
- Is the projected SMART Plan growth by station area consistent with your community's vision?

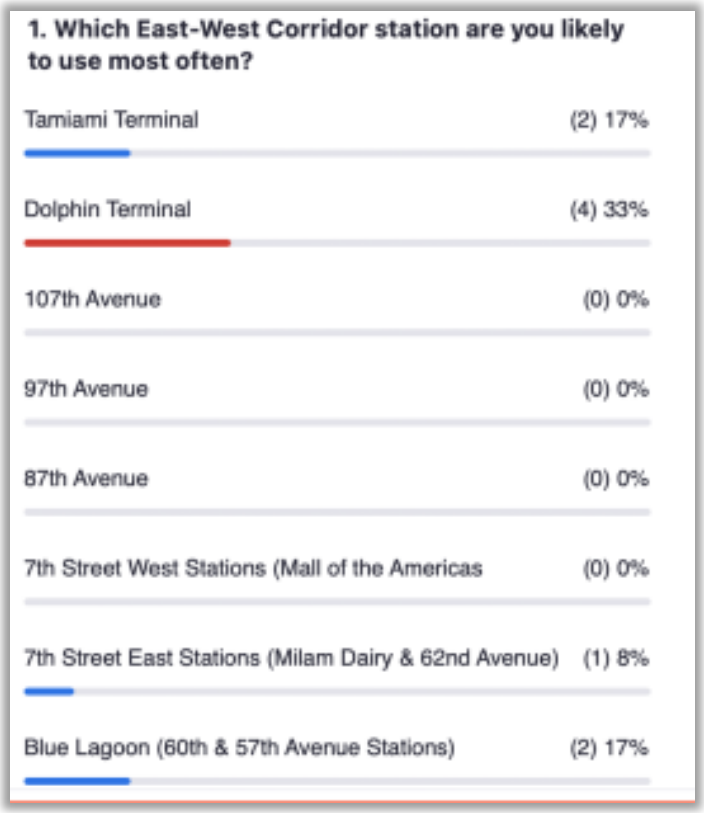


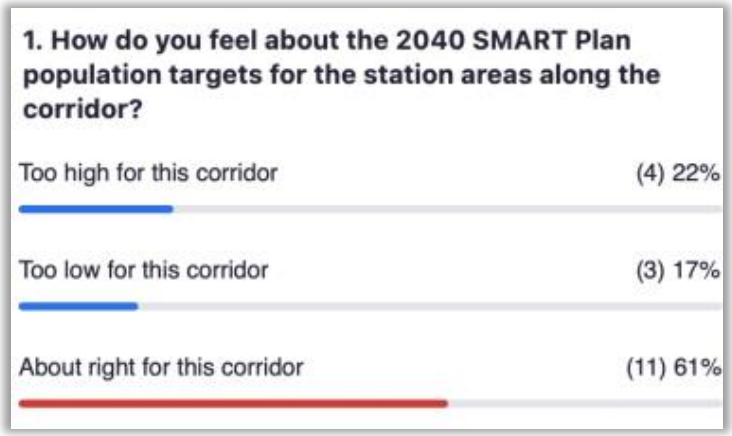
Example visual preference survey from the presentation.

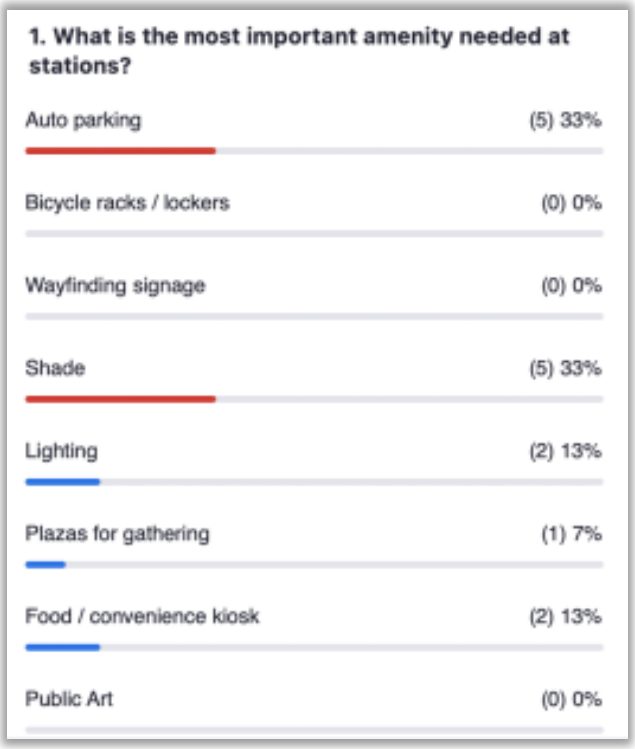
Figure 3-2 summarizes the comments received. The following displays the result of the interactive questions:

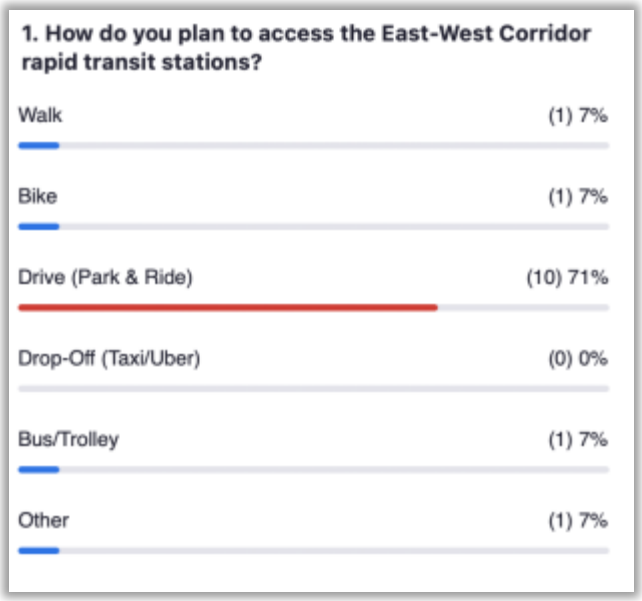









1. What is the most important amenity needed at stations?
Auto parking (5) 33%
Bicycle racks / lockers (0) 0%
Wayfinding signage (0) 0%
Shade (5) 33%
Lighting (2) 13%
Plazas for gathering (1) 7%
Food / convenience kiosk (2) 13%
Public Art (0) 0%


1. How do you plan to access the East-West Corridor rapid transit stations?
Walk (1) 7%
Bike (1) 7%
Drive (Park & Ride) (10) 71%
Drop-Off (Taxi/Uber) (0) 0%
Bus/Trolley (1) 7%
Other (1) 7%

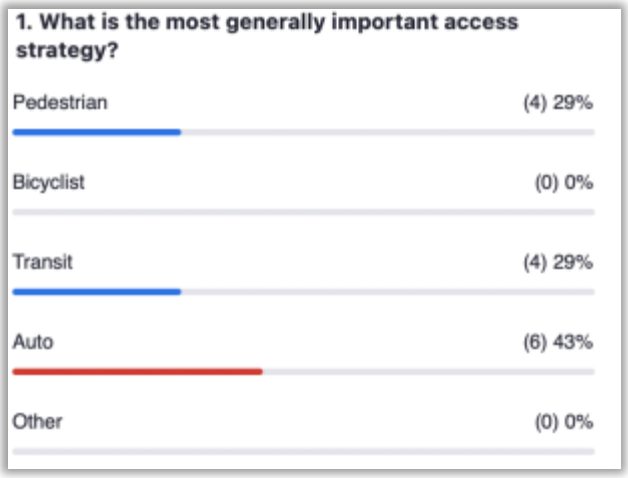

1. What is the most generally important access strategy?
Pedestrian (4) 29%
Bicyclist (0) 0%
Transit (4) 29%
Auto (6) 43%
Other (0) 0%

Figure 3-2 Charrette Series 2 Input Summary

3.2 Stakeholder Coordination

In addition to the public charrettes, the project team engaged stakeholders through a series of meetings, including a Study Advisory Committee (SAC), a Technical Oversight Committee (TOC), and meetings with elected officials and key local agency staff throughout the study process.

Study Advisory Committee Meetings

The Study Advisory Committee (SAC) provided technical and policy guidance on project issues. Five SAC meetings were held during the development of the land use and visioning plan from November 2017 through April 2021 on the following dates:

- SAC Meeting #1: November 8, 2017
- SAC Meeting #2: December 13, 2017
- SAC Meeting #3: June 19, 2018
- SAC Meeting #4: December 15, 2020
- SAC Meeting #5: April 6, 2021

These meetings were used to obtain input from stakeholder agencies, announce charrettes, encourage public participation, and review interim and final project deliverables. The SAC was comprised of representatives from the following agencies:

- Florida Department of Transportation District Six
- Florida Turnpike Enterprise
- Miami-Dade County Department of Transportation and Public Works (DTPW)
- Miami-Dade County Regulatory and Economic Resources (RER)
- Miami-Dade Expressway Authority (MDX)
- Miami-Dade Citizens' Independent Transportation Trust (CITT)
- Miami-Dade Citizens' Transportation Advisory Committee (CTAC)
- Miami International Airport
- South Florida Regional Planning Council (SFRPC)
- South Florida Regional Transportation Authority (SFRTA)
- Municipalities along the corridors including Doral, Miami, Miami Springs, and Sweetwater
- Florida International University (FIU)
- Major land developers including Dolphin Mall, International Mall, Mall of the Americas, and Taubman Company

The **first SAC meeting** was held at the Atkins Miami office on November 8, 2017. The purpose of the meeting was to provide the SAC members an overview of the Preferred Land Use Scenario and Visioning Plan for East-West Corridor, schedule, and discuss their role. Additionally, the SAC was briefed of efforts by the Department of Transportation and Public Works (DTPW) on the East-West Corridor Environmental Study PD&E and FTA New Starts Guidance and Criteria. SAC members were given an overview of the corridor land use data and a Corridor Brainstorming Session was conducted. The SAC members were informed of the upcoming charrette meetings.

The **second SAC meeting** was held at the Atkins Miami office on December 13, 2017. The purpose of the meeting was to provide the SAC members with the status of the Land Use Visioning process and other studies by partner agencies, an update on the January 2018 charrettes, and an overview of the preliminary

suitability analysis and land use scenarios. The SAC members were requested to provide input for the draft scenarios.

The **third SAC meeting** was held at the Atkins Miami office on June 19, 2018. The purpose of the meeting was to brief the SAC members of activities since the last SAC meeting, summarize and recap the results from the previous charrettes, and discuss the land use alternative scenarios and Preliminary Land Use Scenario for the East-West Corridor.

The **fourth SAC meeting** was held virtually on December 15, 2020. The SAC received the results of the land use scenarios analysis, including the Preliminary Land Use Scenario was presented, land use policy recommendations, and an update of the concurrent Economic Mobility and Accessibility activities.

The **fifth SAC meeting** was held virtually on April 6, 2021. The purpose of this meeting was to present the preferred land use scenario, discuss land use policy changes, and provided an update of the concurrent Economic Mobility and Accessibility activities.

Technical Oversight Committee Meeting

A Technical Oversight Committee (TOC) was formed by the TPO comprising of consultant staff from the SMART Plan Land Use Visioning Plan project teams, Miami-Dade TPO staff, Miami-Dade County RER, FDOT District Six, and Miami-Dade DTPW. The TOC was established to plan key study components such as charrettes and ensure consistency among different corridor studies. Six TOC meetings were held between September 2017 and June 2018.

4.0 Land Use Scenario Development

The land use scenarios were developed in two phases. The first three land use scenarios were developed in the Spring of 2018 after receiving input from the first public charette series. These first three scenarios were developed using the initial project limits of FIU.

The second phase occured after of the DTPW PD&E report was completed and the LPA BRT alternative was adopted. At this time, the project limits were shifted to no longer include FIU but to extend west to the Tamiami Terminal. Based on the LPA and the revised project limits, a fourth scenario was developed, analyzed, and refined.

Further details about each of the scenarios and the development of the scenarios is included in this section.

4.1 Scenario Development Framework

This section outlines the types of data and evaluation methods used during scenario development.

Data and Forecasting

The framework for the land use scenario assessment was based on socioeconomic data, forecast units, and horizon years. Population and employment were used as the primary socioeconomic variables to quantify the land use scenarios. While Station Areas were used to report population and employment data at the macro level, much smaller Micro-Analysis Zones (MAZ) were used to input socioeconomic data to the travel demand model for evaluating alternative land use scenarios. The Southeast Florida Regional Planning Model (SERPM) Version 7, which is the travel demand model used by the Miami-Dade TPO for developing 2040 Long Range Transportation Plan (LRTP), has established 2040 as the horizon year. Therefore, all land use scenarios were developed and evaluated for year 2040.

The resources used for scenario development included:

- 2040 Long-Range Transportation Plan Southeast Model data;
- Municipal Land use and Zoning Regulations;
- Stakeholder input gathered at Corridor Charettes; and,
- Determination of land use parcel suitability.

2040 Trend Scenario

The 2040 Trend forecasts were developed as a baseline for comparison with the three alternative land use scenarios. Socioeconomic data for the 2040 Trend was derived from the Southeast Regional Planning Model (SERPM) used as part of the adopted 2040 Miami-Dade LRTP. The population and employment forecasts included in the 2040 Trend are based on natural growth expected to occur without additional transit investments. This can be though of like a No-Build Alternative. 2040 Trend data was ascertained for the various station areas included in each of the alternative land use scenarios. While each alternative had different station areas, general trend population growth on the East-West Corridor for 2040 was 15-18% higher than in 2010. General trend employment growth on the East-West Corridor for 2040 was 36-40% higher than in 2010.

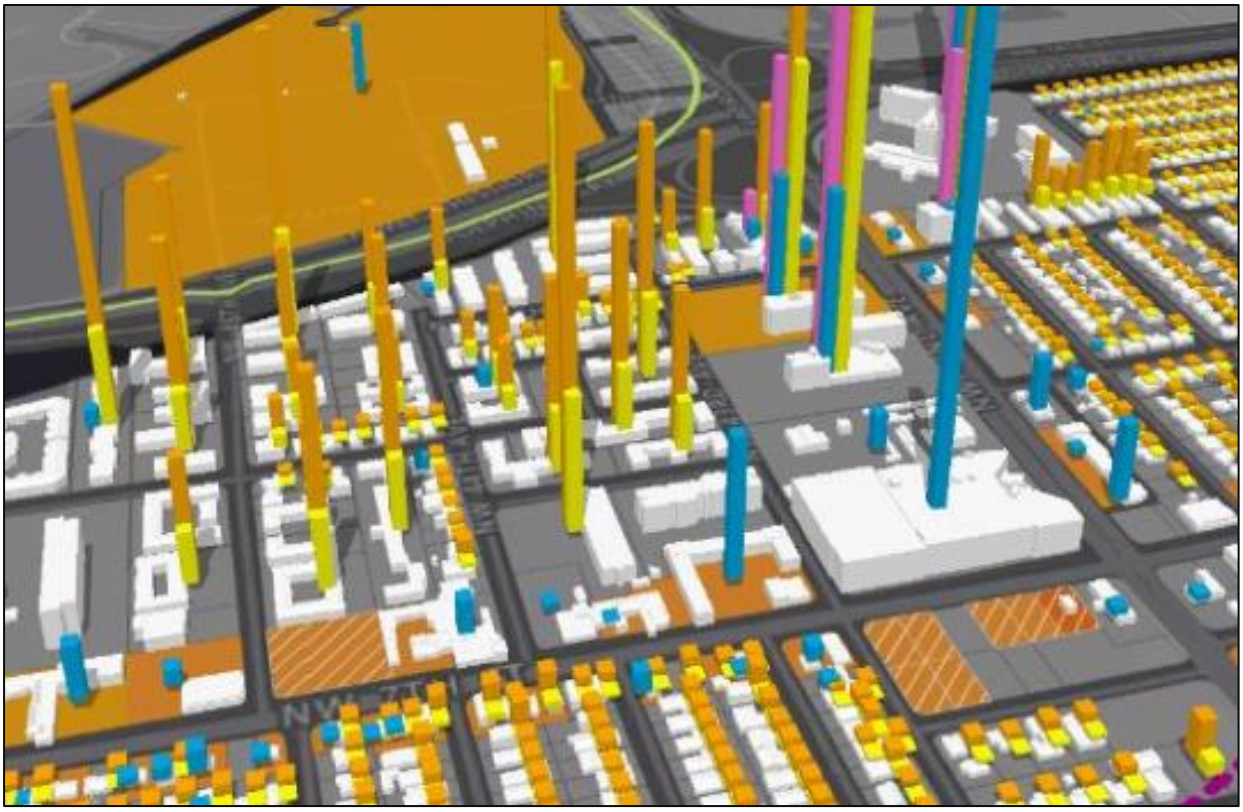
Alternative Land Use Scenarios

A key component of the study was the development of multiple land use / development scenarios. Three distinct land use scenarios were developed in 2018, with varying development projections and potential station locations. Each scenario focused on different areas of the corridor, and were generally consistent with the transportation model alternatives that were being evaluated in the PD&E study. Furthermore, development intensities varied between the scenarios, such that the effect of land use on potential transit ridership could be assessed. Growth under each scenario was concentrated within ½ mile of potential stations, with development focused in areas that may be ripe for additional densification and redevelopment. The three scenarios are described below.

- Scenario 1: Northern Emphasis - Moderate Growth focused West of SR 826
- Scenario 2: Southern Emphasis – Moderate Growth spread over the entire Corridor
- Scenario 3: Quadrant Emphasis – Growth spread over the entire Corridor

Local land use plans for cities within the corridor (i.e., Doral, Miami, Miami Springs, and Sweetwater plus the Miami-Dade plan for unincorporated areas) provide more growth in the Corridor and station areas than in the existing, adopted 2040 land uses, but at differing levels. The methods and rules for increasing the densities in the Corridor and station areas are explained in detail in the document in **Appendix C**.

One of the requirements for this analysis is that, while the corridor and station areas would be made denser, the control totals, in terms of total households, population, and employment for Miami-Dade County in 2040, were held constant. So, for all scenarios, the total of each of these variables across the county is the same. The changes in the distribution of population and employment were accomplished by adjusting only the distribution of the growth between 2010 and 2040. The population and employment data for 2010 were not changed.



4.2 Phase 1 Scenario Development

The first phase of scenario development was based on the initial project limits to FIU. Phase 1 consists of Scenarios 1 through 3. These scenarios were developed in the Spring of 2018 after receiving input from the first two SAC meetings and the first public charrette series. They were then refined through the summer of 2018 after additional analysis and another SAC meeting.

Stations and Station Areas

There were a total of 14 station locations evaluated during Phase 1. The stations included in each scenario varied based on alignment and scenario emphasis (see **Figure 4-1**). The station area is defined as a half mile buffer around the station. The station typology and hierarchy assigned was based on preliminary analysis using station typologies defined in the *Miami-Dade County CDMP.*

Table 4-1 Phase 1 Stations

Locations	Proposed Stations								
	Scenario 1 Northern Emphasis	Station Typology & Hierarchy		Scenario 2 Southern Emphasis	Station Typology & Hierarchy		Scenario 3 Quadrant Emphasis	Station Typology & Hierarchy	
Miami Intermodal Center	✓	Regional	1	✓	Regional	1	✓	Regional	1
LeJeune Road				✓	Community	3	✓	Community	3
57th Avenue @ Blue Lagoon				✓	Community	3			
60th Avenue @ Blue Lagoon									
7th Street @ 62nd Avenue				✓	Community	3	✓	Community	3
72nd Avenue @ SR 836				✓	Metropolitan	2			
7th Street @ Milam Dairy							✓	Metropolitan	2
The Wedge									
Mall of the Americas				✓	Community	3			
84th Avenue	✓	Metropolitan	2						
87th Avenue				✓	Metropolitan	2	✓	Metropolitan	2
97th Avenue	✓	Community	3	✓	Community	3	✓	Community	3
107th Avenue	✓	Metropolitan	2	✓	Metropolitan	2	✓	Metropolitan	2
Dolphin Terminal	✓	Metropolitan	2	✓	Metropolitan	2	✓	Metropolitan	2
Tamiami Terminal									
Panther Station				✓	Metropolitan	2	✓	Metropolitan	2

Scenario 1 – Northern Emphasis

This scenario focused development on the north side of SR 836, and was concentrated around 5 stations. In this scenario, the transit line was assumed to parallel 12th Street, with three new stations at 107th, 97th, and 84th Avenues. The existing Dolphin Terminal and Miami Intermodal Center (MIC) were also included. Additional population growth beyond the 2040 Trend was assumed to be 39% , with an additional 31% growth in employment over the 2040 Trend. The growth was concentrated just in the 5 station areas, with medium intensities at each. The 107th Avenue station area was assigned the largest total population and employment growth, with the largest percentage population growth around the MIC and the largest employment growth around the Dolphin Terminal. This scenario was designed to be consistent with the potential commuter rail alternative in the PD&E study.

Characteristics of this Scenario include:

- Population and employment growth is concentrated west of SR 826;
- The largest population growth is projected at the 107th Avenue station;
- The largest employment growth is projected in the vicinity of the 107th Avenue station;
- The greatest percentage of population growth is projected at the Miami Intermodal Center; and,
- The greatest percentage of employment growth is projected at the Dolphin Terminal.

Stations:

- Miami Intermodal Center (MIC): Located at Miami International Airport
  - Connections to Metro Rail, Tri-Rail and Greyhound
- Mall of the Americas: Located on 84th Avenue
- 97th Avenue: Located in the vicinity of the Miami International Mall and the Fontainebleau area
- 107th Avenue: Located in the vicinity of the Dolphin Mall and the Miami International Mall
- Dolphin Station: Located at the Dolphin Terminal Park-and-Ride lot

Development Opportunity Areas within the Scenario:

- Miami Intermodal Center/Palmer Lake Area
- Parcel southeast of Dolphin Mall
- Parcels adjacent to Dolphin Terminal Park-and-Ride facility

The projected population and employment for the station areas in Scenario 1 are shown in **Tables 4-2** and **4-3** below.

Table 4-2 Scenario 1 Population

Station	Base 2010	Trend 2040	TOD 2040	Trend TOD Growth	Trend TOD % Growth
Miami Intermodal Center	4,136	4,219	8,500	4,281	101
Mall of the Americas	9,321	9,683	11,000	1,317	14
97th Avenue	17,444	20,347	25,000	4,653	23
107th Avenue	8,138	11,347	19,000	7,653	67
Dolphin Terminal	4,601	4,713	6,500	1,787	38
TOTAL	**43,640**	**50,309**	**70,000**	**19,691**	**39**

Table 4-3 Scenario 1 Employment

Station	Base 2010	Trend 2040	TOD 2040	Trend TOD Growth	Trend TOD % Growth
Miami Intermodal Center	22,846	28,152	35,000	6,848	24
Mall of the Americas	8,696	10,535	15,000	4,465	42
97th Avenue	9,347	11,260	14,229	2,969	26
107th Avenue	9,600	17,333	22,000	4,667	27
Dolphin Terminal	885	2,517	5,000	2,483	99
TOTAL	**51,374**	**69,797**	**91,229**	**21,432**	**31**

Overall, Scenario 1 would have five total stations with a 2040 scenario projected population increase of about 20,000 over 2040 Trend and an approximate 21,000 employment increase compared to 2040 Trend.

Figure 4-1 Scenario 1 - Northern Emphasis

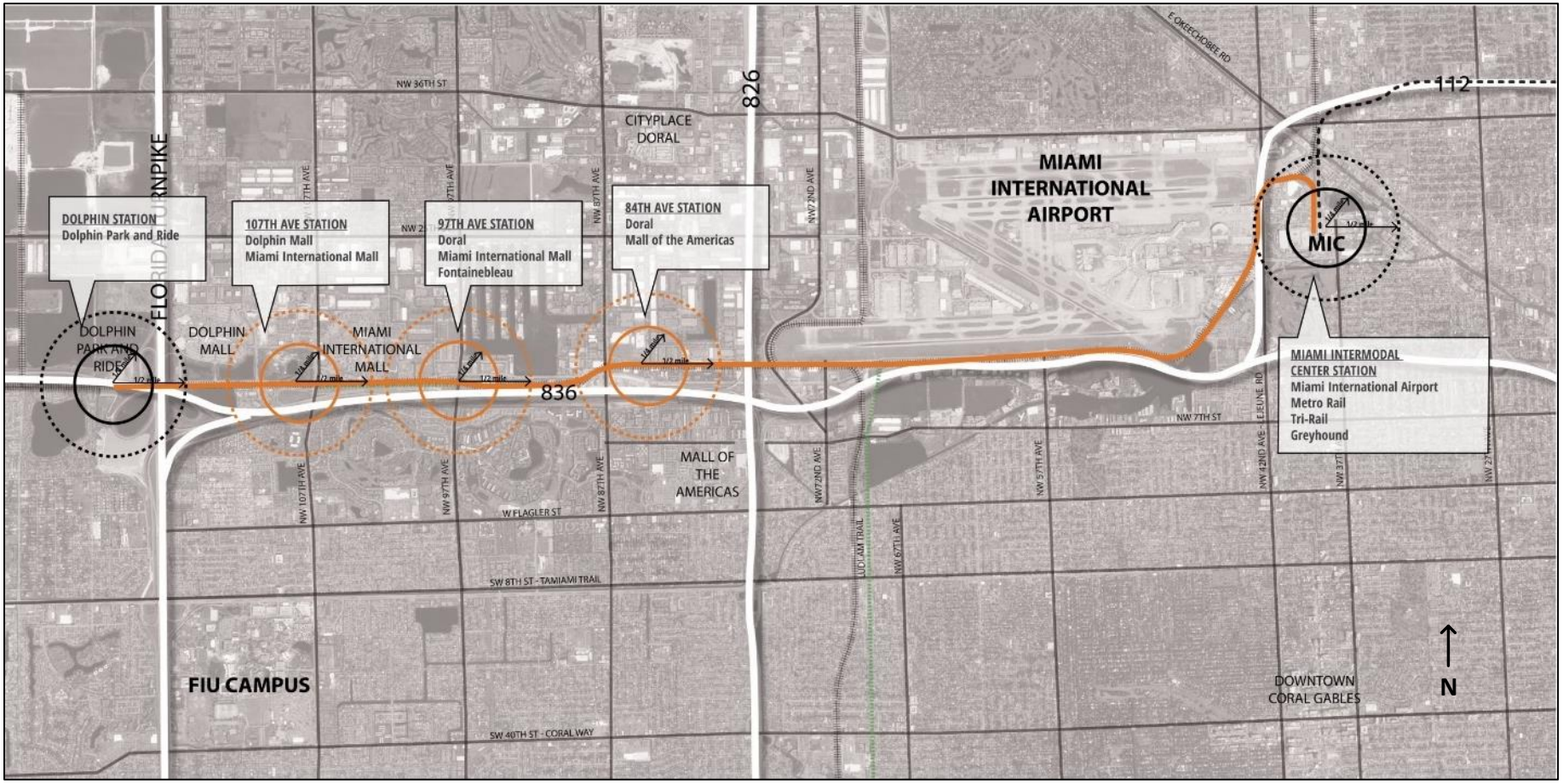
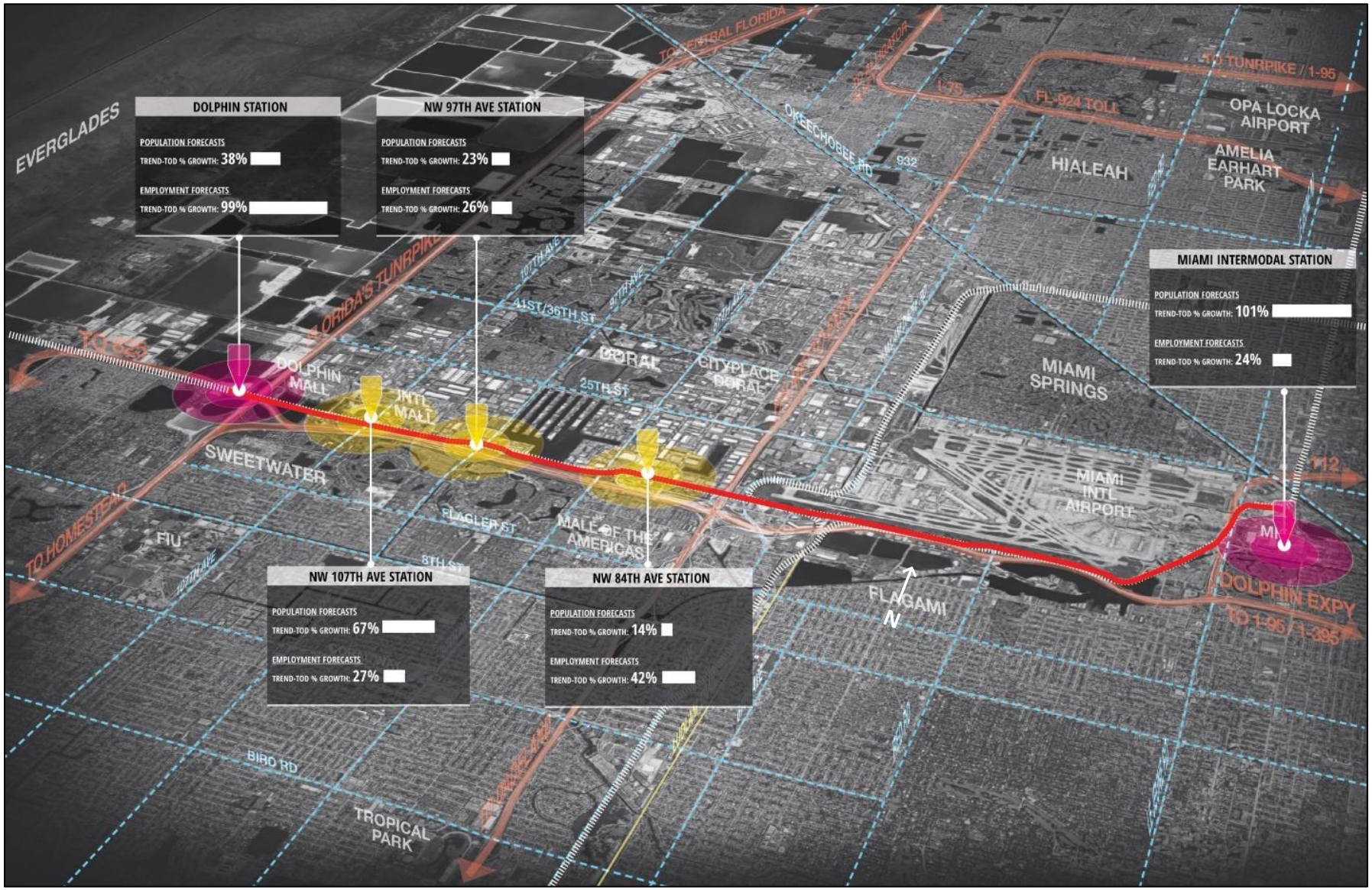


Figure 4-2 Scenario 1 Forecasts



Scenario 2 – Southern Emphasis

This scenario assumed development growth on the south side of SR 836, concentrated around 11 stations. In this scenario, the transit line was assumed to be along SR 836 with deviations to Florida International University (FIU) and through the Blue Lagoon area. The existing Dolphin Terminal, Panther Station, and MIC were included, along with 8 new stations. Population growth beyond the 2040 Trend was assumed to be 22% , with an additional 20% growth in employment over the 2040 Trend. Total corridor growth was similar to Scenario 1, but spread at all 11 station areas, with lower intensities at each. The Mall of the Americas and 107th Avenue station areas were assigned the largest population growth, with the largest employment growth around the 107th Avenue and MIC station areas. This scenario was designed to be consistent with the potential bus rapid transit (BRT) alternative in the PD&E study.

Characteristics of this Scenario include:

- Overall total growth in population and employment are like Scenario 1, however, percentage increases are less;
- Population and employment growth is allocated evenly throughout the entire corridor;
- The largest population growth is projected at the 87th Avenue and 107th Avenue stations; and,
- The largest employment growth is projected at the 107th Avenue and Miami Intermodal Center stations.

Stations:

- Miami Intermodal Center: Located at Miami International Airport
  - Connections to Metro Rail, Tri-Rail and Greyhound
- 44th Avenue
- 57th Avenue at Blue Lagoon: Located at Blue Lagoon development at 57th Avenue (east)
- 60th Avenue at Blue Lagoon: Located at Blue Lagoon development at 60th Avenue (west)
- 72nd Avenue at SR 836: Connection to Ludlam Trail
- 87th Avenue: Located in the Fontainebleau area
- 97th Avenue: Located in the vicinity of the Miami International Mall and the Fontainebleau area
- 107th Avenue: Located in the vicinity of the Dolphin Mall and the Miami International Mall
- Dolphin Terminal: Located at the Dolphin Park-and-Ride lot
- Panther Station: Located in the City of Sweetwater on the campus of Florida International University

Development Opportunity Areas within the Scenario:

- Southeast quadrant of the SR 836 and SR 826 Interchange

The projected population and employment for the station areas in Scenario 2 are shown in **Tables 4-4** and **4-5**.

Table 4-4 Scenario 2 Population

Station	Base 2010	Trend 2040	TOD 2040	Trend TOD Growth	Trend TOD % Growth
Miami Intermodal Center	3,705	3,733	5,000	1,267	34
44th Avenue	4,862	7,713	8,010	297	4
57th Avenue at Blue Lagoon (east)	7,893	9,619	11,000	1,381	14
60th Avenue Blue Lagoon (west)	3,649	4,181	5,503	1,322	32
72nd Avenue at SR 836	3,811	3,985	6,000	2,015	51
79th Avenue	5,796	5,958	8,000	2,042	34
87th Avenue	21,058	24,175	28,000	3,825	16
97th Avenue	7,785	8,231	11,000	2,769	34
107th Avenue	8,138	11,347	15,000	3,653	32
Dolphin Terminal	4,601	4,713	5,500	787	17
FIU/Panther Station	14,697	16,673	19,343	2,670	16
TOTAL	**85,995**	**100,328**	**122,356**	**22,028**	**22**

Table 4-5 Scenario 2 Employment

Station	Base 2010	Trend 2040	TOD 2040	Trend TOD Growth	Trend TOD % Growth
Miami Intermodal Center	22,831	28,134	32,000	3,866	114
44th Avenue	2,250	3,791	4,162	371	10
57th Avenue at Blue Lagoon (east)	4,723	6,073	7,50	1,427	23
60th Avenue at Blue Lagoon (west)	7,668	9,370	11,500	2,130	23
72nd Avenue at SR 836	2,942	3,756	5,000	1,244	33
79th Avenue	1,545	4,578	6,000	1,422	31
87th Avenue	3,918	4,916	6,500	1,584	32
97th Avenue	9,041	11,992	13,729	1,737	14
107th Avenue	9,600	17,333	21,000	3,667	21
Dolphin Terminal	885	2,517	4,000	1,483	59
FIU/Panther Station	8,145	10,713	12,578	1,865	17
TOTAL	**73,548**	**103,173**	**123,969**	**20,796**	**20**

Overall, Scenario 2 would have 11 total stations with a 2040 projected population increase of about 22,000 over 2040 Trend and an approximate 21,000 employment increase compared to 2040 Trend.

Figure 4-3 Scenario 2 - Southern Emphasis

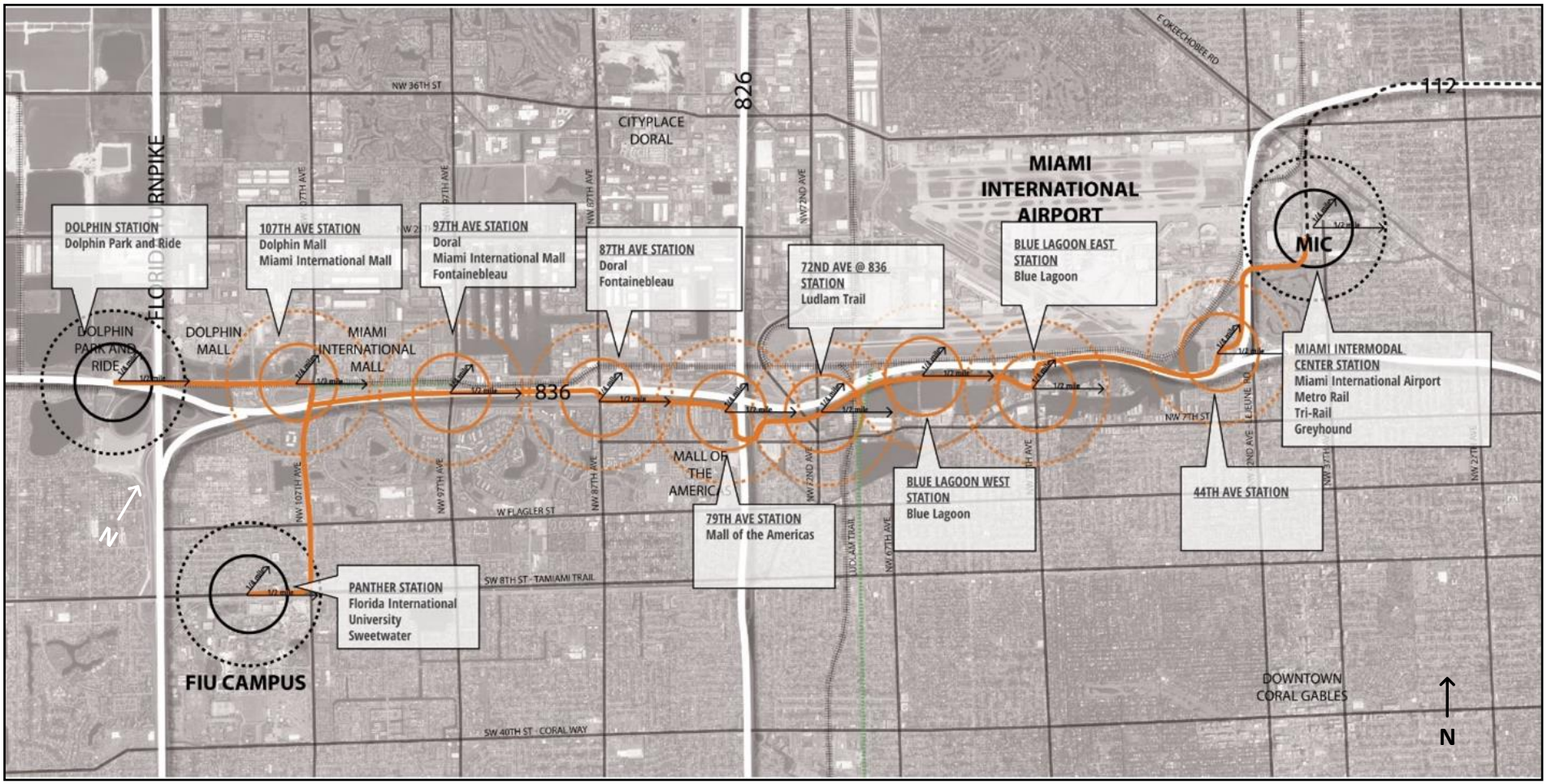
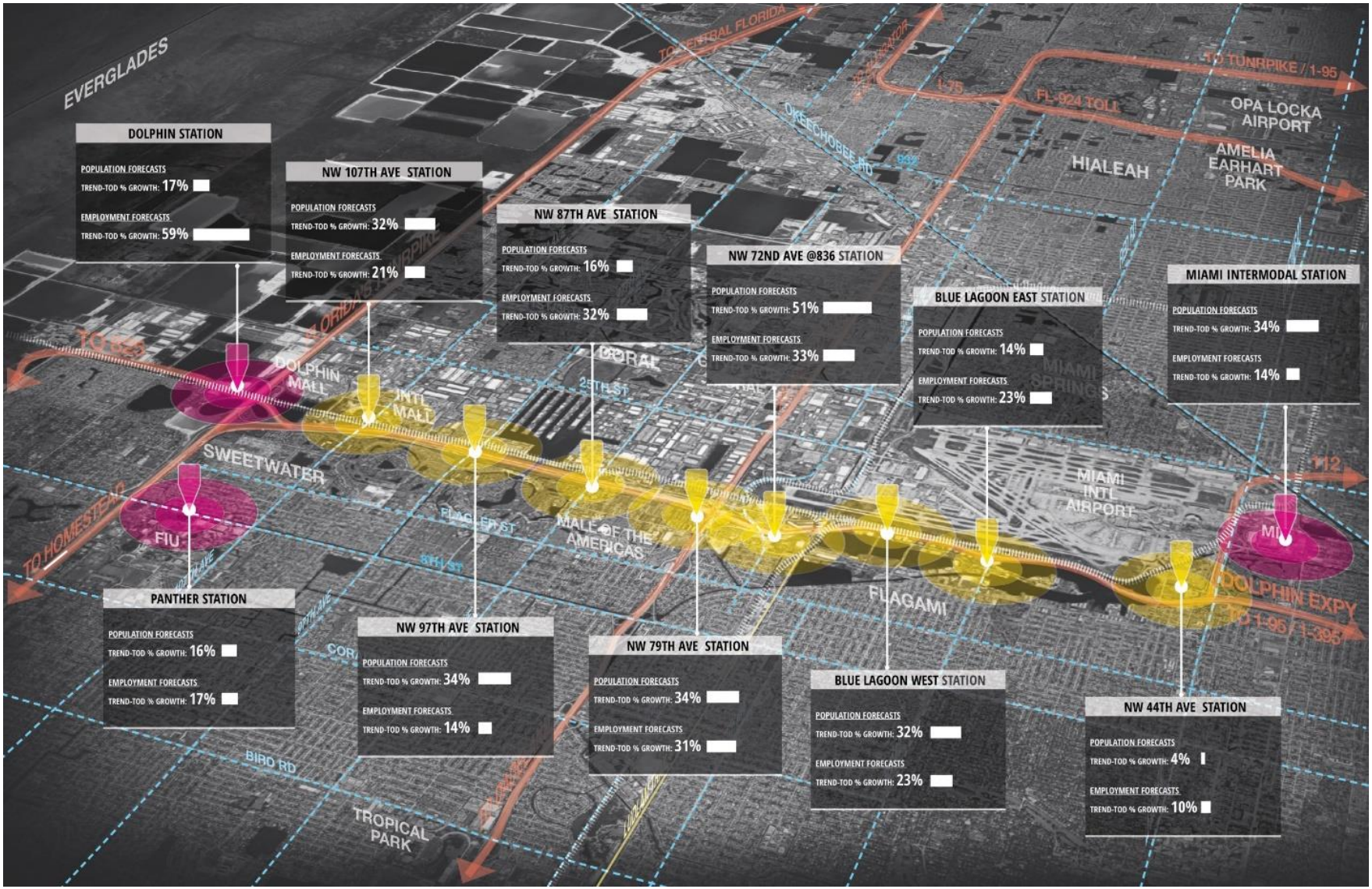


Figure 4-4 Scenario 2 Forecasts



Scenario 3 – Quadrant Emphasis

This scenario includes growth in all four quadrants of the corridor: north and south of SR 836, as well as east and west of SR 826 / Palmetto Expressway. The scenario includes 9 stations, extending from FIU to the MIC, with robust potential development growth at most. Six new stations are included along with the existing Dolphin Terminal, Panther Station, and MIC. In this scenario, the transit line was assumed to follow the Homestead Extension of Florida's Turnpike (HEFT) from FIU to the Dolphin Terminal. From there, the line would extend east along SR 836, through the Blue Lagoon area, and terminating at the MIC. The scenario was designed to complement the heavy rail alternative in the PD&E study, and as such, had the highest growth. Total growth was forecasts to be higher than Scenarios 1 and 2 combined, with population growth beyond the 2040 Trend assumed to be 53% , and employment growth at 47%. The 107th Avenue station area was assigned the largest total population growth, with the MIC station area having the largest total employment growth. The largest percentage population growth was in the 72nd Avenue station area, with the largest employment growth around the Dolphin Terminal.

Characteristics of this Scenario include:

- Total population and employment growth is greater than Scenarios 1 and 2 combined;
- The largest population growth is projected adjacent to the 107th Avenue station;
- The largest employment growth is projected at the Miami Intermodal Center;
- The greatest percentage population growth is projected at the 72nd Avenue station; and,
- The greatest percentage employment growth are projected for the Dolphin Terminal and 72nd Avenue stations.

Stations:

- Miami Intermodal Center: Located at Miami International Airport
  - Connections to Metro Rail, Tri-Rail and Greyhound
- Blue Lagoon: Located at Blue Lagoon development
- 72nd Avenue at 7th Street: Connection to Ludlam Trail
- 87th Avenue: Located in the City of Doral at the Fontainebleau Hotel
- 97th Avenue: Located in the vicinity of the Miami International Mall and the Fontainebleau area
- 107th Avenue: Located in the vicinity of the Dolphin Mall and the Miami International Mall
- Dolphin Terminal: Located at the Dolphin Terminal Park-and-Ride lot
- Panther Station: Located in the City of Sweetwater on the campus of Florida International University

Development Opportunity Areas within the Scenario:

- Southeast quadrant of the SR 836 and SR 826 Interchange
- East of LeJeune Road south of SR 836

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The projected population and employment for the station areas in Scenario 3 are shown in **Tables 4-6** and **4-7**

Table 4-6 Scenario 3 Population

Station	Base 2010	Trend 2040	TOD 2040	Trend TOD Growth	Trend TOD % Growth
Miami Intermodal Center	3,705	3,733	7,000	3,267	188
44th Avenue	4,862	7,713	12,010	4,297	56
Blue Lagoon	11,542	13,800	17,003	3,203	23
72nd Avenue at 7th Street	3,811	3,985	11,000	7,015	176
87th Avenue	7,554	7,869	12,694	4,825	61
97th Avenue	17,444	20,347	28,000	7,653	38
107th Avenue	8,138	11,347	21,000	9,653	85
Dolphin Terminal	4,601	4,713	7,000	2,287	49
FIU/Panther Station	14,697	16,673	22,343	5,670	34
TOTAL	**76,354**	**90,180**	**138,050**	**47,870**	**53**

Table 4-7 Scenario 3 Employment

Station	Base 2010	Trend 2040	TOD 2040	Trend TOD Growth	Trend TOD % Growth
Miami Intermodal Center	22,831	28,134	38,000	9,866	35
44th Avenue	2,250	3,791	5,162	1,371	36
Blue Lagoon	9,122	11,434	18,000	6,566	57
72nd Avenue at 7th Street	3,116	3,986	8,000	4,014	101
87th Avenue	3,259	4,135	7,219	3,084	75
97th Avenue	9,347	11,260	14,229	2,969	26
107th Avenue	9,600	17,333	24,000	6,667	38
Dolphin Terminal	885	2,517	6,000	3,483	138
FIU/Panther Station	8,145	10,713	16,578	5,865	55
TOTAL	**68,555**	**93,303**	**137,188**	**43,885**	**47**

Overall, Scenario 3 has nine total stations with a 2040 projected population increase of about 48,000 over 2040 Trend and an approximate 44,000 employment increase compared to 2040 Trend.

Figure 4-5 Scenario 3 - Quadrant Emphasis

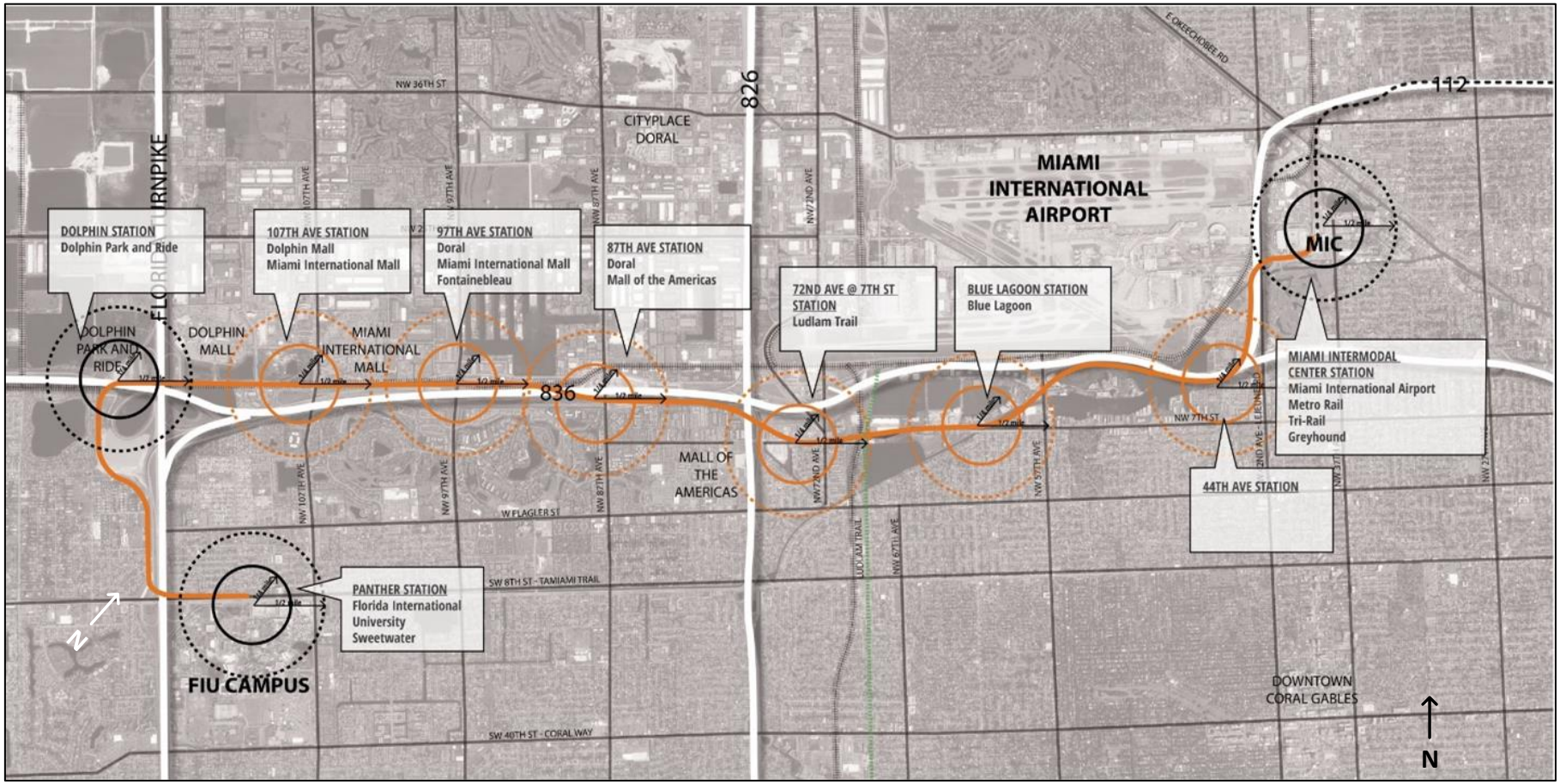


Figure 4-6 Scenario 3 Forecasts

4.3 Phase 2 Scenario Development

The second phase of scenario development was based on the revised project limits to Tamiami Terminal. Phase 2 consists of Scenario 4 which was developed as a result of the adoption of the LPA BRT service scenario in the Fall of 2020. Scenario 4 was refined after another SAC meeting in December 2020 and the second public charrette series that was held in February 2021.

Stations and Station Areas

The stations and station areas included in Phase 2 were the locations recommended in the DTPW PD&E study. These stations were:

- Miami Intermodal Center
- Le Jeune Road
- Blue Lagoon
- 7th Street at 62nd Avenue
- 7th Street at Milam Dairy
- Mall of the Americas
- 87th Avenue
- 97th Avenue
- 107th Avenue
- Dolphin Terminal
- Tamiami Terminal

Scenario 4 – Preferred BRT Scenario

Scenario 4 is a hybrid of the three East-West Corridor Scenarios. The following factors were considered when Scenario 4 was developed:

- Transit readiness of the East-West Corridor including:
  - Transit supportive land use plans in place in the following cities: Miami, Doral, and Sweetwater.
  - The City of Miami has implemented Form Based Zoning Codes
- Positive input from the public, municipalities along the corridor, and private sector for transit investment along the East-West Corridor

The socio-economic data projections associated with the station areas in the Preferred Land Use Scenario are summarized in **Tables 4-8** and **4-9** and key characteristics are summarized below:

- Population growth distributed throughout the corridor
- 87th Avenue and the Miami Intermodal Center remain the regional centers for residential and employment activities, respectively; and,
- Employment growth is anticipated at the 97th, 107th Avenue, and MIC stations because of redevelopment potential in the area.

Table 4-8 Scenario 4 Population

Station	Base 2010	Trend 2040	2040 Trend + SMART Plan	2040 SMART Plan – Trend Growth	2040 SMART Plan – Trend % Growth
Miami Intermodal Center	3,705	3,733	5,600	1,867	50
LeJeune Road	4,862	7,713	8,300	587	8
57th Avenue at Blue Lagoon	7,893	9,619	10,400	781	8
7th Street at NW 62nd Avenue	3,649	4,181	5,200	1,019	24
7th Street at Milam Diary	3,811	3,985	5,000	1,015	25
Mall of the Americas	5,796	5,958	7,500	1,542	26
87th Avenue	21,058	24,175	26,700	2,525	10
97th Avenue	7,785	8,231	11,000	2,769	34
107th Avenue	8,138	11,347	15,600	4,253	37
Dolphin Terminal	4,601	4,713	7,200	2,487	53
Tamiami Terminal	4,856	9,053	10,500	1,447	16
TOTAL	**76,154**	**92,708**	**113,000**	**20,292**	**22**

Table 4-9 Scenario 4 Employment

Station	Base 2010	Trend 2040	2040 Trend + SMART Plan	2040 SMART Plan – Trend Growth	2040 SMART Plan – Trend % Growth
Miami Intermodal Center	22,831	28,134	35,600	7,466	27
LeJeune Road	2,250	3,791	4,000	209	6
57th Avenue at Blue Lagoon	4,723	6,073	6,500	427	7
7th Street at 62nd Avenue	7,668	9,370	11,700	2,330	25
7th Street at Milam Diary	2,942	3,756	4,700	944	25
Mall of the Americas	1,545	4,578	5,600	1,022	22
87th Avenue	3,918	4,916	5,400	484	10
97th Avenue	9,041	11,992	15,000	3,008	25
107th Avenue	9,600	17,333	22,500	5,167	30
Dolphin Terminal	885	2,517	4,000	1,483	59
Tamiami Terminal	1,572	3,392	4,000	608	18
TOTAL	**66,975**	**95,852**	**119,000**	**23,148**	**24**

4.4 Scenario Evaluation

As summarized in **Table 4-10**, a variety of candidate parameters were considered for evaluating land use scenarios. The applicability, sensitivity, data availability, and ease of use were considered before deciding whether to apply each parameter. Based on this assessment, the quantitative criteria selected to evaluate land use scenarios are transit ridership measured using weekday transit boardings and FTA's land use ratings based on employment and population density. The ridership data was estimated from the FTA's STOPS model. In addition to the quantitative methods, qualitative criteria (public input and local context) were also used and are discussed in the ***Charrette and Stakeholder Coordination*** chapter.

Table 4-10 Potential Evaluation Criteria

Parameter	Criteria	Applicability	Selection
Transit ridership	Weekday boardings by station	Direct correlation with scenarios and measurable data can be developed. Applicable at station level.	Yes
Mixed use development potential	Employment to population ratio	Not a global measure due to differing community interests for growth	No
Redevelopment potential	Parcel suitability for redevelopment	Not sensitive to different scenarios since the suitability remains constant	No
Land use transition into neighborhoods	Dwelling units per acre or floor area ratio within 0.25-mile and 0.50-mile radii of station	Not a global measure due to differing community interests for growth	No
Public input	From charrette meetings	Scenarios were refined based on public input	Yes
Local context	Consistency with land use plans	Scenarios were refined based on Study Advisory Committee meetings and review of local plans	Yes
FTA Land Use criteria	Employment and population density	This criterion is applicable at the overall corridor level.	Yes

Phase 1 Scenario Evaluation

Scenarios 1 through 3 were evaluated using the FTA's STOPS ridership estimates and the Land Use Criteria for New Starts projects (see **Table 4-11**). While transit ridership criteria are applicable at system and station area level, land use criteria are applicable at the corridor level only.

Table 4-11 Phase 1 Scenario Evaluation

Scenario	2040 Trend	2040 Transit Scenarios
Scenario 1 (Commuter Rail)	2,500	3,400
Scenario 2 (BRT)	4,600	5,300
Scenario 3 (Heavy Rail)	12,500	14,900

Phase 2 Scenario Evaluation

Scenario 4 was evaluated using the FTA's STOPS ridership estimates and the Land Use Criteria for New Starts projects. While transit ridership criteria are applicable at system and station area level, land use criteria are applicable at the corridor level only.

The STOPS model estimates for the Preferred Land Use Scenario considered 10 potential stations, as identified in the PD&E study. **Table 4-12** summarizes the three largest stations from the modeling as 87th Avenue, MIC, and Dolphin Station based on the 2040 build trend and the preferred scenario. Additionally, in 2040, these routes are projected to have approximately 13,500 riders with development patterns as they are today. With the TOD scenario, that ridership is projected to grow to 15,000 (**Table 4-13**).For reference, **Figure 4-7** displays the three BRT routes.

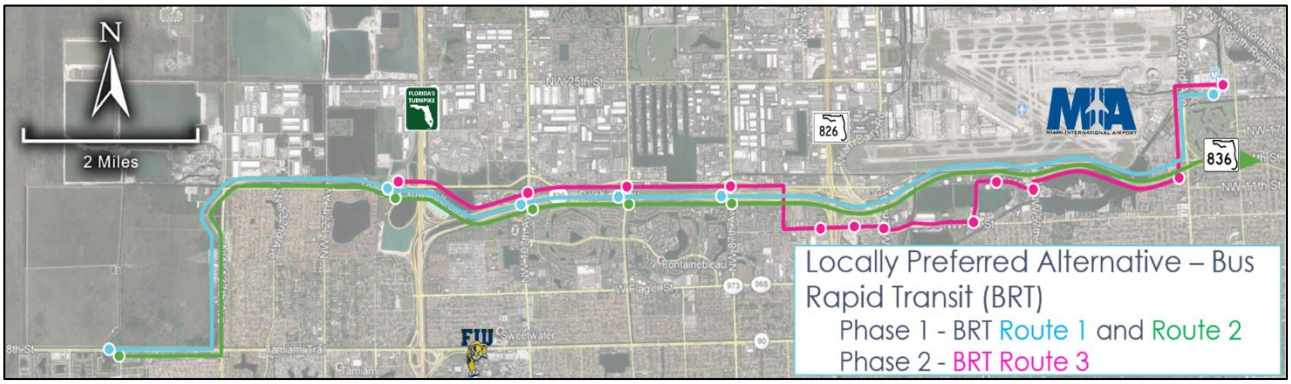
Table 4-12 Scenario 4 Station Boarding Estimates

Station	2040 Trend	Preferred Scenario
Miami Intermodal Center	1,976	2,617
NW 87th Avenue	3,206	3,591
Dolphin Terminal	959	951
Total	6,141	7,159

Table 4-13 Scenario 4 Route Boarding Estimates

Station	2040 Trend	Preferred Scenario
Blue Route (Phase 1)	2,196	1,800-3,500
Green Route (Phase 1)	7,477	6,000-8,500
Pink Route (Phase 2)	3,766	3,000
Total	13,439	10,800-15,000

Figure 4-7 LPA BRT Routes



4.5 Preferred Land Use Scenario

Scenario 4 was identified as the preferred land use scenario. This was based on factors including consistency with LPA BRT transit scenario, results and recommendations from the DTPW study, input from public charrette series, input from commissioners, input from the SAC, and the results from the scenario evaluation.

5.0 Station Area and Land Use Policy Recommendations

Once Scenario 4 was identified as the preferred land use scenario, further analysis and refinement of the station areas within the scenario took place. Additionally, the existing land use policies across the municipalities were reviewed and land use policy revisions were recommended that would further implement the land use vision of the SMART Plan along the East-West Corridor.

5.1 Station Area Analysis and Recommendations

Once the preferred land use was identified, each of the stations and corresponding station areas within Scenario 4 were evaluated for TOD opportunities, readiness, and constraints. The station area is defined as the land area within a one half-mile radius of the potential station location, as identified by DTPW's PD&E study.

TOD Evaluation Criteria

Each of the station areas in Scenario 4 were analyzed based on a range of TOD evaluation criteria and supporting data/input sources summarized in **Table 5-1** below.

Table 5-1 TOD Evaluation Criteria

EVALUATION CRITERIA FOR LAND USE POLICY RECOMMENDATIONS:	DATA / INPUT SOURCES:
♦ **Station Area Characteristics** Quantity and Quality of access, amenities, and services ♦ **Station Area Vision** Charrette Input / Community Vision ♦ **Urban Center Typology** Identified in Miami-Dade County's adopted 2020-2030 CDMP ♦ **Supportive Land Use and Zoning** Including Transit- Oriented Development Potential Analysis of current regulations ♦ **Analysis of Potential Density and Intensity** Of development within station areas	♦ **Baseline / Growth Trend Data** The 2010 and 2040 baseline and trend growth data for population and employment was obtained from the Florida Standard Urban Transportation Model Structure (FSUTMS) Southeast Florida Regional Planning Model (SERPM). ♦ **Scenarios Data** The land use scenarios were developed in coordination with the SAC and with input from the public attendees during Visioning Charrette meetings. ♦ **Land Use and Zoning:** Existing Land Use from Miami-Dade County's GIS Open Data (Developed by RER); Future Land Use from Miami-Dade RER; Incorporated and unincorporated Zoning from Miami-Dade County's GIS Open Data.

The TOD evaluation criteria is further defined as follows:

Station Area Characteristics: The general proposed location of the station as identified by the East-West Corridor PD&E study. The locational aspects of the station area were analyzed to determine the degree in which the quantity and quality of access, amenities, and services in and near the Station Location and within the Station Area are sufficient to support TOD. The evaluation criteria included an analysis of the existing urban form (block and street grid), pedestrian access, bicycle access, number of parks, and transit service frequency.

Station Area Vision: TOD must be shaped by and for the communities in which they are built. TOD is more than mixed-use development or a multi-building development project. Each TOD may look different and have a different primary function, but successful TODs share a set of planning and design principles. These principles shape the land use, circulation, urban form, and overall performance. This analysis considers the Station Area's capacity to attract ridership and serve transit-dependent populations or high-density population/employment centers while providing connectivity to the overall multimodal transportation network.

Supportive Land Use and Transit-Oriented Development (TOD) Potential: The analysis provides an overview of the land use and zoning regulations stipulated by each municipality currently mapped within a half-mile radius of each identified Station Location. This analysis assesses whether the current regulatory environment allows for the development of land uses and building forms typically seen in TOD (e.g., vertical mixed-use development, multi-family housing, live-work housing, etc.), and the degree to which the regulations allow for development that is walkable, sustainable. Based on evaluations of comprehensive plans and coordination with local jurisdictions, in addition to analysis of potential density and intensity of development within the Station Area, land use regulatory consistency has been documented to assess the TOD-readiness of each Station Area. The TOD potential readiness criteria evaluates the physical, and infrastructure framework of the station area to assess the level of readiness to support new development and determines the potential capacity for new development. Criteria included: plan in place, transit-supportive zoning, developable land (vacant and underutilized), ownership fragmentation, and if a special district is in place.

TOD Evaluation along SR 836

As a general guide, transit-oriented development includes walkable areas within ½ mile (or 10 minute walk) of premium transit stations. Sometimes, this development occurs in concentric circles surrounding the station, with denser development located within ¼ mile (or 5-minute walk) of the station. However, in many cases, development is not even on all sides of transit stations, and may be focused in just one or two quadrants. This will likely be the case for many of the stations along the East-West Corridor, especially those along SR 836. The proposed 107th Avenue, 97th Avenue, and 87th Avenue Stations are located in the median of SR 836, meaning that development cannot be located directly adjacent to the stations.

Furthermore, the expressway acts as a barrier, with existing development on the north side being predominately office, retail, and industrial. Land uses on the southern side of the expressway are predominantly residential, with retail and office areas east of 82nd Avenue. In order to not impact existing neighborhoods south of SR 836, the land use scenarios evaluated in the study focused most of the additional development on the north side of the 107th Avenue, 97th Avenue, and 87th Avenue stations. This was also in part due to anticipated market changes in demand for retail space in the future. Through discussions with the public and stakeholders, a desire was expressed for more residential land uses on the north side of the expressway. By concentrating this development near the proposed transit stations, comprehensive multimodal and transit-oriented communities could develop.

Station Typologies

The TOD analysis resulted in recommended station typologies for each station area, consistent Urban Center Typologies as defined in the *Miami-Dade County's Adopted 2020-2030 Comprehensive Development Master Plan (CDMP)*, updated in June 2018. Diversified urban centers are encouraged to become hubs for future urban development intensification in Miami-Dade County, around which a more compact and efficient urban structure will evolve. Three scales of centers are detailed in the CDMP: Regional, Metropolitan and Community. The three station typologies are defined as follows:

- **Regional TOD** – are primary economic and cultural activity centers within a downtown or central business district characterized by high and/or medium density variety of residential uses along with commercial, employment, and civic/cultural uses. They serve as a commuter hub and contain an extensive mix of transit options including high-frequency, high-capacity regional rail and/or transit bus service. Regional TODs contain a well-connected street grid system and pedestrian paths, parks, and open spaces for maximum mobility and transit access. Buildings and landscaping are situated at the sidewalk's edge that have been widened. Density and 18- to 24-hour activities are usually within a one-quarter mile radius around the transit station.
  - **Physical Characteristics**: Approximately 7-15 stories high with 75+ dwelling units per acre for multi-family developments and 4.0 FAR for high-rise office/commercial (example, Downtown Coral Gables).

- **Metropolitan TOD** – serve as both origin and destination centers for commuters with a mixture of transit options connecting to the transit network. This TOD provides a regional employment or destination draw, but also functions as distinct higher density residential and mixed-use employment activity center. These TODs contain at least two modes of 18- to 24-hour transit service and are energetic, mixed-use areas with a connected street network which encourages pedestrian and bicycle activity and high-density development within a one-quarter mile radius of the station. On-street and structured parking is provided. Buildings and landscaping are situated at the sidewalk's edge that have been widened.
  - **Physical Characteristics**: Approximately 4-7 stories high with residential focused on mid-rise multi-family and non-residential focused on mid-rise buildings with minimal surface parking (example, South Beach).

- **Community/Neighborhood TOD** – are smaller, local-serving centers which function as areas of economic and community activities. These TODs have moderate to smaller sized businesses. Connected streets and pedestrian linkages are found in this TOD. A variety of transit modes serve Community centers with a mixture of origin and destination trips (i.e., primarily commuter service to jobs in the region). On-street parking serving the adjacent neighborhoods is provided along

with parks and open spaces. Community centers attract fewer residents from the rest of the region with residents within a one-half mile area comprising most users.

- Physical characteristics: approximately 1-4 storites high with residential focused on low-rise single and multi-family and non-residential focused on low-rise buildings with surface parking behind (example, Miami Lakes).

Additionally, lessons learned from the charrettes are that a station typology should:

- Be planned to serve the local community;
- Have connected streets and pedestrian and bicycle linkages;
- Be designed so that walking between destinations is direct and short;
- Have wide and landscaped sidewalks; and,
- Place mid-rise buildings at nodes or along arterials.

Overall, the charrette results indicated a preference for Community Center/Neighborhood TOD typology.

TOD Analysis Results and Station Area Recommendations

The results of the station area TOD analysis yielded a recommend station type for each station summarized in **Table 5-2** and further detailed in this section.

Table 5-2 Station Area Recommended Typologies

Station Location	Station Type
Miami Intermodal Center	Regional
LeJeune Road	Community
57th Avenue at Blue Lagoon	Community
60th Avenue at Blue Lagoon	Community
7th Street at 62nd Avenue	Metropolitan
7th Street at Milam Dairy Road	Metropolitan
The Wedge	Community
Mall of the Americas	Community
87th Avenue	Metropolitan
97th Avenue	Community
107th Avenue	Metropolitan
Dolphin Terminal	Metropolitan
Tamiami Terminal	Community

Miami Intermodal Center (MIC)

The **Regional Center** station typology is recommended for the Miami Intermodal Center station area as this area will continue to serve as an important Employment Center. **Table 5-3** provides a summary of the station area vision characteristics for MIC.

Table 5-3 Station Area Vision - MIC

Station Area Today	Station Area Vision	Station Area Analysis
Major commercial and industrial land uses **Miami International Airport is the main activity anchor** **Pedestrian access issues** **Traffic congestion**	MIC is a major employment center within the corridor Mixed use developments Enhanced livability with public plazas	Employment-oriented office and retail developments will continue to drive future growth Density analysis shows potential increase in residential population within Station Area

LeJeune Road

The Community Center station typology is recommended for the LeJeune Road station area. **Table 5-4** provides a summary of the station area vision characteristics for LeJeune Road.

Table 5-4 Station Area Vision – LeJeune Road

Station Area Today	Station Area Vision	Station Area Analysis
Pedestrian access issues **Traffic congestion**	Mixed use and low-density residential development envisioned for the area	Growth analysis indicates the potential for both population and employment growth in the area

57th Avenue at Blue Lagoon

The Community Center typology is recommended for the 57th Avenue at Blue Lagoon station area. **Table 5-5** provides a summary of the station area vision characteristics for the 57th Avenue at Blue Lagoon station.

Table 5-5 Station Area Vision – 57th Avenue at Blue Lagoon

Station Area Today	Station Area Vision	Station Area Analysis
Underutilized parcels present redevelopment and infill development opportunities	Mixed use and low-density residential development envisioned for the area	Growth analysis indicates the potential for both population and employment growth in the area

7th Street at 62nd Avenue

The Metropolitan Center station typology is recommended for the 7th Street at 62nd Avenue station area as this location has designated mixed-use areas with potential for TOD. **Table 5-6** provides a summary of the station area vision characteristics for the 7th Street at 62nd Avenue.

Table 5-6 Station Area Vision – 7th Street at 62nd Avenue

Station Area Today	Station Area Vision	Station Area Analysis
Underutilized parcels present opportunities for development and infill development **Pedestrian access is a potential issue**	Public gathering and civic spaces Transform into walkable and mixed-use district Access to open space/waterfronts	Growth analysis indicates the potential for both population and employment growth in the area

The Wedge Station

The Community Center station typology is recommended for the Wedge station area. **Table 5-7** provides a summary of the station area vision characteristics for the Wedge Station.

Table 5-7 Station Area Vision – The Wedge

Station Area Today	Station Area Vision	Station Area Analysis
Pedestrian access issues **Industrial land uses are located close to the proposed station** **Mall of the Americas is the main activity anchor**	Connect station to Ludlam Trail and Robert King High Park Mixed use and low-density residential development envisioned for the area	Growth analysis indicates the potential for both population and employment growth

NW 87th Avenue

The Community Center station typology is recommended for the 87th Avenue Station Area for the station area. **Table 5-8** provides a summary of the station area vision characteristics for 87th Avenue.

Table 5-8 Station Area Vision – 87th Avenue

Station Area Today	Station Area Vision	Station Area Analysis
Underutilized parcels present redevelopment and infill development opportunities **Pedestrian access issues**	Improve pedestrian connectivity between east and west stations Improve the outlook of 87th Avenue Low-density development within Station Area	Mixed use growth potential Analysis indicates modest population and employment growth in the vicinity of the station areas

97th Avenue

The Community Center station typology is recommended for the 97th Avenue Station Area for station area. **Table 5-9** provides a summary of the station area vision characteristics for 97th Avenue.

Table 5-9 Station Area Vision – 97th Avenue

Station Area Today	Station Area Vision	Station Area Analysis
Pedestrian access issues **Infill and redevelopment opportunities**	Low-density development within Station Area	Growth analysis indicates the potential for both population and employment growth

107th Avenue

The Metropolitan Urban Center station typology is recommended for the 107th Avenue Station Area as this location has high potential for TOD. **Table 5-10** provides a summary of the station area vision characteristics for 107th Avenue.

Table 5-10 Station Area Vision – 107th Avenue

Station Area Today	Station Area Vision	Station Area Analysis
Miami International Mall is the major activity anchor **Pedestrian access issues** **Commercial and retail dominate the area** **Infill and redevelopment opportunities**	Mixed-use development within Station Area Strong potential pedestrian connectivity between both sides of 107th Avenue Streetscape improvements Office development will experience more growth	Growth analysis indicates the potential for both population and employment growth

Dolphin Terminal

The Metropolitan Center station typology is recommended for the Dolphin Terminal station area. Table **5-11** provides a summary of the station area vision characteristics for Dolphin Terminal.

Table 5-11 Station Area Vision – Dolphin Terminal

Station Area Today	Station Area Vision	Station Area Analysis
Undeveloped parcels north of the proposed station area provide opportunities for development	Ponds and lakes provide opportunities for public spaces and waterfront access	Growth analysis indicates the potential for both population and employment growth

Tamiami Terminal

The Metropolitan Center station typology is recommended for the Tamiami Terminal station area. **Table 5-12** provides a summary of the station area vision characteristics for the Tamiami Terminal.

Table 5-12 Station Area Vision – Tamiami Terminal

Station Area Today	Station Area Vision	Station Area Analysis
Pedestrian access issues	High-density residential development envisioned for the area	Growth analysis indicates the potential for both population and employment growth

5.2 Land Use Policy Analysis and Recommendations

To successfully implement the land use vision for the corridor, existing land use policies were evaluated for consistency with the vision and ability to implement TOD and station area recommendations. Based on the evaluation, a series of land use policy revisions are recommended and summarized in this section.

Land Use Policy Analysis

The first part of the analysis was to determine if the station area vision aligned with the station typology. **All station typologies were found to be consistent with the location station area visions.** The station areas with the highest TOD potential include Dolphin Terminal, MIC, and 107th Avenue.

The following are extracts of Miami-Dade's CDMP Transportation and Land Use Elements transit supportive goals, objectives, and policies.

II. Transportation Element

Objective MT-2

Coordinate the provision of efficient transit service and facilities with the location and intensity of designated future land use patterns as identified on the Land Use Plan Map, and the goal, objectives and policies of the Land Use Element.

- **Policy MT-2A.** Transit system improvements shall be coordinated with, and support the staging and shaping of development as planned in the Land Use Element, through Miami-Dade County's transportation planning process.

- **Policy MT-2B.** The area surrounding future rapid transit stations not yet sited or depicted on the Land Use Plan map shall be designed and developed, at a minimum, as community urban centers, containing land use and development designs that promote transit use as defined in the Land Use Element.

II. Land Use Element

Objective LU-7

Miami-Dade County shall require all new development and redevelopment in existing and planned transit corridors and urban centers to be planned and designed to promote transit-oriented development (TOD), and transit use, which mixes residential, retail, office, open space and public uses in a safe, pedestrian and bicycle friendly environment that promotes mobility for people of all ages and abilities through the use of rapid transit services.

- **Policy LU-7A**. Through its various planning, regulatory and development activities, Miami-Dade County shall encourage development of a wide variety of residential and nonresidential land uses and activities in nodes around rapid transit stations to promote mobility, produce short trips, minimize transfers, attract transit ridership, and promote travel patterns on the transit line that are balanced directionally and temporally to promote transit operational and financial efficiencies. Land uses that may be approved around transit stations shall include housing, shopping and offices in moderate to high densities and intensities, complemented by compatible entertainment, cultural uses and human services in varying mixes. The particular uses that are approved in a given station area should, a) respect the character of the nearby community, b) strive to serve the needs of the community for housing and services, and, c) promote a balance in the range of existing and planned land uses along the subject transit line. Rapid transit station

sites and their vicinity shall be developed as "urban centers" as provided in this plan element under the heading Urban Centers.

- **Policy LU-7B**. It is the policy of Miami-Dade County that both the County and its municipalities shall accommodate new development and redevelopment around rapid transit stations that is well designed, conducive to pedestrian, bicycle and transit use, and architecturally attractive. In recognition that many transit riders begin and end their trips as pedestrians or bicyclists, pedestrian and bicycle accommodations shall include, as appropriate, continuous sidewalks to the transit station, cross walks and pedestrian signals, bicycle lanes/paths, bicycle parking facilities, small blocks and closely intersecting streets, buildings oriented to the street or other pedestrian/bicycle paths, parking lots predominantly to the rear and sides of buildings, primary building entrances as close to the street or transit stop as to the parking lot, shade trees, awnings, and other weather protection for pedestrians and bicyclists.

- **Policy LU-7C**. On all streets served by Metrobus and all arterial or collector streets designated in the Mass Transit Subelement as year 2030 or 2040 potential service areas:
  i) New non-residential buildings and substantial alterations of existing nonresidential buildings, and residential buildings wherever practical, shall provide at least one full-time building entrance that is recognizable and accessible from the street and is comparably as close to the street and/or bus stop as it is to the primary parking lot; and
  ii) New residential and non-residential developments, subdivisions and replats shall provide for buildings that front the transit street, or provide streets or pedestrian connections that intersect with the transit street in close proximity to bus stops not more than 700 feet apart and, as appropriate, shall provide for new bus stops and/or pullouts.

- **Policy LU-7D**. Redevelopment of property within one-half mile of existing or planned mass transit stations and bus routes shall not cause an increase in walking distances from nearby areas to the transit services and shall, wherever practical, be done by establishing blocks of walkable scale that form an interconnected network of streets, maximizing connectivity with existing streets and promoting a comfortable and attractive environment for pedestrians of all ages and abilities.

- **Policy LU-7E**. Land uses that are not conducive to public transit ridership such as car dealerships, car oriented food franchises, and uses that require transporting large objects should not be permitted to locate or expand within 1/4 mile of rail rapid transit stations.

- **Policy LU-7F**. Residential development around existing and proposed rapid transit stations should have a minimum density of 15 dwelling units per acre (15 du/ac) within 1/4 mile walking distance from the stations and 20 du/ac or higher within 700 feet of the station, and a minimum of 10 du/ac between 1/4 and 1/2 mile walking distance from the station. Business and office development around rail stations should have a minimum intensity of 1.5 FAR within 1/4 mile walking distance from the station, 2.0 FAR within 700 feet, and 1.0 FAR between 1/4 and 1/2 mile walking distance from the station. Where existing and planned urban services and facilities are adequate to accommodate this development as indicated by the minimum level-of-service standards and other policies adopted in this Plan, and where permitted by applicable federal and State laws and regulations, these densities and intensities shall be required in all subsequent development approvals. Where services and facilities are currently or projected to be inadequate, or where required by Policy LU-7A, development may be approved at lower density or intensity

provided that the development plan, including any parcel plan, can accommodate, and will not impede, future densification and intensification that will conform with this policy.

- **Policy LU-7G**. Miami-Dade County should partner with the Transportation Planning Organization (TPO) and affected municipalities to establish a systematic program that will produce transit-oriented development (TOD) plans for the areas within ¼ to ½ mile around all Metrorail, the Miami Intermodal Center (MIC), and Strategic Miami Area Rapid Transit (SMART) Plan rapid transit corridor stations. Transit-oriented development is a mix of land uses that promotes transit use and decreases the dependence on automobiles. A phasing program shall also be established as part of this effort to initiate and formulate updated or new station area plans based on the overall priority categories for urban centers established by the Board of County Commissioners. Within each priority category, the factors for individual area plans may include such conditions as locations and amounts of undeveloped and underutilized land providing development and redevelopment opportunities, ownership, land use patterns, infrastructure and service levels, recent and nearby development activity, and expressions of interest in cooperating by the municipalities. Priority for station development or improvement shall be for those municipalities that have established zoning standards that ensure minimum average residential density and non-residential intensity in accordance with Policy LU-7F.

- **Policy LU-7H**. The Department of Regulatory and Economic Resources shall review land development regulations to identify reforms that would invite, and not impede, transit oriented development in the station areas, by the year 2020.

- **Policy LU-7I**. Miami-Dade County will continue to review development incentives to encourage higher density, mixed use and transit-oriented development at or near existing and future transit stations and corridors, and continue to update its land development regulations to remove impediments and promote transit-oriented development.

Mixed Use Development

Vertical and horizontal mixed-use development may be allowed within the Urban Development Boundary (UDB), provided that the development is located in:

3. Rapid Transit Activity Corridors which includes the areas within one-half mile of the existing Metrorail corridor and the following proposed SMART Plan corridors: Kendall Drive, Beach Corridor, North Corridor, Northeast Corridor, and the South Dade Transitway Corridor. It also includes the area within one mile of the proposed East-West SMART Plan Corridor.

Miami-Dade CDMP (2030) Future Land Use Designations

Definition of Urban Centers

Diversified urban centers are encouraged to become hubs for future urban development intensification in Miami-Dade County, around which a more compact and efficient urban structure will evolve. These Urban Centers are intended to be moderate- to high-intensity design-unified areas which will contain a concentration of different urban functions integrated both horizontally and vertically. Three scales of centers are planned: Regional, the largest, notably the downtown Miami central business district; Metropolitan Centers such as the evolving Dadeland area; and Community Centers which will serve localized areas. Such centers shall be characterized by physical cohesiveness, direct accessibility by mass transit service, and high quality urban design. Regional and Metropolitan Centers, as described below, should also have convenient, preferably direct, connections to a nearby expressway or major roadways to ensure a high level of countywide accessibility.

The locations of urban centers and the mix and configuration of land uses within them are designed to encourage convenient alternatives to travel by automobile, to provide more efficient land use than recent suburban development forms, and to create identifiable "town centers" for Miami-Dade's diverse communities. These centers shall be designed to create an identity and a distinctive sense of place through unity of design and distinctively urban architectural character of new developments within them.

Urban Centers are identified on the Land Use Plan (LUP) map by circular symbols noting the three scales of planned centers. The Plan map indicates both emerging and proposed centers. The designation of an area as an urban center indicates that governmental agencies encourage and support such development. The County will give special emphasis to providing a high level of public mass transit service to all planned urban centers. Given the high degree of accessibility as well as other urban services, the provisions of this section encourage the intensification of development at these centers over time. In addition to the Urban Center locations depicted on the Land Use Plan Map, all future rapid transit station sites and their surroundings shall, at a minimum, be developed in accordance with the Community Center policies established below.

Policies for Development of Urban Centers

Where the provisions of the section of Urban Centers authorize land uses or development intensities or densities different or greater than the underlying land use designation on the LUP map, the more liberal provisions of the section of the CDMP shall govern. All development and redevelopment in Urban Centers shall conform to the guidelines provided in the Comprehensive Plan related to:

- Uses and Activities
- The following radiuses:
  - **Regional Urban Center –** Shall extend one-mile radius around the core or central transit station. Urban Center development shall not extend beyond the UDB.
  - **Metropolitan Urban Center –** Shall extend not less than one-quarter mile from the core of the center or central transit stop(s) and may extend up to one-half mile from such core or transit stops along major roads and pedestrian linkages.

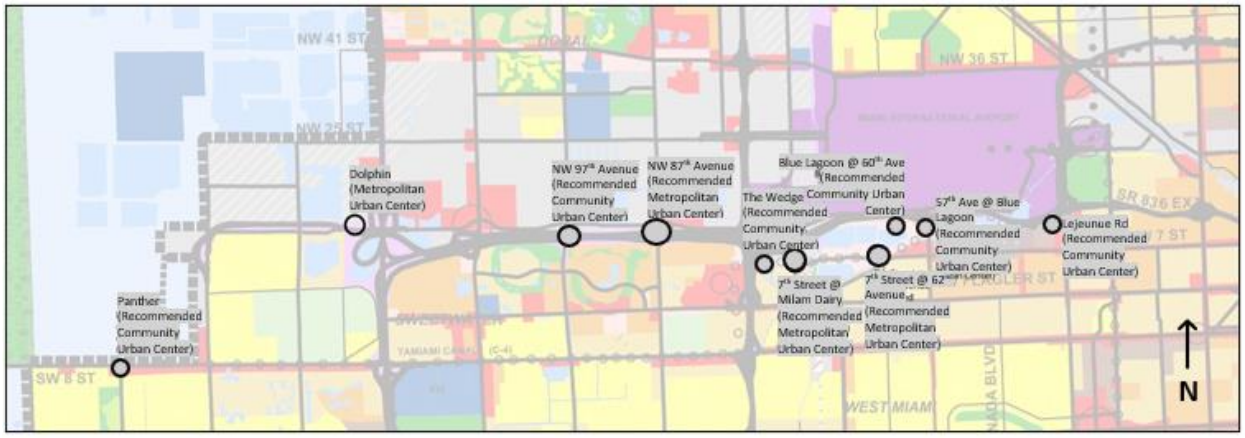
- **Community Center** – Shall have a radius of 700 to 1,800 feet but may be extended to a radius of one-half mile where recommended in a professional area plan for the center, consistent with the guidelines herein, which plan is approved by the Board of County Commissioners after an advertised public hearing.

- Streets and Public Spaces
- Parking
- Buildings
- Density and Intensity (urban centers are encouraged to intensify incrementally over time. Accordingly, in planned future rapid transit corridors, these intensities may be implemented in phases as necessary to conform with provisions of the Transportation Element, and the concurrency management program in the Capital Improvement Element, while ensuring achievement of the other land use and design requirements of this section and Policy LU-7F)

As summarized in **Table 5-13 and Figure 5-1**, transit supportive land use policies are already in place at the MIC, Mall of the Americas, and 107th Avenue locations. However, the Future Transit Urban Center Radii in the Comprehensive Development Master Plan (CDMP) Future Land Use (FLU) Map would need to be updated in accordance with the designation assigned to each station in this report.

Table 5-13 CDMP FLU Designations

Station Location	Current Urban Center Designation	Recommended Urban Center Designation
Miami Intermodal Center	Regional Urban Center	-
LeJeune Road	-	Community Urban Center
57th Avenue/Blue Lagoon	-	Community Urban Center
60th Avenue/Blue Lagoon	-	Community Urban Center
7th Street/62nd Avenue	-	Metropolitan Urban Center
7th Street/Milam Dairy	-	Metropolitan Urban Center
The Wedge	-	Community Urban Center
Mall of the Americas	Community Urban Center	-
87th Avenue	-	Metropolitan Urban Center
97th Avenue	-	Community Urban Center
107th Avenue	-	Metropolitan Urban Center
Dolphin Terminal	Metropolitan Urban Center	-
Tamiami Terminal	-	Community Urban Center



Land Use Policy Updates

The provisions and policies for the development of Urban Centers in the CDMP already authorize land uses or development intensities or densities different or greater than the underlying land use designation on the LUP map. Meaning, that the majority of the station areas already have the land use designations they would need to support future TOC uses and densities. However, it is recommended to update two of the future land use categories in the CDMP at the locations listed in **Table 5-14** to encourage compatible development patterns and land uses consistent with Objective LU-4 of the Comprehensive Plan. **Figure 5-2** displays the approximate half-mile station area locations of the potential land use amendments.

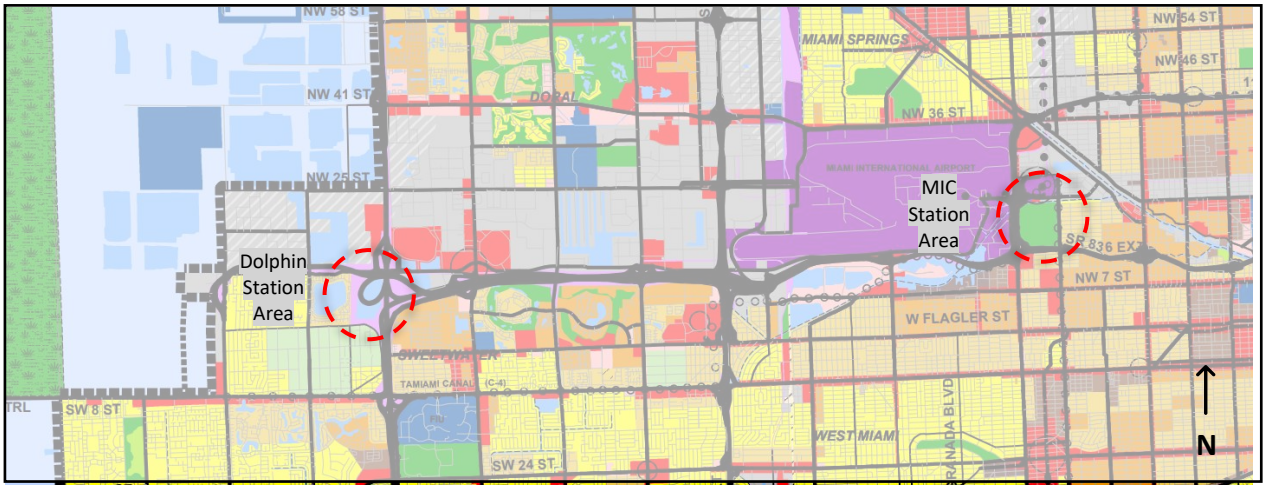
Table 5-14 Land Use Policy Updates

Station	Station Area Rec. Typology	Existing FLUC Designations within Station Area	Proposed FLUC Designation	Notes
Miami Intermodal Center	Regional	Industrial and Office	Business and Office	Area east of NW 37th Ave and south of Palmer Lake. The area is currently primarily designated as an Industrial and Office. The area is already established as a Regional Urban Center. It has the potential to become an active self-sufficient urban center by incorporating a mix of uses that would provide a 24-hour urban living option to Miami-Dade's residents due to its proximity to the Downtown and multi-modal connectivity. This location is also a preferred alternative for higher and better use given its adjacency to the Miami International Airport, following the example of other cities that have created urban centers close to airports.
		Terminals	No action needed.	
LeJeune Road	Community	Medium-High Density Residential 25-60 DU/AC	No action needed.	No action needed.
		Business and Office		
		Medium Density Residential 13-25 DU/AC		
57th Ave/ Blue Lagoon	Community	Office/Residential	No action needed.	No action needed.
		Business and Office		
60th Ave/ Blue Lagoon	Community	Office/Residential	No action needed.	No action needed.

7th Street / 62nd Ave	Metropolitan	Office/Residential	No action needed.	The station is within ½ mile of the Blue Lagoon Development Area. The Blue Lagoon Development Area includes those portions of the Corridor located between NW 7 Street and the Tamiami Canal. Uses permitted in the Blue Lagoon Development Area shall include the full range of sales and service activities. Residential uses, and mixing of residential use with commercial, office and hotels are also permitted. Development shall be limited as follows: · Maximum Density: 125 dwelling units per gross acre · Maximum Floor Area Ratio: 5.0 · Maximum Building Height: Twelve (12) stories
		Business and Office	No action needed.	No action needed.
7th Street/ Milam Dairy Road	Metropolitan	Medium Density Residential 13-25 DU/AC	No action needed.	No action needed.
		Industrial and Office	No action needed.	Traditional Neighborhood Developments (TNDs) may be permitted under specific conditions.
		Low-Medium Density Residential 6-13 DU/AC	No action needed.	No action needed.
The Wedge	Community	Industrial and Office	No action needed.	TNDs may be permitted in Industrial and Office areas under specific conditions.
		Low-Medium Density Residential 6-13 DU/AC	No action needed.	No action needed.
Mall of the Americas	Community	Business and Office	No action needed.	No action needed.
		Medium Density Residential 13-25 DU/AC	No action needed.	No action needed.
		Office/Residential	No action needed.	No action needed.
87th Avenue	Metropolitan	Business and Office	No action needed.	No action needed.
		Industrial and Office	No action needed.	Area north of 836. This is not the ideal Land Use around a Metropolitan Station Area, however, during the workshops City of Doral representatives expressed that they wish to preserve the industrial land uses at this location.
		Medium Density Residential 13-25 DU/AC	No action needed.	No action needed.

97th Avenue	Community	Industrial and Office	No action needed.	Area north of 836. This is not the ideal Land Use around a Metropolitan Station Area, however, during the workshops City of Doral representatives expressed that they wish to preserve the industrial land uses at this location.
		Medium Density Residential 13-25 DU/AC	No action needed.	No action needed.
107th Avenue	Metropolitan	Business and Office	No action needed.	No action needed.
		Industrial and Office	No action needed.	No action needed.
Dolphin Terminal	Metropolitan	Restricted Industrial and Office	Business and Office	Area north of the station. The Dolphin Station, already designated as a Regional Urban Center, has the potential to incorporate a mix of uses becoming Miami-Dade's Western-most option for urban living and commercial destination due to its adjacency to the Turnpike and feeding from the I-395. This crossroads also provides an opportunity to enhance and expand its park-and-ride facilities to reduce congestion and encourage ridership along the E-W SMART Plan Corridor.
		Low-Medium Density Residential 6-13 DU/AC	No action needed.	No action needed.
		Business and Office	No action needed.	No action needed.
Tamiami Terminal	Community	Business and Office	No action needed.	No action needed.
		Low Density Residential 2.5-6DU/AC	No action needed.	No action needed.

Figure 5-2 Land Use Policy Updates



Adopted 2030 and 2040 CDMP Land Use Plan Map, February 2021.

6.0 Conclusion

Overall, the purpose of this report was to summarize the results of the Land Use Scenario and Visioning Planning Study for the SMART Plan East-West corridor. The study was conducted concurrently with a DTPW PD&E Study that resulted in recommending a BRT system along the East-West Corridor as the locally preferred transit alternative.

The initial study area included a half-mile buffer along the Florida Turnpike/SR 836 from Florida International University (FIU) to the Miami Intermodal Center at the Miami International Airport. As the study evolved, the western limits shifted from FIU to the Tamiami Terminal.

There was extensive public involvement and stakeholder coordination throughout the study process. Two public charrette series were held over the four-year study process, and five SAC meetings took place. In addition to these efforts, coordination with Miami-Dade TPO and meetings with commissioners occurred throughout the study process.

Four land use scenarios were developed and evaluated throughout the study process over two phases. The first phase of scenarios included scenarios one through three and were based on the initial study area limits. The fourth land use scenario was developed once the BRT system was identified as the locally preferred alternative. This scenario was a hybrid of the previous three scenarios and incorporated the revised project area. All of the scenarios were tested based on an evaluation matrix and presented to the public. As a result, the fourth scenario was identified as the preferred land use scenario.

Once the preferred land use scenario was established, the stations identified within the DTPW study were further refined and assigned a recommended typology based on a TOD analysis and typologies defined in the Miami-Dade CDMP.

Finally, existing land use policies were evaluated for consistency with the vision of the preferred land use scenario and station area recommendations. Recommended revisions were provided to these land use policies that will facilitate the implementation of the land use vision.

Overall, after extensive data collection, analysis, and public engagement, it was determined with adjustments to population and employment in the station areas, the East-West Corridor can support a 2040 population of approximately 127,000 and 114,000 jobs in a variety of zoning typologies. This is approximately 22% higher than the non-TOD growth estimates.

As the application for Federal Transit Administration (FTA) approval of the East-West Corridor Locally Preferred Alternative moves forward, applying this land use visioning process with newly-developed 2045 LRTP data will be important for the following reasons: by supporting housing and economic development policies which will increase population employment in each station area; and, by making the recommended changes to the local governments' comprehensive plans to support the land use/zoning changes. It should be noted that the increased population and employment is not required to implement the SMART Plan for the East-West corridor, but is desirable to fulfilling the multimodal development vision for the area.

Appendix A: Nationwide Literature Review

Nationwide Land Use Scenarios

Nationwide best practices in the development of land use scenarios to support major transit systems were identified and reviewed. The four selected scenario planning best practices include:

- 2035 Regional Transportation Plan, Southeast Michigan Council of Governments
- 2035 Metro Vision, Denver Regional Council of Governments (DRCOG)
- 2040 Metropolitan Transportation Plan, North Carolina
- Direction 2040 LRTP, Memphis MPO

2035 Regional Transportation Plan, Southeast Michigan Council of Governments (SEMCOG)

In 2009, SEMCOG used scenario planning to test five investment scenarios in the Delaware area to allocate funding. In part, the scenarios were used as a public engagement tool to educate the public on investment trade-offs. The five scenarios were:

- Transit First: emphasizing transit system performance
- Preservation First: emphasis on pavement and bridge performance
- Public Opinion: funds allocated to programs preferred by the public
- Trend: current trend extended to the future
- Maximize Performance: balancing funding across priorities to achieve equal performance in each category.

The performance measures included:

- Pavement Condition: percent in good or fair condition
- Hours of Delay: per 1,000 vehicle miles
- Bridge Condition: percent in good or fair condition
- Fatalities
- Extent of transit network
- Population: within one-half mile of a nonmotorized facility

Through the scenario planning process, SEMCOG became better equipped with information to support decision-making.

2035 Metro Vision, Denver Regional Council of Governments (DRCOG)

DRCOG developed five scenarios for their 2035 Metro Vision plan update. The scenarios focused on changes to the urban growth boundary, density, the fiscally constrained roadway and transit networks, and driving and transit pricing. The six scenarios were evaluated using the following outcome measures:

- Increase in transit use and access
- Decrease in driving and infrastructure spending
- Air quality and water use efficiency
- Water use efficiency
- Need for water treatment facilities
- Decrease in land consumption
- Increase in urban center development
- Increase in development downtown
- Increase in development near transit

The goals and benefits were interrelated with each scenario, leading to scenario planning representing an effective way to demonstrate the cumulative benefits of a set of strategies that would result in the best performance overall for the region.

2040 Metropolitan Transportation Plan, North Carolina

The Durham-Chapel Hill-Carrboro and Capital Area MPOs collaborated on the combined transportation and land use scenarios for the 2040 Metropolitan Transportation Plan. Six scenarios were developed based on performance measures such as LOS, average travel time, mode share, and transit ridership. Performance measures were also reviewed by transit service sub-areas and specific travel corridors, in contrast to regional models. The six scenarios are summarized below.

Alternative	Transportation Scenario	Land Use Scenario
1	Roadway Intensive – abundant highway projects, no light or commuter rail	Community Plan – population and employment growth occurs based on current land use plans
2	Transit Intensive – includes large bus transit improvements, extensive light rail, and commuter rail service.	Community Plan – Population and employment growth occurs based on current land use plans
3	Moderate – includes most of the highway, bus, and rail transit projects included in the 2040 MTP	Community Plan – Population and employment growth occurs based on current land use plans
4	Trend and Transit Plans – includes highway projects at current spending levels; bus and rail transit projects that are in the 2040 MTP	Community Plan – Population and employment growth occurs based on current land use plans
5	Transit Intensive – includes large bus transit improvements, extensive light rail, and commuter rail service.	All-in-Transit – Population and employment growth based on current land use plan but uses additional and more intensive transit-oriented development, and land use modeling increased attractiveness to rail and premium transit
6	Moderate – includes most of the highway, bus, and rail transit projects included in the 2040 MTP	All-in-Transit – Population and employment growth based on current land use plan but uses additional and more intensive transit-oriented development, and land use modeling increased attractiveness to rail and premium transit

Source: Supporting Performance-Based Planning and Programming through Scenario Planning, June 2016, Federal Highway Administration

Direction 2040, Memphis MPO LRTP

The Memphis Urban Area MPO began a regional visioning and scenario planning process in 2009 titled "Imagine 2040 Transportation and Land Use Plan". This process was initiated in advance of the 2040 LRTP to provide an opportunity for residents and other stakeholders to explore and debate regional growth visions, trade-offs, and alternate growth strategies for the region. Scenario planning was used to identify regional goals and values and to explore alternatives for growth, development, and transportation investment. The following lists the methods of the scenario planning process utilized by the Memphis MPO:

- Data gathering - Building the scenario planning tools depended largely on the availability and quality of technical and non-technical data for the region. MPO staff coordinated a regional data

collection effort by meeting with all local municipalities to ensure the MPO received the most recent GIS data. Specific data collected included:

- Natural and built environment
- Supporting infrastructure
- Jurisdictional limits
- Local plans, policies, and ordinances

- Model development - After data was gathered, the MPO determined a set of 'place types' synthesizing the received land use data. MPO staff met with the local jurisdictions to ensure the land use information accurately represented the jurisdiction. Examples of place types include:
  - Rural or Estate Residential
  - Urban Neighborhood
  - Central Business District
  - Mixed Use District

- Suitability factors were ranked by four focus groups (business and development, community and civic, government, planning department) and then added to model. Examples of suitability factors include:
  - Water and sewer
  - Adopted plans and zoning
  - Transit stations and bus routes

- Public workshops - A series of workshops were developed by the MPO to involve the public in the scenario planning process. One tool used was the 'development chip game', in which participants placed chips representing a place type, and then drew proposed transportation and infrastructure improvements. Participants also developed brief policy statements addressing specific issues.

- Growth Scenarios - Participants throughout the region collaborated on the development of two growth visions; a Base Growth Scenario and a Centers and Corridors Scenario. Both scenarios assumed the same transportation network.

  - Base Growth Scenario developed from existing plans, programs, and policies consistent with adopted land use and comprehensive plans of local jurisdictions.
  - Centers and Corridors Scenario developed using additional input from local planners, engineers, and members of the public to depict a higher-than-expected percentage of growth around established destinations (Centers) and key transportation routes (Corridors).
  - Centers – "Preferred Growth Areas" and TOD centers utilized Corridors included major roads that could eventually support rapid transit between centers.

- Growth Allocation Model - This land use model demonstrated different development patterns and measured their impacts. These impacts were considered in the evaluation of growth alternatives. CommunityViz, an extension of ArcGIS, was used to allocate projected growth in households and employment.

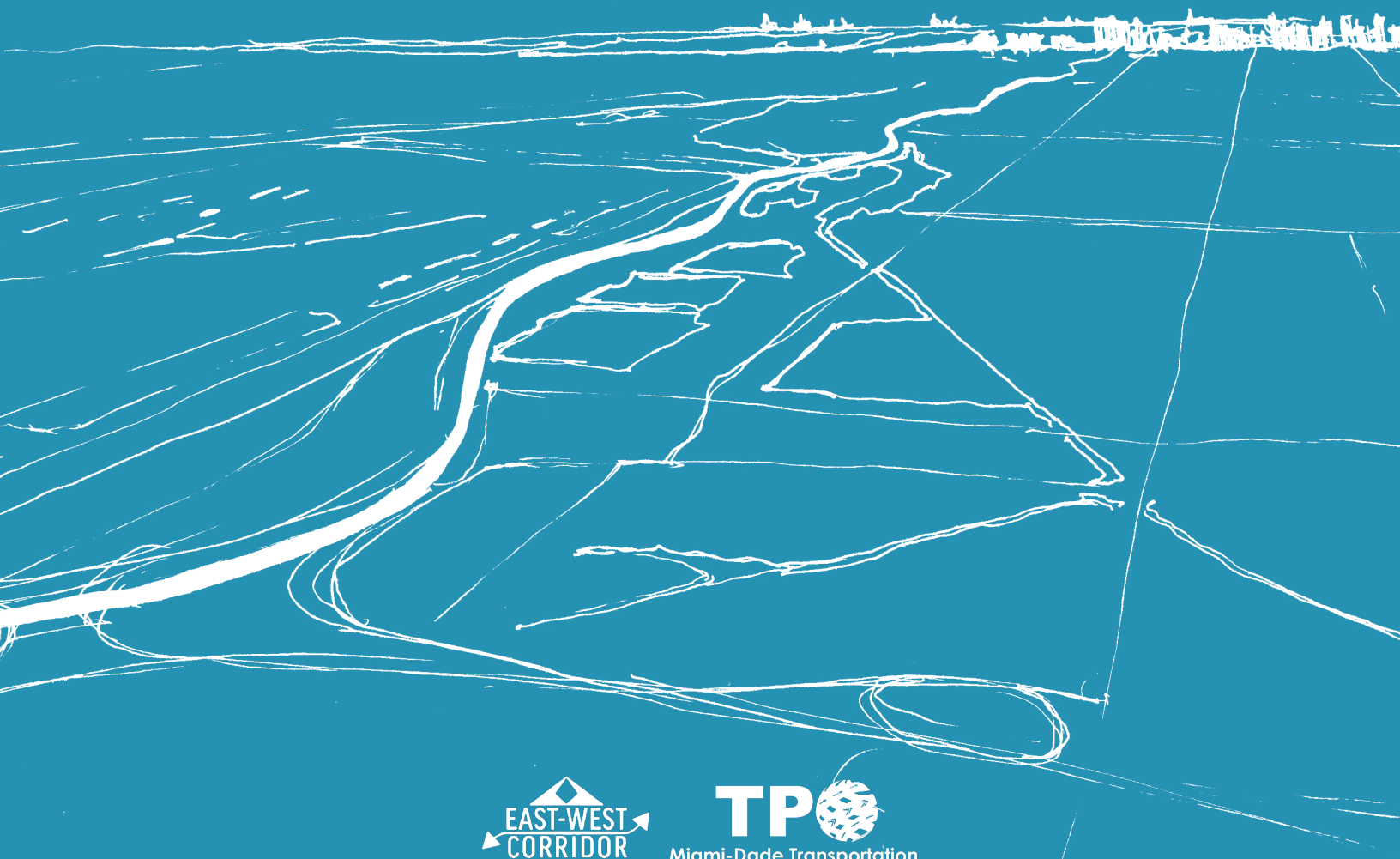
- Model results - Compared Measures of Effectiveness (MOEs) to objectively evaluate the two growth scenarios. Examples of MOEs include:

- Development Infill/Redevelopment
- Vehicle Hours Traveled (VHT)
- Transit Ridership (Boarding/Day)

Appendix B: Charrette Report and Presentation

SMARTPLAN
EASTWEST CORRIDOR

CHARRETTE REPORT DRAFT



EAST-WEST CORRIDOR

TPO
Miami-Dade Transportation Planning Organization

The Miami-Dade TPO complies with the provisions of Title VI of the Civil Rights Act of 1964, which states: No person in the United States shall, on grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. It is also the policy of the Miami-Dade TPO to comply with all of the requirements of the Americans with Disabilities Act (ADA). For materials in accessible format please call 305-375-1888.

The preparation of this report has been financed in part from the U.S. Department of Transportation (USDOT) through the Federal Highway Administration (FHWA) and/or the Federal Transit Administration (FTA), the State Planning and Research Program (Section 505 of Title 23, U.S. Code) and Miami-Dade County, Florida. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

SMARTPLAN
EASTWEST CORRIDOR

CHARRETTE REPORT DRAFT

prepared for:

MIAMI-DADE TRANSPORTATION PLANNING ORGANIZATION

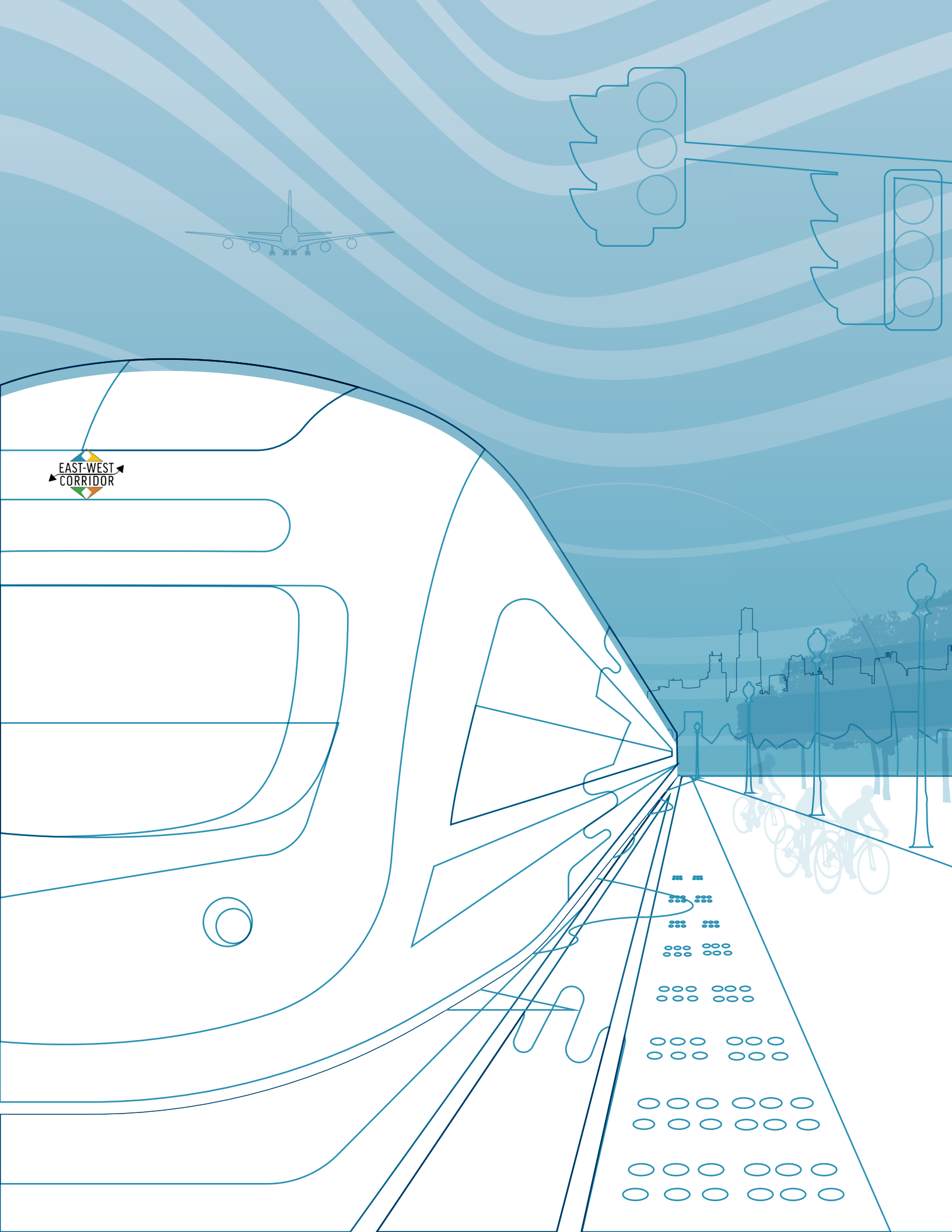
TPO
Miami-Dade Transportation
Planning Organization

prepared by:

ATKINS + PLUSURBIA DESIGN

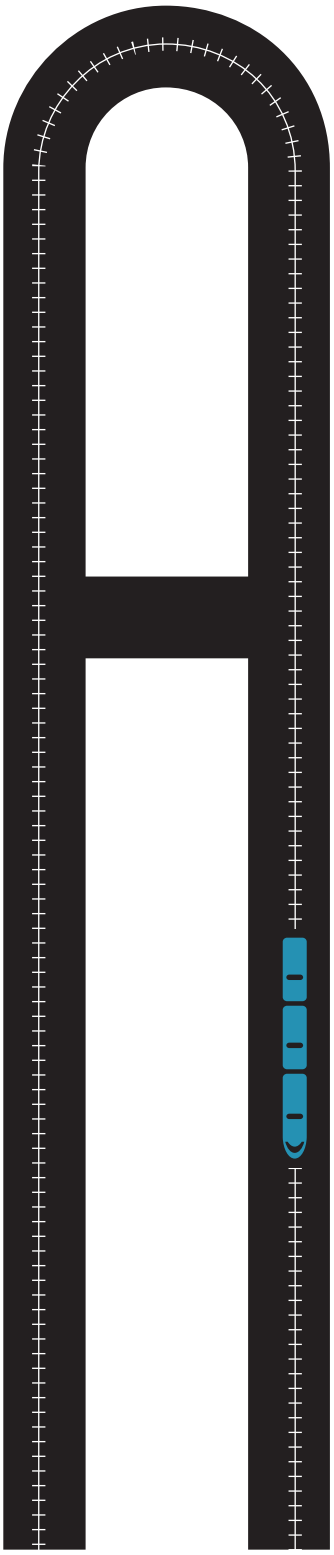
report draft:

FEBRUARY2018


EAST-WEST
CORRIDOR

"[...] **reinvest in our economy** ... trying to find ways to increase transportation and increase our attachment to the city [...]"

- Undergraduate student FIU



n introduction to the SMART Plan

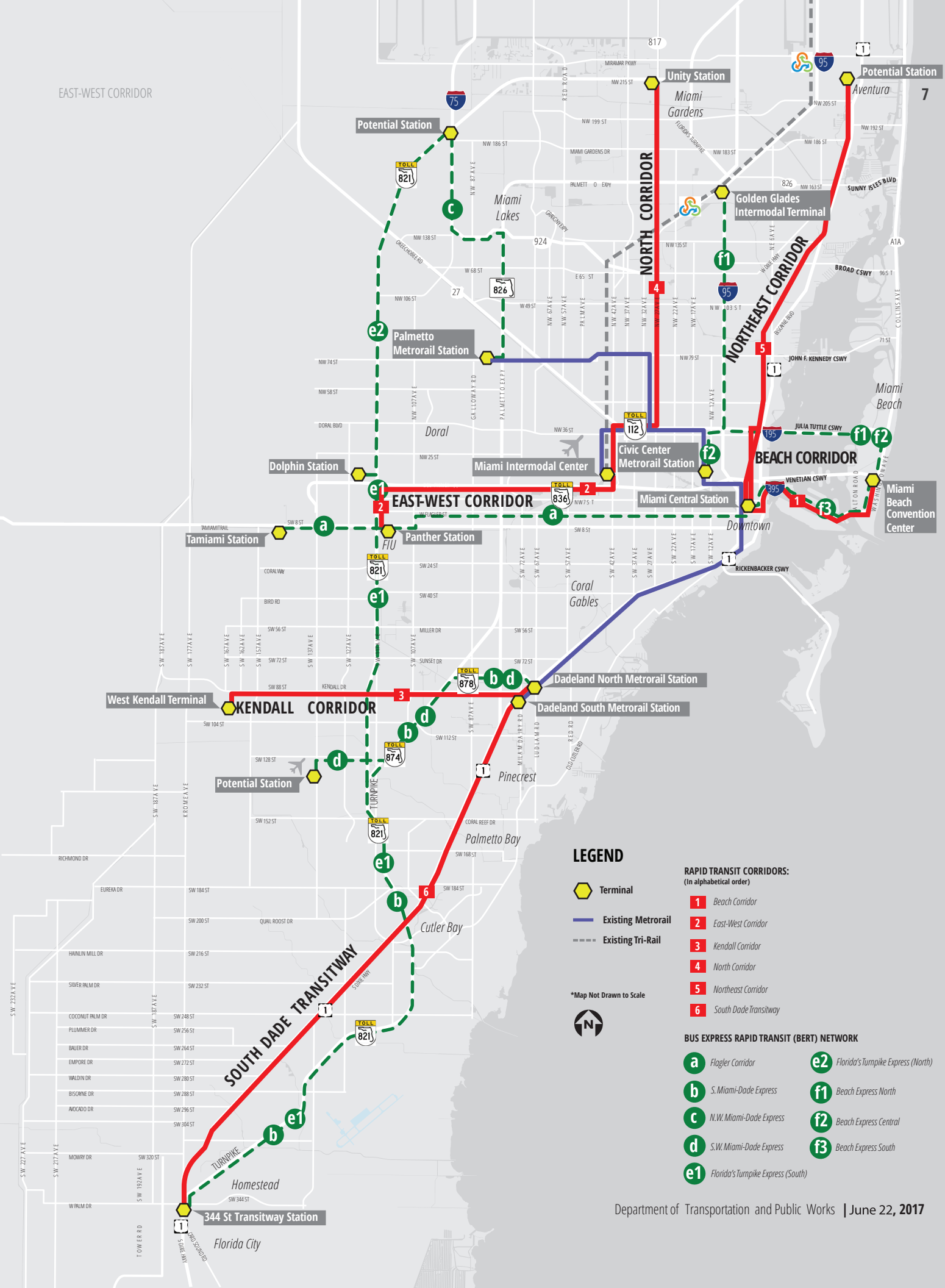
The **Strategic Miami Area Rapid Transit [SMART]** Plan is a bold infrastructure investment program of projects that will significantly improve transportation mobility, and provide a world-class transit system that will support economic growth and competiveness. Miami is a global hub representing not only the Gateway of the America's, but also the nation's southeast capital for international freight and cargo, as well as the number one passenger cruise port in the world.

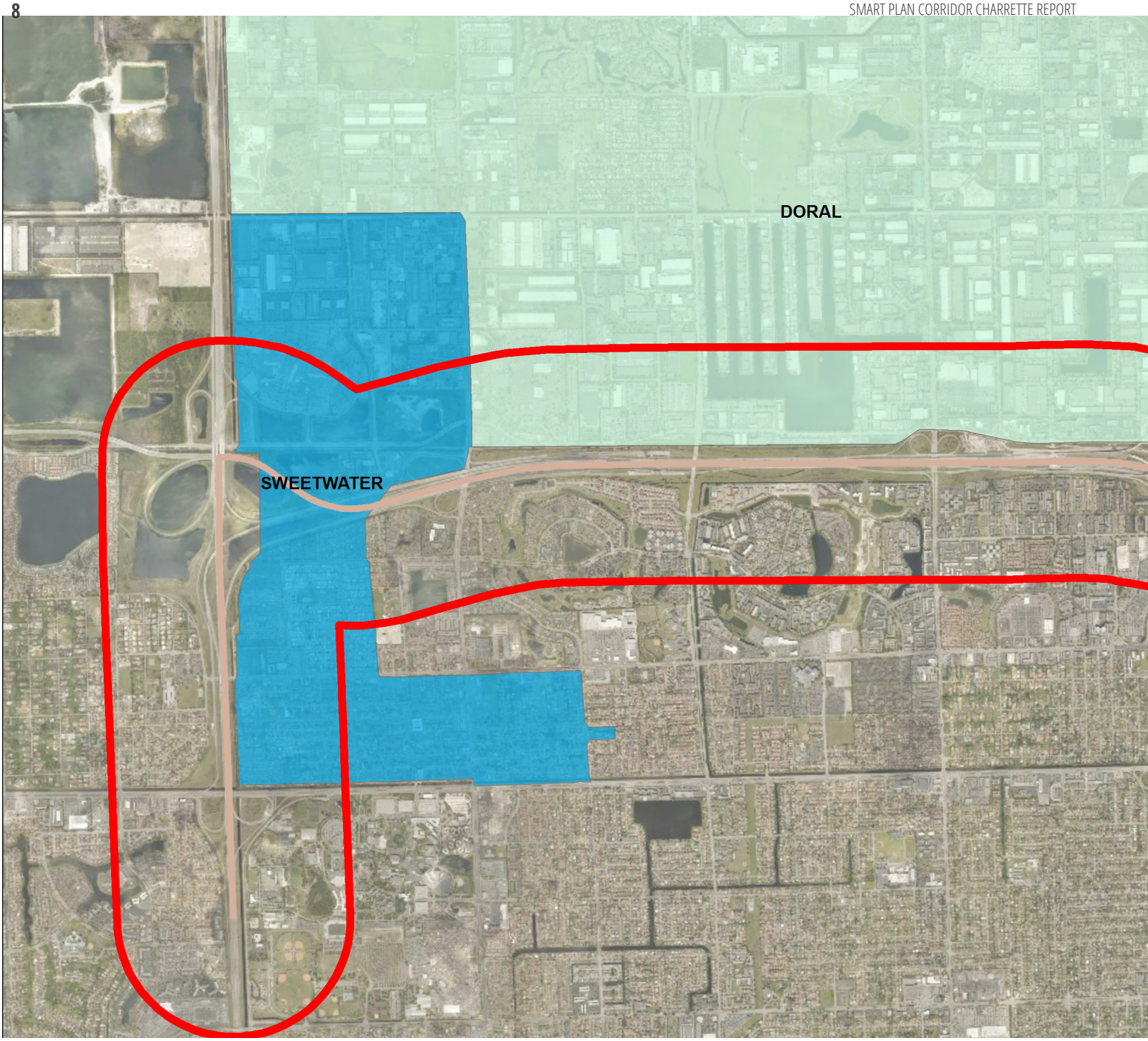
Miami-Dade County is the most populous county in Florida, representing 2.7 million residents, and the Miami Urbanized Area is the 8th most populous in the U.S. with over 6 million people. Miami-Dade Mayor Carlos A. Gimenez, along with the Miami-Dade Transportation Planning Organization (TPO) Governing Board, has declared the advancement of the **SMART Plan** as the top priority for Miami-Dade County, which is strongly supported by public and private sector partners, residents, and other elected officials.

The **SMART Plan** represents a vision for our region that is both strategic and far-reaching, creating a system of multiple transportation options by leveraging existing infrastructure, and integrating technology at the highest levels. The plan is comprehensive, proactive, and supports the future population and employment growth anticipated in our region.

The Federal Highway Administration (FHWA) estimates the annual cost of congestion to motorists in urban areas is approximately $7 billion. This represents a significant cost and economic disadvantage that if not addressed, will result in urban areas like Miami being left behind.

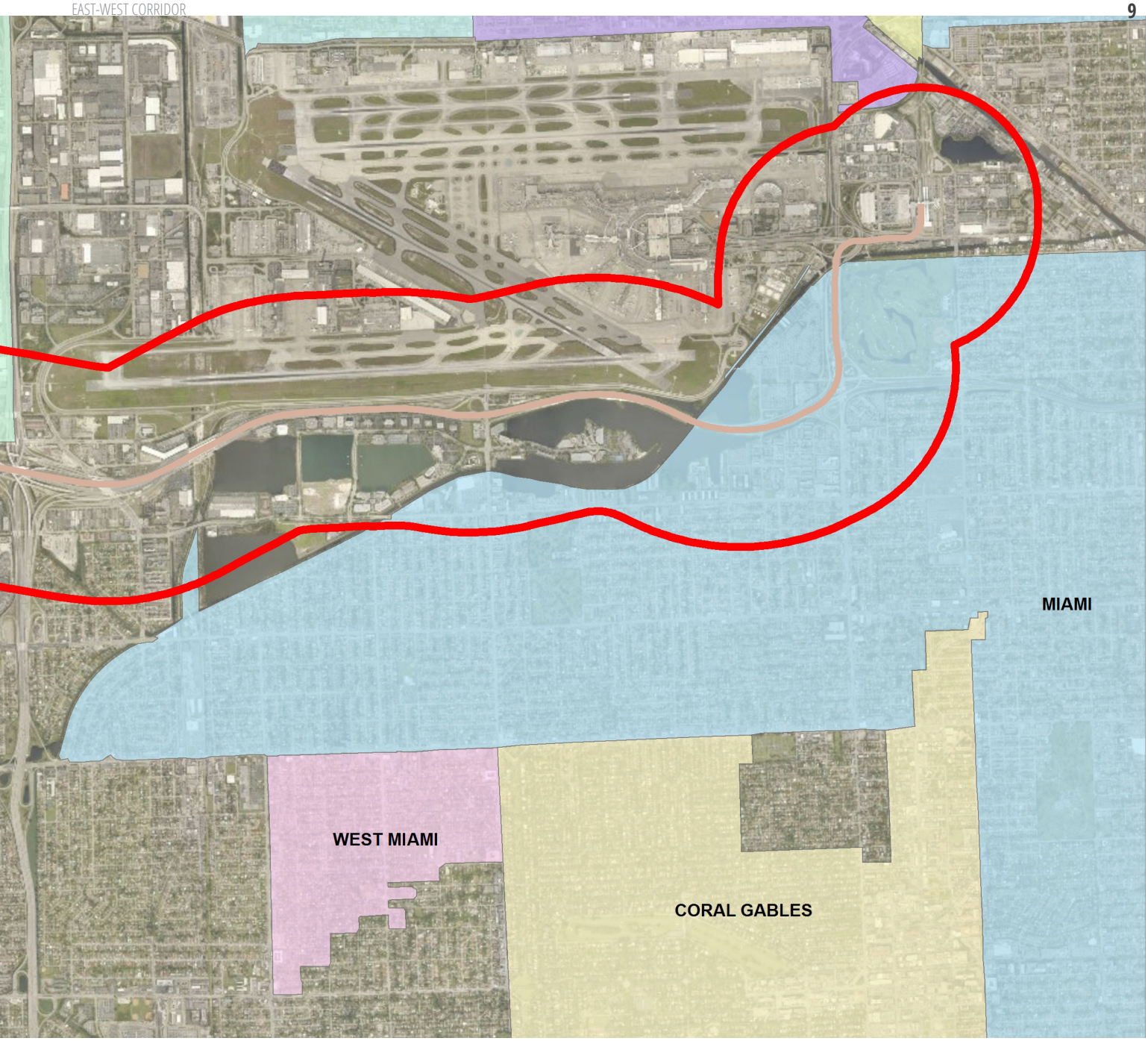
The **SMART Plan** will expand premium transit in Miami-Dade County along six (6) critical corridors that are linked to local, regional, national, and global economic markets, as shown on the adjacent map.


Unity Station
Potential Station
Aventura
Miami Gardens
Potential Station
Miami Lakes
NORTH CORRIDOR
Golden Glades Intermodal Terminal
NORTHEAST CORRIDOR
Palmetto Metrorail Station
JOHN F. KENNEDY CSWY
Miami Beach
Doral
Civic Center Metrorail Station
BEACH CORRIDOR
JULIA TUTTLE CSWY
Dolphin Station
Miami Intermodal Center
EAST-WEST CORRIDOR
Miami Central Station
VENETIAN CSWY
Miami Beach Convention Center
Tamiami Station
FIU
Panther Station
Downtown
RICKENBACKER CSWY
Coral Gables
Dadeland North Metrorail Station
West Kendall Terminal
KENDALL CORRIDOR
Dadeland South Metrorail Station
Potential Station
Pinecrest
Palmetto Bay
Cutler Bay
SOUTH DADE TRANSITWAY
Homestead
344 St Transitway Station
Florida City
LEGEND
Terminal
Existing Metrorail
Existing Tri-Rail
*Map Not Drawn to Scale
RAPID TRANSIT CORRIDORS:
(In alphabetical order)
1 Beach Corridor
2 East-West Corridor
3 Kendall Corridor
4 North Corridor
5 Northeast Corridor
6 South Dade Transitway
BUS EXPRESS RAPID TRANSIT (BERT) NETWORK
a Flagler Corridor
b S. Miami-Dade Express
c N.W. Miami-Dade Express
d S.W. Miami-Dade Express
e1 Florida's Turnpike Express (South)
e2 Florida's Turnpike Express (North)
f1 Beach Express North
f2 Beach Express Central
f3 Beach Express South



East-West Corridor

The SMART Plan is intended to help achieve county and community goals though the integration of transportation land use planning and development of strategies. The Land Use Scenario & Visioning Planning study will provide the technical basis for the development of transit supportive land uses for the East-West Corridor. The East-West Corridor project will provide multimodal solutions for the severe traffic congestion along the only east-west expressway in central Miami-Dade County. The corridor serves major activity centers including FIU, Doral commercial area, Blue Lagoon office park, Miami International Airport, and the Miami Intermodal Center (MIC), as well as serve the Health District and Downtown Miami. The study will identify, through land use scenarios, areas for transit-oriented development and zoning for higher densities. A corridor vision will be developed, considering an array of elements



East-West Corridor overview map (municipalities)

such as transit improvements, station area plans, land use policies, design criteria, economic mobility, accessibility, and quality of life. The Miami-Dade County Department of Transportation and Public Works (DTPW) is coordinating an additional study for the corridor titled the East-West Corridor Rapid Transit Project. This study began in the summer of 2017 and is scheduled to be completed by the fall of 2019. The project elements include data collection, environmental evaluations, public engagement, and engineering analysis. The goals of the project are to: (1) Provide additional transportation options to accommodate increasing population, (2) to provide an alternative to vehicular travel and bus transit service in the most traveled corridor in the County, (3) improve connections to major economic centers, and (4) provide connections to existing regional transit services.

Aerial view: Miami Intermodal Center

Aerial view: Blue Lagoon

Aerial view: Dolphin Expy (836) / Palmetto Expy (826) Intersection

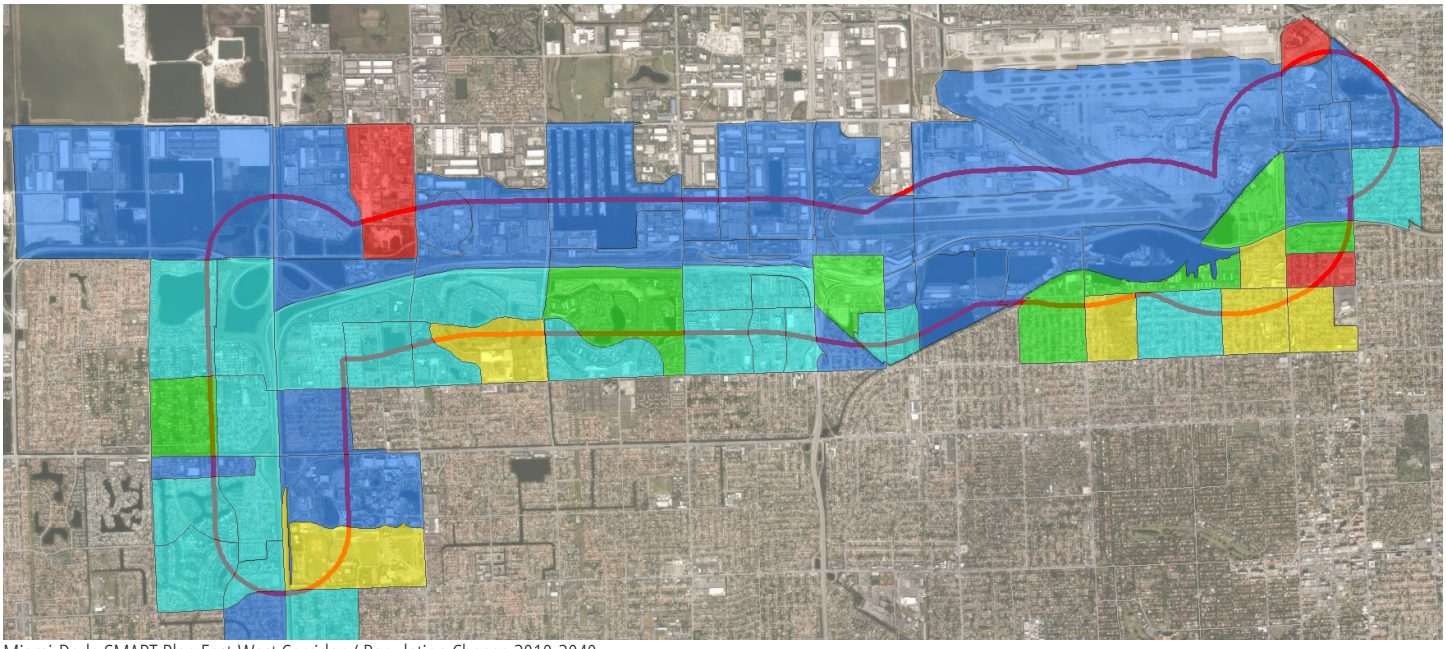
Aerial view: FIU / Sweetwater / Ronald Reagan Turnpike

Corridor Profile

STUDY AREA JURISDICTIONS: The study area spans five municipalities, each with their own set of zoning and land use regulations. The five municipalities are: unincorporated Miami-Dade County, the City of Doral, the City of Miami, the City of Miami Springs, and the City of Sweetwater. A majority of the study area (68%) is unincorporated Miami-Dade County. Additionally, the City of Miami comprises 12% of the study area, the City of Doral 10.5%, the City of Sweetwater 9.5%, and the City of Miami Springs less than 1%.

THE POPULATION: Approximately 118,000 people lived within the corridor in 2015. The median age of residents is 41, with 25% being under 21 and 15% being over 65. The predominant housing types are condominiums and multi-family, with just over 50% of units being owner-occupied. The population of the area is projected to increase by 22% to 144,000 by the year 2040. Major growth areas are expected to be along Le Jeune Road / NW 42nd Avenue south of SR 836, NW 57th Avenue north of Flagler Street, Fontainebleau Boulevard, and NW 107th Avenue north of SR 836.

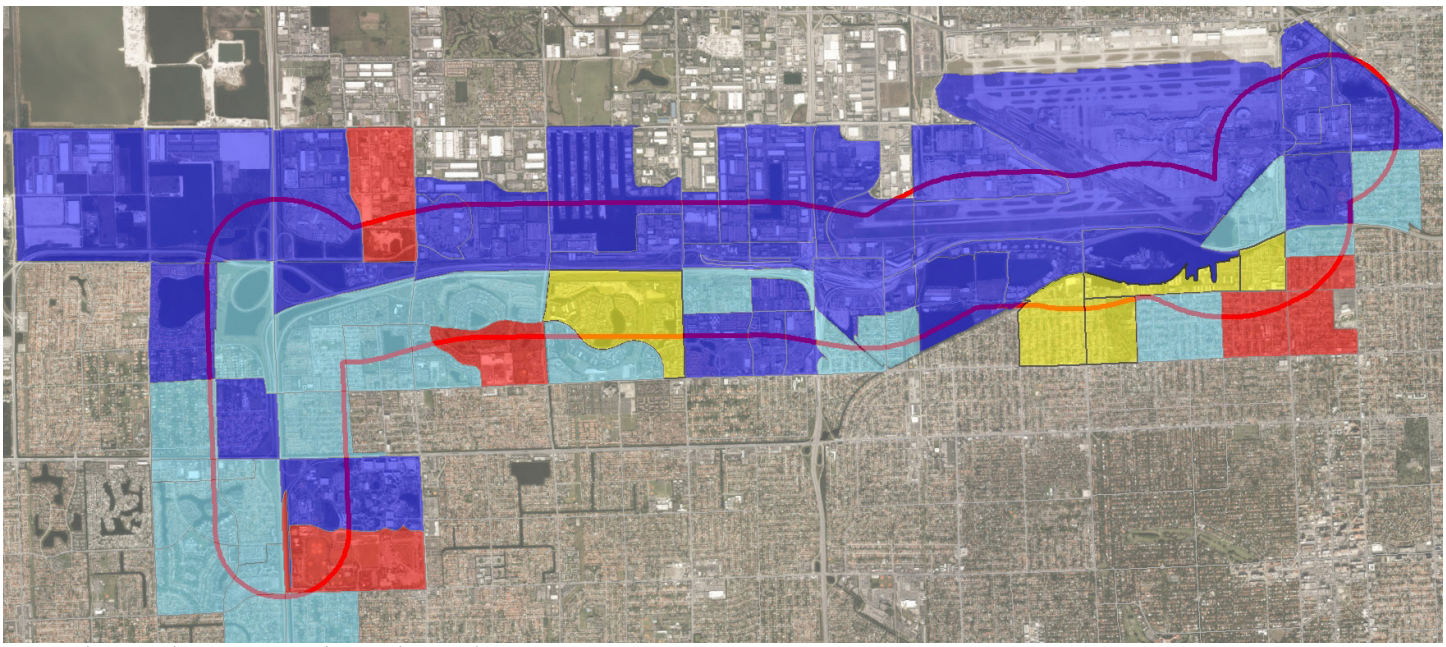
EMPLOYMENT: There are roughly 128,000 jobs along the corridor, providing nearly a 1:1 jobs/population balance. The largest employment sectors are professional/business, retail, transportation, wholesale/warehousing, and government. Employment is projected to grow by 18% to 151,000 jobs by the year 2040. Major activity centers in the corridor include FIU, International & Dolphin Malls, NW 87th Street, Mall of the Americas, Blue Lagoon, and Miami International Airport. Nearby activity centers include downtown Doral and downtown Coral Gables.



Miami-Dade SMART Plan East-West Corridor / Population Change 2010-2040

Legend - Percent Population Change

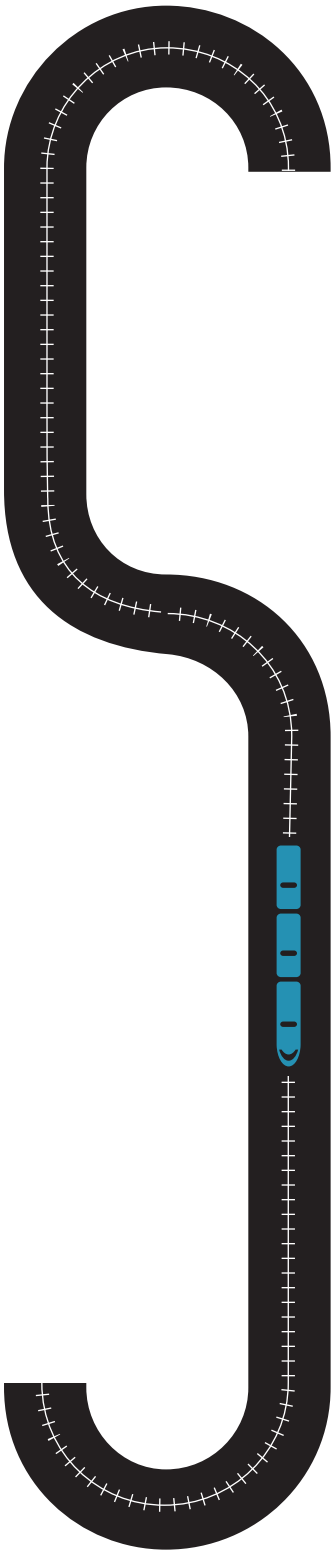
- -2% - 0%
- 0% - 10%
- 10% - 30%
- 30% - 100%
- 100% +
- East-West Corridor 0.5 Mile Buffer



Miami-Dade SMART Plan East-West Corridor / Employment Change 2010-2040

Legend - Employee Percent Change

- < 5%
- 5% - 25%
- 25% - 75%
- 75% +
- East-West Corridor 0.5 Mile Buffer



MART Plan Land Use Scenario and Visioning Planning Charrettes

Transit supportive land use plays a critical role in the success of major rapid transit improvements. The Miami-Dade Transportation Planning Organization (TPO) is now examining this interrelationship to complement the SMART Plan, which is intended to help achieve to help community goals through integrating transportation planning and land use strategies.

Two charrettes were conducted for the East-West Corridor, which runs from the Miami Intermodal Center (MIC) to Florida International University (FIU). Both charrettes included interactive activities where the community started building their land use vision for the corridor.

When + Where?

CHARRETTE 1

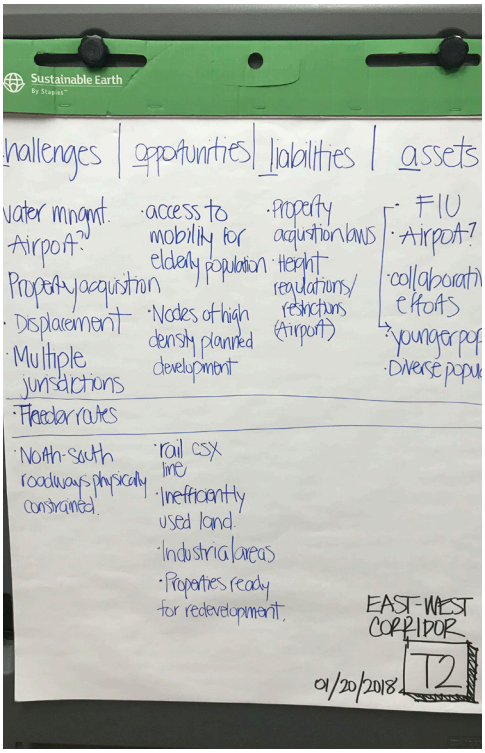
Saturday, January 20, 2018
9:00am-12:00pm
Hilton Garden Inn Dolphin Mall
1695 NW 111th Avenue
Miami, Florida 33172

CHARRETTE 2

Wednesday, January 24, 2018
6:00pm-9:00pm
Hilton Miami Airport
5101 Blue Lagoon Drive
Miami, Florida 33126

Charrette 2: group discussion.

Charrette 2: group discussion.



Charrette 1: table 2 COLA exersize

SMART Plan Land Use Scenario and Visioning Planning Charrettes: COLA exercise main ideas

During the charrette, attendees were invited to "build the corridor." A COLA exercise was conducted first, where they identified Challenges, Opportunities, Liabilities, and Assets in the area. This was followed by locating potential station locations and areas for different development types and intensities. Additional ideas and thoughts were placed on the map using sticky notes.

CHALLENGES

- Water management
- Airport
- Property Acquisition
- Displacement
- Multiple jurisdictions
- Feeder routes
- Lack of north-south roadways due to airport
- North is commercial/industrial while south is primarily residential and 836 creates a physical barrier between the two.
- Underutilized land along the corridor is a challenge but also an opportunity
- Student challenges: grocery shopping
- Residential in South, Industrial and commercial in North, stitch them together
- Demand for industrial is greater than Mixed-Use
- No appeal to walk
- MIC = Hub / not for living
- 836 becomes a barrier for pedestrians
- Unsafe to cross 836
- Most drive everywhere, even to get to everyday-places [supermarket, church, etc...]
- People need to move around in cars to get to everyday-places, this creates a lot of traffic, especially on 97th

OPPORTUNITIES

- Access to mobility for the elderly population
- Nodes of high density planned development
- CSX rail line
- Inefficiently used land
- Industrial areas
- Properties ready for development
- Feeder bus routes
- Future north/south connection on 82nd Ave provides opportunity to create a pedestrian environment where development can happen and benefit from public transit.
- Underutilized land along the corridor is a challenge but also an opportunity
- Station proposed on NW 7th St and Ludlam Trail. Ludlam trail creates opportunity to draw users from the south.
- Connections to Coral Gables on Douglas Road (NW 37th Ave). There is a feeder potential with trolleys already in place.
- Land acquisition
- Travelers from the airport
- Frequent stops/express train
- Sweetwater / Connection to FIU bridge
- Growing City
- Improve on existing development
- Blue Lagoon business development south of 836 [Dolphin Expressway]
- 57th Avenue being developed, this is a good connector to Coral Gables and UM
- Dolphin Mall Area potential for development
- Possible boulevard with bike and pedestrian trails on Fontainebleau Boulevard, connecting all the way to 87th Avenue
- Blue Lagoon Boulevard / Promenade

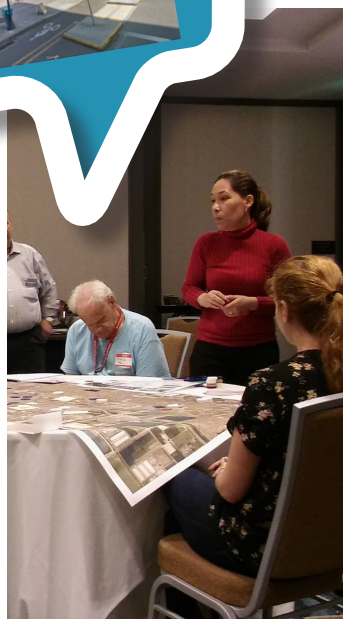
LIABILITIES

- Property acquisition
- Height regulations/restriction by Airport
- Feeder routes
- Cost of setup and operations
- Financial and human resources

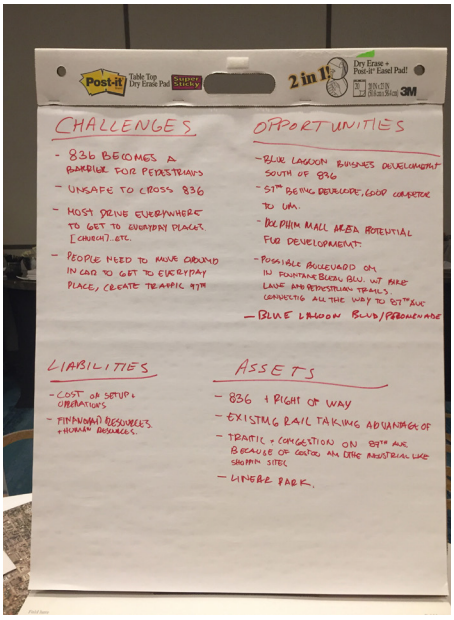
ASSETS

- Florida International University
- Collaborative efforts
- Younger population
- Diverse population
- Feeder routes
- Centers like Ikea, Dolphin Mall and FIU are assets that create opportunities for growth along the corridor
- Malls
- Airport
- Ludlam Trail
- Dolphin Park & Ride
- 836 [Dolphin Expressway] Right of Way
- Take advantage of the existing Rail
- Traffic congestion on 87th Avenue, because of Costco and other industrial like shopping sites
- Linear Park

Charrette 1: table maps.



Charrette 2: table presentation.



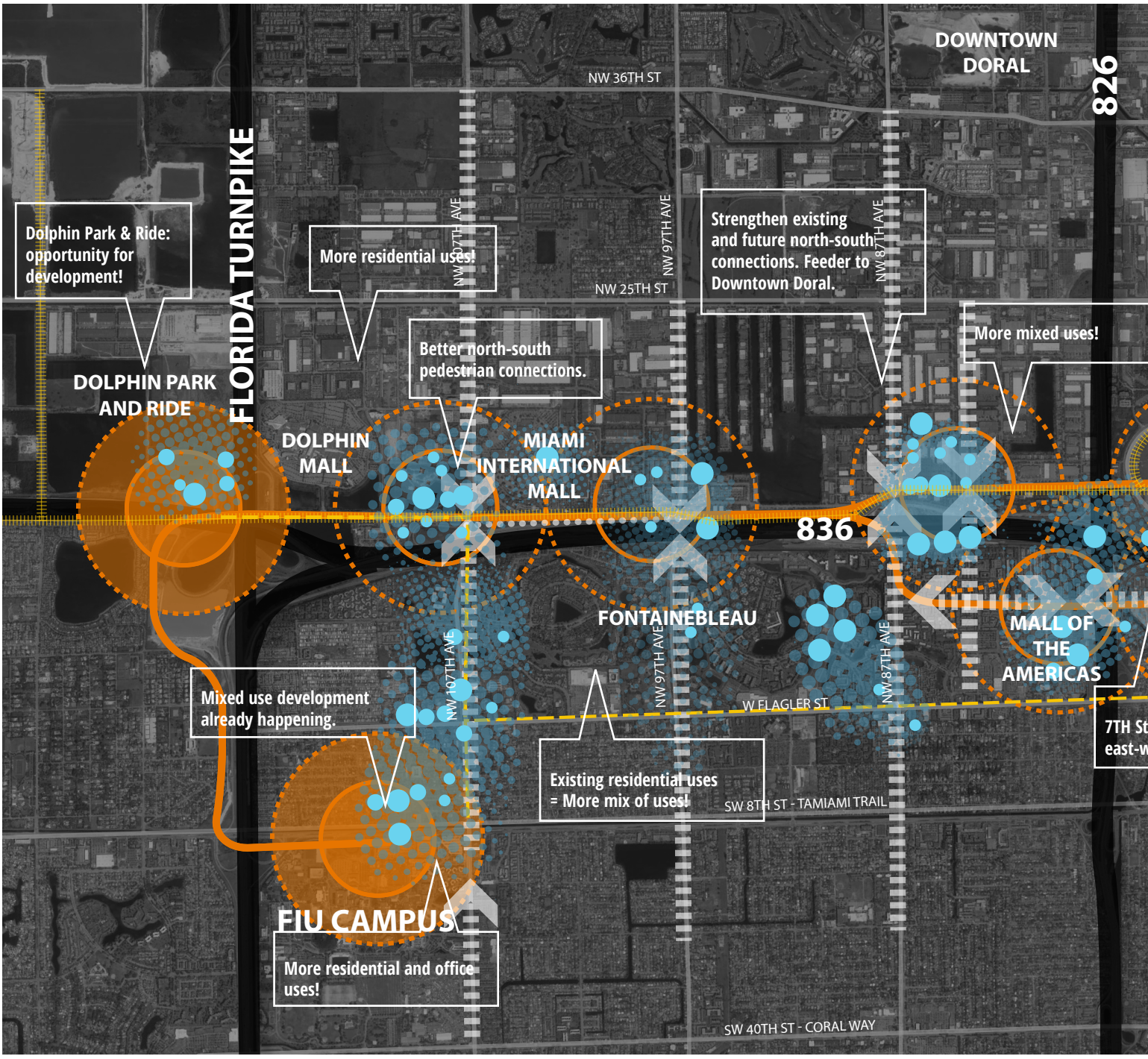
Charrette 2: table 5 COLA excersize.

Charrette 1: group discussion.

Charrette 2: table map.

Charrette 1: group discussion.

East-West Corridor Charrette Summary Map

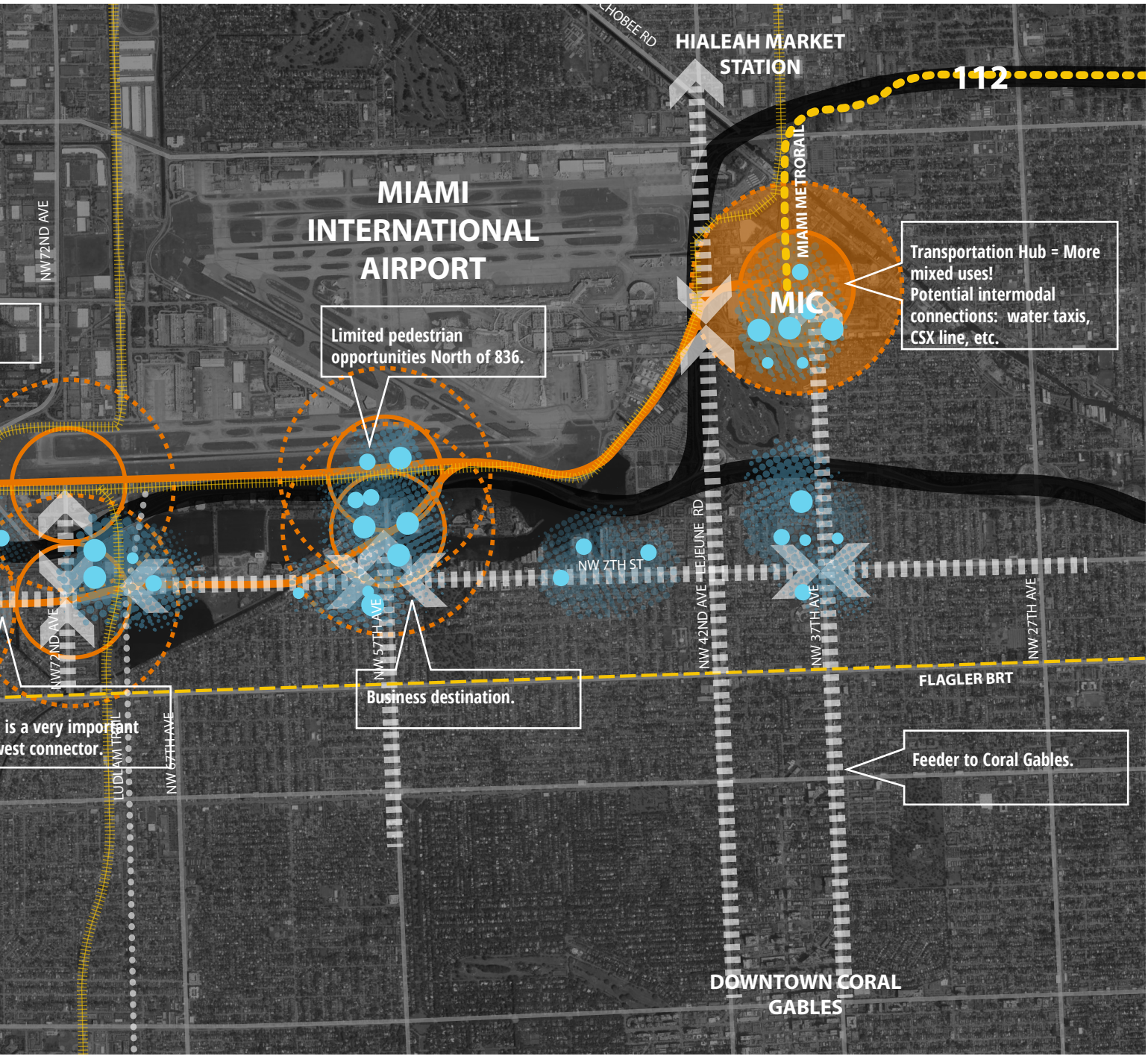


Charrette Master Plan

Legend

- High Intensity Investment Opportunities
- Medium Intensity Investment Opportunities
- Low Intensity Investment Opportunities
- Railroad
- Flagler BRT
- Miami Metrorail
- 1/4 and 1/2 Mile Radiuses
- Feeders

The master plan above summarizes the main ideas from the charrette. The map shows proposed station locations as well as investment opportunities based on low, medium and high intensities. The MIC, Dolphin Park and Ride and FIU Campus Stations were identified as the "anchor" stations in the East-West Corridor.

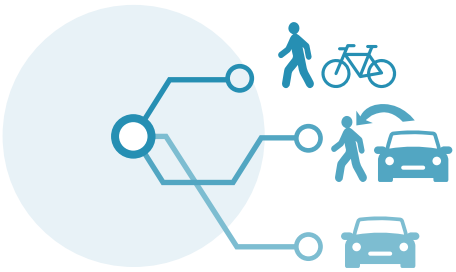


A topic that dominated the conversations during the charrettes was the importance of "feeders" to the proposed station locations in order to increase ridership and connect the stations to important high density locations such as Downtown Coral Gables , Downtown Doral and Sweetwater.

Participants also stressed the importance of breaking the physical barrier from the Dolphin Expressway (836) and the Palmetto Expressway (826) by investing in pedestrian and bicycle friendly north-south and east-west connections. The Ludlam Trail and Kitty Roedel Bike Paths were seen as assets with the possibility of potential expansion. Enhancements through Fountainbleau were also discussed.

harrette Findings

How did you get to the charrette today?



11% rode a bike or walk

30% were dropped off by an autombile

58% drove themselves

How do you think rapid transit in the East-West Corridor would affect housing costs?

53% said costs would increase
19% said costs would decrease
28% said there would be no effect

How do you think rapid transit in the East-West Corridor would affect access to shopping and recreation?

100% said it would provide more access

How do you think rapid transit in the East-West Corridor would affect your access to schools?

70% said it would provide more access
30% said it wouldn't have an effect

Charrette 2: group discussion.

Charrette 1

How did you get to the charrette today?

58% said they drove themselves
30% said they were dropped off by an automobile
11% said they rode a bike or walked

Please rank this image based on your preference on a scale of 1 (low) to 5 (high).

36% ranked it (3)
36% ranked it (4)
28% ranked it (5)

How do you think rapid transit in the East-West Corridor would affect your access to jobs?

92% said it would provide more access
8% said it wouldn't have an effect

How do you think rapid transit in the East-West Corridor would affect your access to shopping and recreation?

100% said it would provide more access

How do you think rapid transit in the East-West Corridor would affect your access to schools?

70% said it would provide more access
30% said it wouldn't have an effect

How do you think rapid transit in the East-West Corridor would affect housing costs?

53% said costs would increase
19% said costs would decrease
28% said there would be no effect

How do you think rapid transit in the East-West Corridor would affect traffic?

78% said it would decrease traffic
22% said it would have no impact

EAST-WEST CORRIDOR

TPO
Miami-Dade Transportation Planning Organization

PLUSURBIA
1385 Coral Way, PH 401 | Miami, FL 33145
info@plusurbia.com | +1 305 444 4850

This document was prepared for:
Miami-Dade Transportation Planning Organization (the Client)

SMART Plan
East-West Corridor Land Use Visioning & Accessibility

Implementation Charrettes

February 2021

Miami-Dade Transportation Planning Organization

Welcome!

Thank you for joining us for our design charrette. We are looking forward to your input this evening. We ask that all participants follow these guidelines:

- This meeting is being recorded.
- Panelists are encouraged to enable their web cameras when speaking.
- Participants will remain muted throughout the meeting.
- There will be interactive polling throughout the presentation.
- If you have a question, please submit it through the Q&A button and we will attempt to address during the presentation.
- To provide input during the brainstorming sessions, please submit comments and ideas through the Chat button.

Click the Chat button in your Zoom toolbar to submit comments and ideas

Click the Q&A button in your Zoom toolbar to submit questions

Miami-Dade Transportation Planning Organization

Presentation Agenda

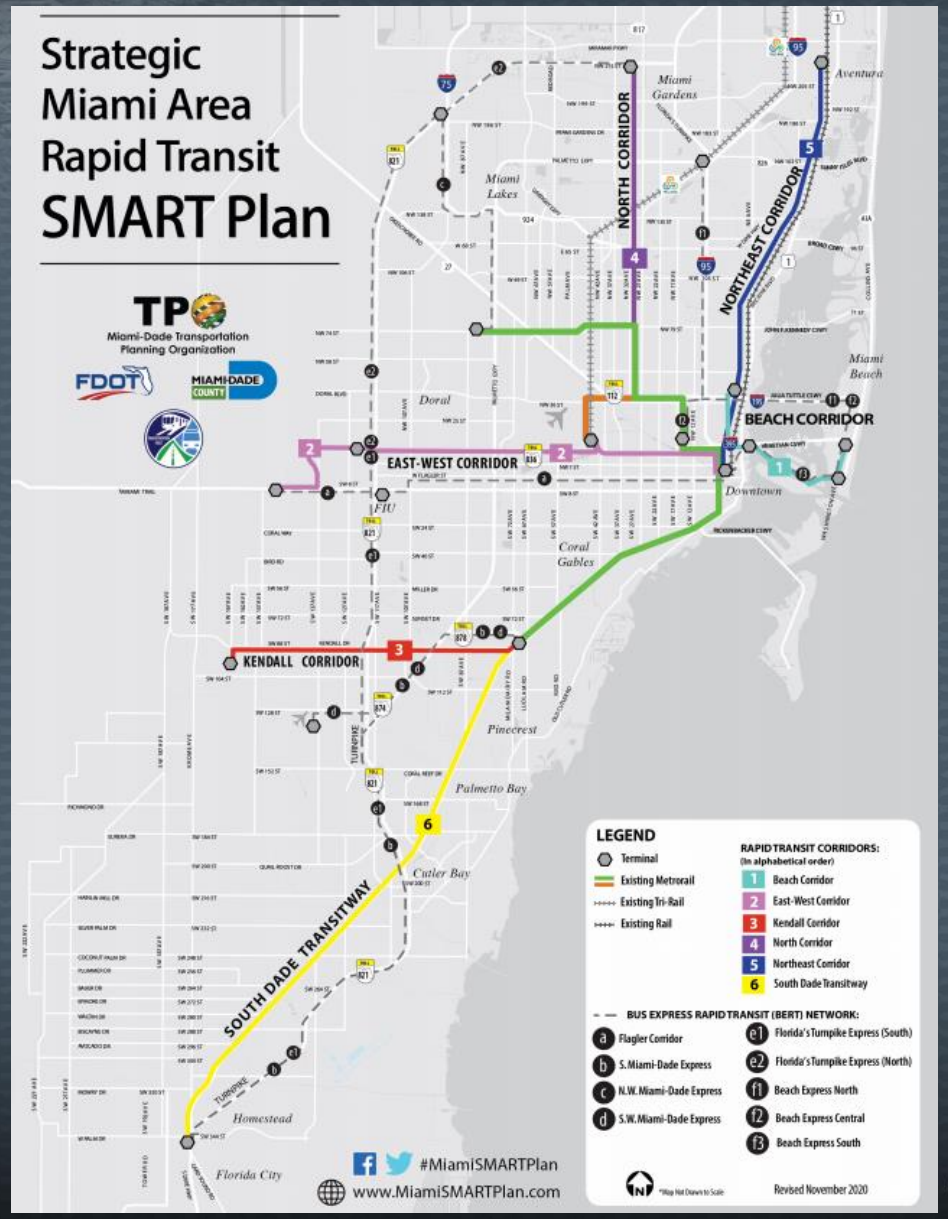
1. Introductions
2. East-West Corridor Project Background
3. Land Use Project Description and Public Input
4. Station Area Accessibility and Public Input

East-West Corridor Project Background

EAST-WEST CORRIDOR

SMART Plan Overview

- Approved by TPO Governing Board in April 2016
- Six rapid transit corridors from People's Transportation Plan
- Eight additional Bus Express Rapid Transit (BERT) Routes
- Efforts conducted by the TPO
  - Land Use Scenario & Visioning
  - Economic Mobility & Accessibility
- Efforts conducted by FDOT / DTPW
  - Rapid Transit Corridor / PD&E



TPO Miami-Dade Transportation Planning Organization

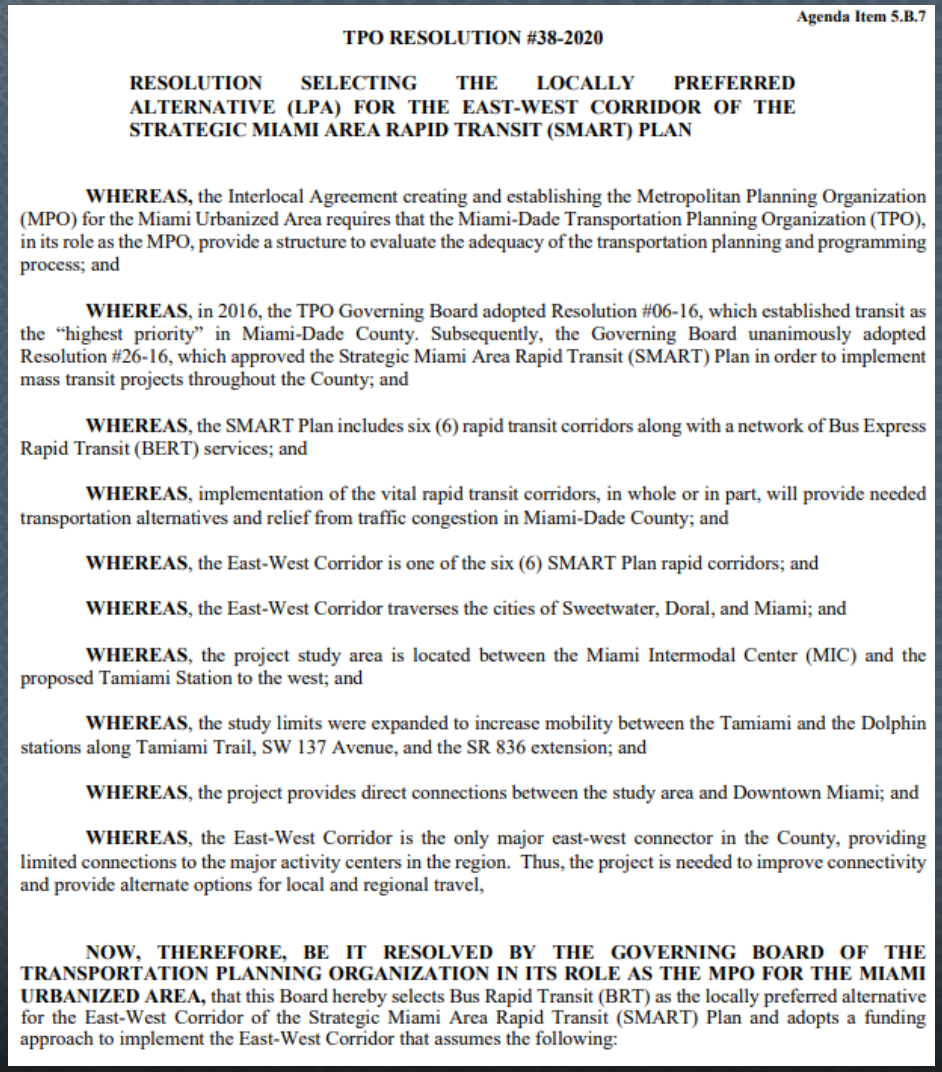
Land Use & Visioning

- TPO is documenting the direct relationship between transit and land use for all six SMART Plan rapid transit corridors
- Data incorporated in federal grant applications
- Promote transit use and increase mobility choices for residents, businesses, and visitors along the corridor

Miami-Dade Transportation Planning Organization

East-West Corridor Locally Preferred Alternative

- The selection of a Locally Preferred Alternative (LPA) represents a critical milestone in the federal transit planning process
- On October 22, 2020 the TPO adopted Bus Rapid Transit as the LPA for the East-West Corridor
- Provides technical basis for development of transit supportive land uses along the East-West Corridor



Agenda Item 5.B.7

TPO RESOLUTION #38-2020

RESOLUTION SELECTING THE LOCALLY PREFERRED ALTERNATIVE (LPA) FOR THE EAST-WEST CORRIDOR OF THE STRATEGIC MIAMI AREA RAPID TRANSIT (SMART) PLAN

WHEREAS, the Interlocal Agreement creating and establishing the Metropolitan Planning Organization (MPO) for the Miami Urbanized Area requires that the Miami-Dade Transportation Planning Organization (TPO), in its role as the MPO, provide a structure to evaluate the adequacy of the transportation planning and programming process; and

WHEREAS, in 2016, the TPO Governing Board adopted Resolution #06-16, which established transit as the "highest priority" in Miami-Dade County. Subsequently, the Governing Board unanimously adopted Resolution #26-16, which approved the Strategic Miami Area Rapid Transit (SMART) Plan in order to implement mass transit projects throughout the County; and

WHEREAS, the SMART Plan includes six (6) rapid transit corridors along with a network of Bus Express Rapid Transit (BERT) services; and

WHEREAS, implementation of the vital rapid transit corridors, in whole or in part, will provide needed transportation alternatives and relief from traffic congestion in Miami-Dade County; and

WHEREAS, the East-West Corridor is one of the six (6) SMART Plan rapid corridors; and

WHEREAS, the East-West Corridor traverses the cities of Sweetwater, Doral, and Miami; and

WHEREAS, the project study area is located between the Miami Intermodal Center (MIC) and the proposed Tamiami Station to the west; and

WHEREAS, the study limits were expanded to increase mobility between the Tamiami and the Dolphin stations along Tamiami Trail, SW 137 Avenue, and the SR 836 extension; and

WHEREAS, the project provides direct connections between the study area and Downtown Miami; and

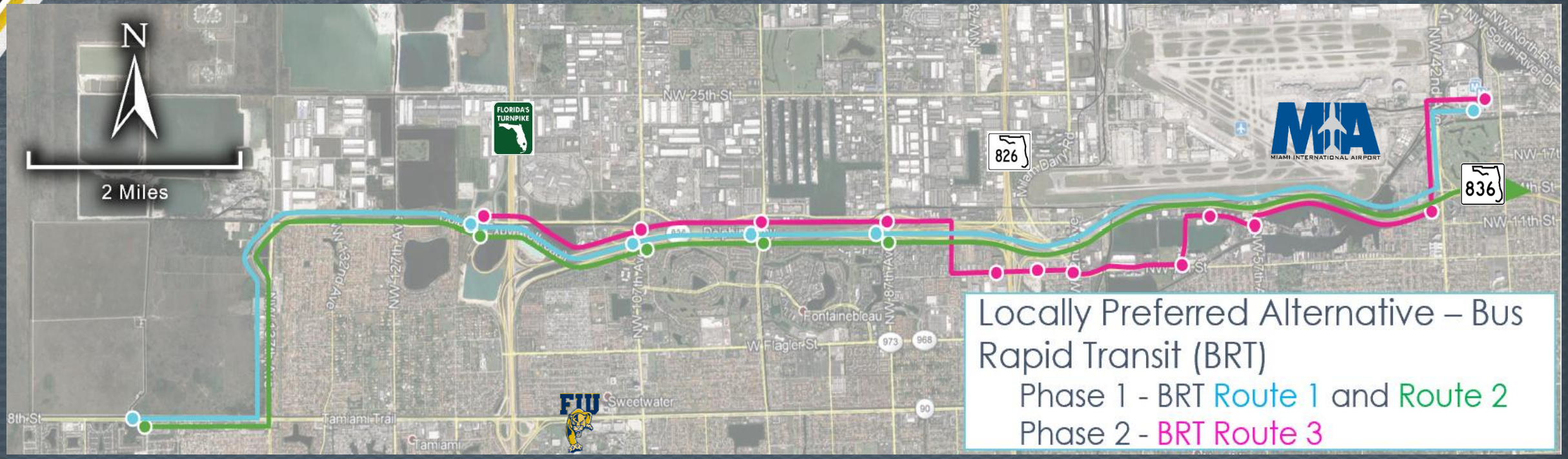
WHEREAS, the East-West Corridor is the only major east-west connector in the County, providing limited connections to the major activity centers in the region. Thus, the project is needed to improve connectivity and provide alternate options for local and regional travel,

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BOARD OF THE TRANSPORTATION PLANNING ORGANIZATION IN ITS ROLE AS THE MPO FOR THE MIAMI URBANIZED AREA, that this Board hereby selects Bus Rapid Transit (BRT) as the locally preferred alternative for the East-West Corridor of the Strategic Miami Area Rapid Transit (SMART) Plan and adopts a funding approach to implement the East-West Corridor that assumes the following:

Miami-Dade Transportation Planning Organization

Corridor Map

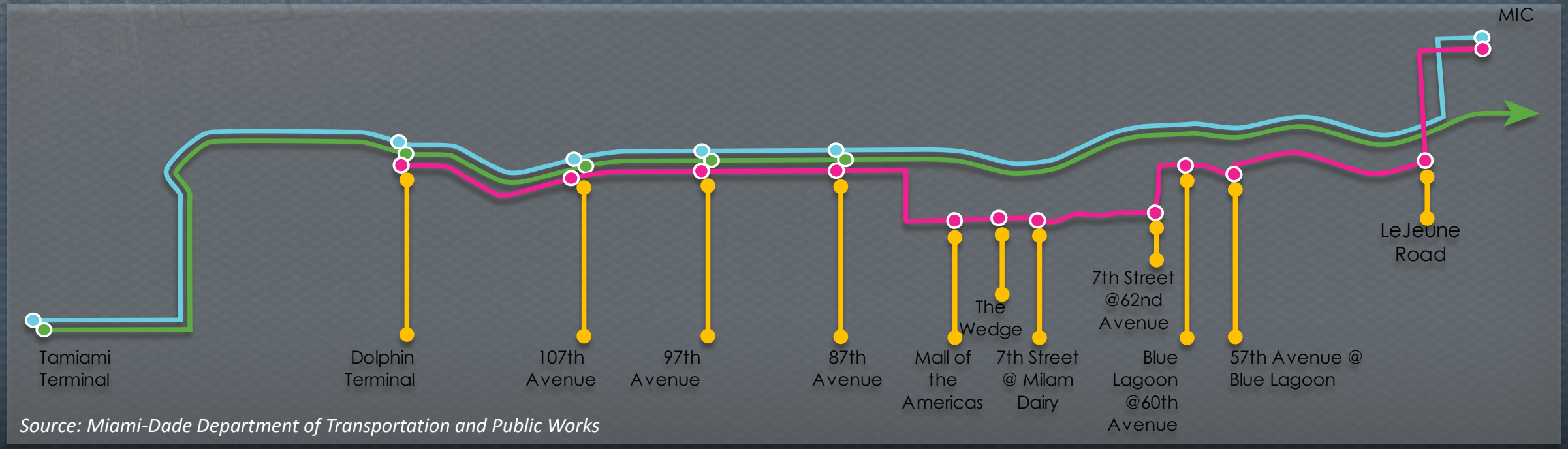
Project Limits – Miami Intermodal Center to Tamiami Terminal



- 13 stations proposed over 16 miles (between MIC and Tamiami Terminal)
- Initial implementation phase follows SR 836 corridor – with some service extending to downtown
- Second implementation phase provides service on 7th Street and through Blue Lagoon

Locally Preferred Alternative – Bus Rapid Transit

- Dedicated Bus-on-Shoulder on SR 836 Extension
- Center stations on SR 836 at 107th, 97th, and 87th Avenue
- Dedicated transit only lanes on NW 7th Street from Mall of the Americas to NW 62nd Avenue



Source: Miami-Dade Department of Transportation and Public Works

Miami-Dade Transportation Planning Organization

Vision of 87th Avenue Station

Source: Miami-Dade Department of Transportation and Public Works

EAST-WEST CORRIDOR

Vision of 7th Street at Milam Dairy Station

Source: Miami-Dade Department of Transportation and Public Works

TPO Miami-Dade Transportation Planning Organization

Audience Poll

How did you hear about the meeting today?

1. Flyer
2. Newspaper
3. E-mail
4. Internet or Social Media
5. Word of Mouth

Audience Poll

Were you familiar with the Strategic Miami Area Rapid Transit (SMART) Plan before this meeting?

1. Yes
2. No
3. Somewhat

Audience Poll

How do you use the East-West Corridor?

1. Live on or near corridor
2. Work / attend school on or near corridor
3. Live and work / attend school on or near corridor
4. Travel corridor regularly
5. Travel corridor occasionally / other

Audience Poll

How do you think rapid transit service along the East-West Corridor affects traffic?

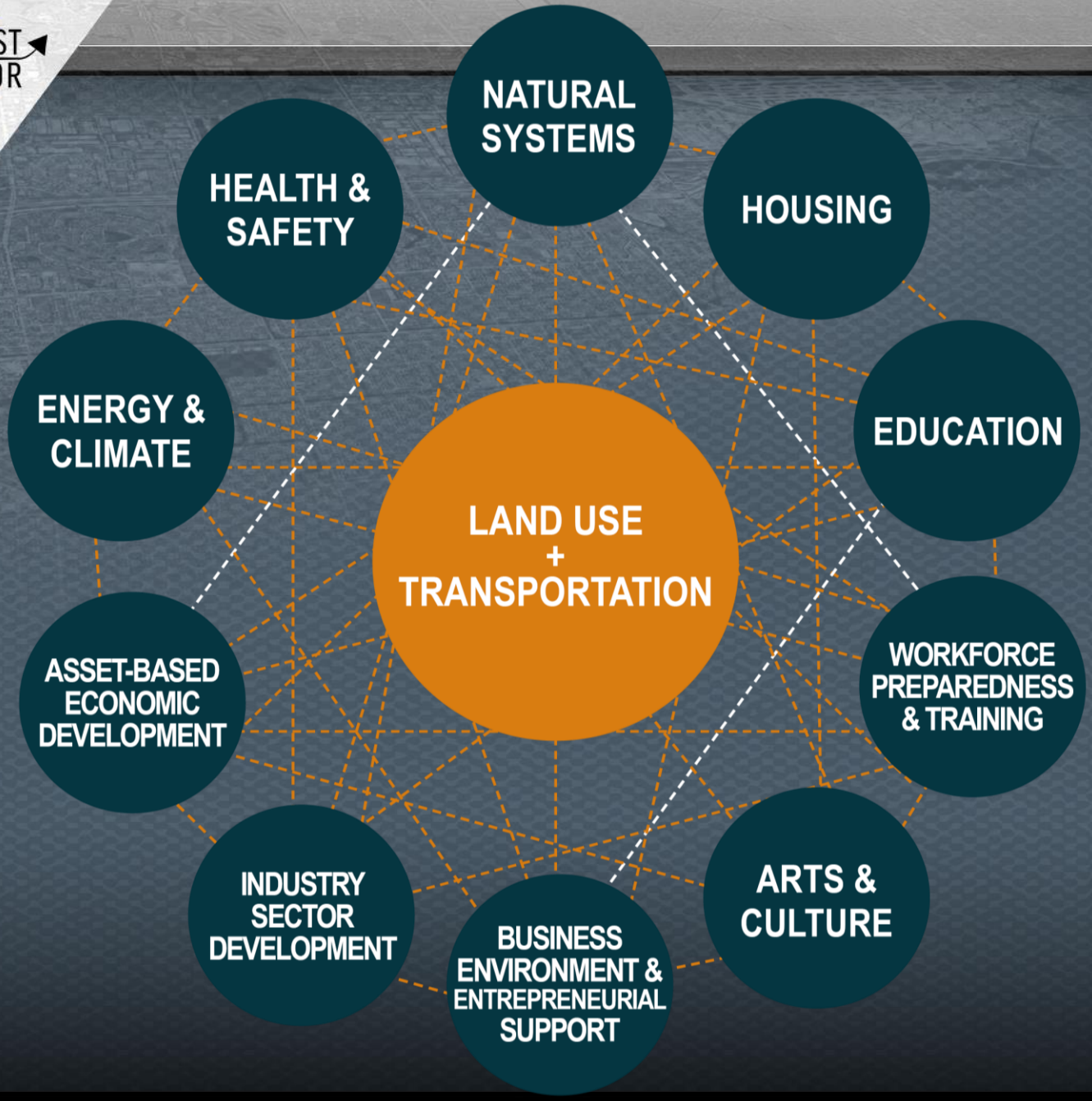
1. Increase traffic
2. Decrease traffic
3. No impact

Audience Poll

How do you think rapid transit service along the East-West Corridor affects housing costs?

1. Costs will increase
2. Costs will decrease
3. No effect

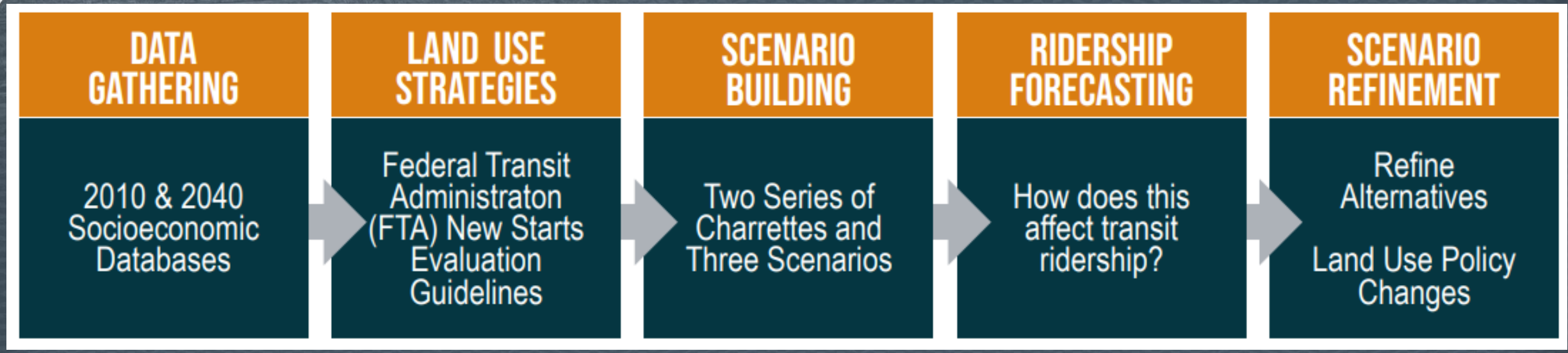
Land Use Project Description and Public Input



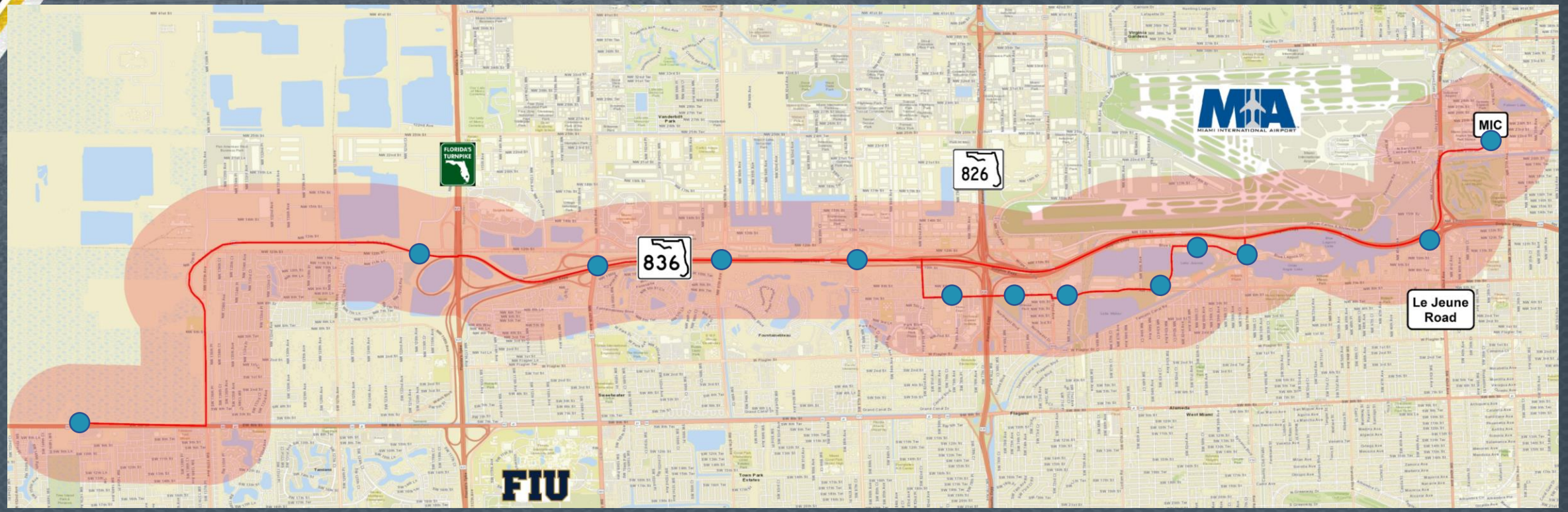
Land Use and Transportation Integration

TPO Miami-Dade Transportation Planning Organization

Land Use Scenario Planning Process



Land Use & Visioning Project Area



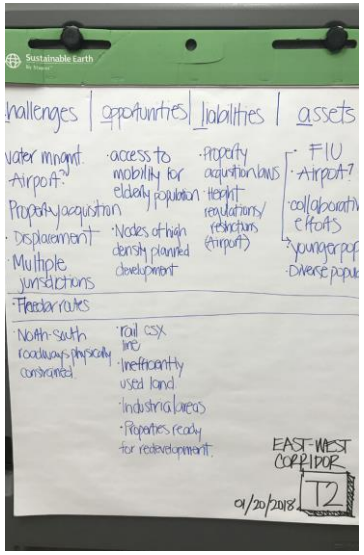
- Project area extends ½ mile in all directions around transit corridor
- Potential growth will be focused near proposed stations
- Some areas not suitable / permissible for development
  (i.e., outside Urban Development Boundary, MIA grounds)

Miami-Dade Transportation Planning Organization

EAST-WEST CORRIDOR

Charrette 2: group discussion.

Charrette 2: group discussion.



Charrette 1: table 2 COLA exersize

First Charrette Series

January 2018

> "...reinvest in our economy...trying to find ways to increase transportation and increase our attachment to the city..."
>
> **- FIU Undergraduate Student**

TPO Miami-Dade Transportation Planning Organization

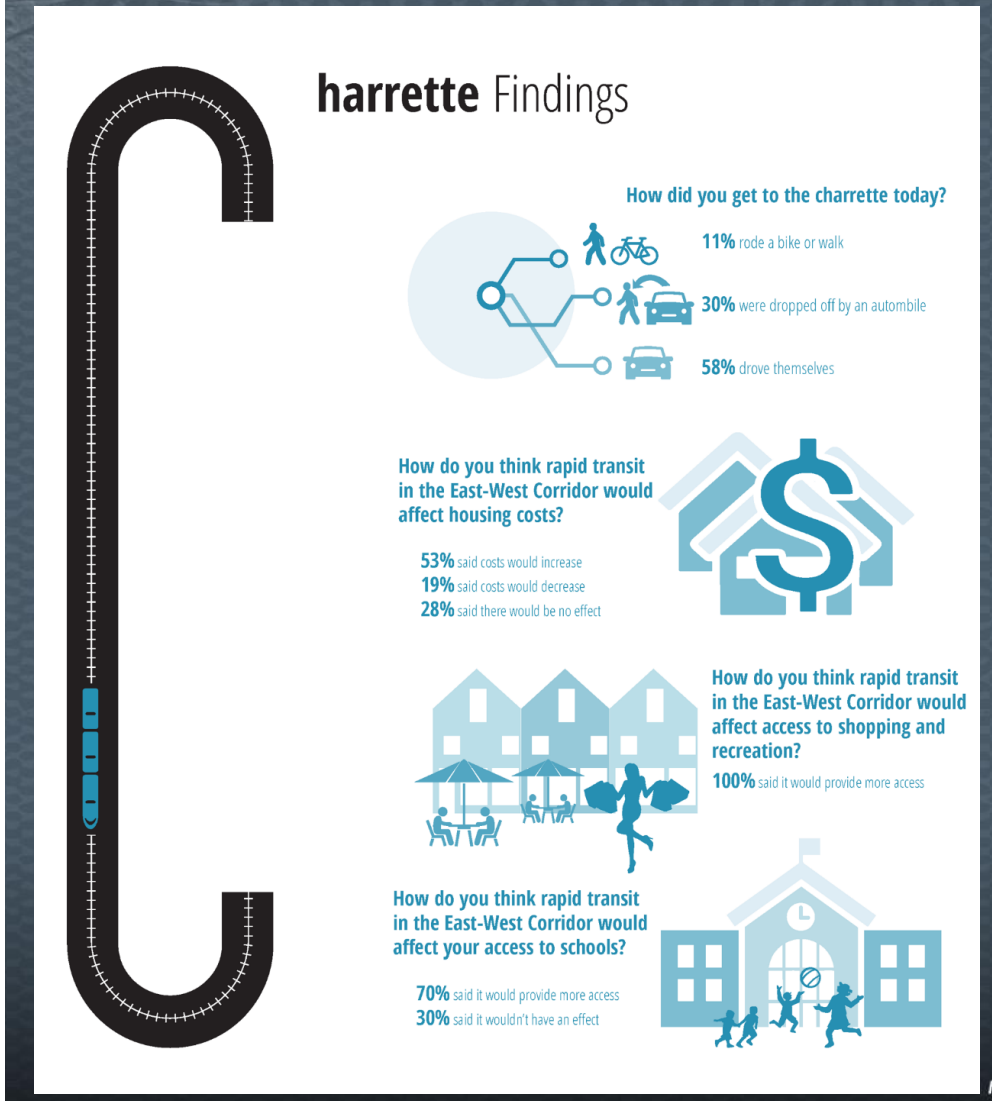
Charrette Brainstorming

CHALLENGES

OPPORTUNITIES

LIABILITIES

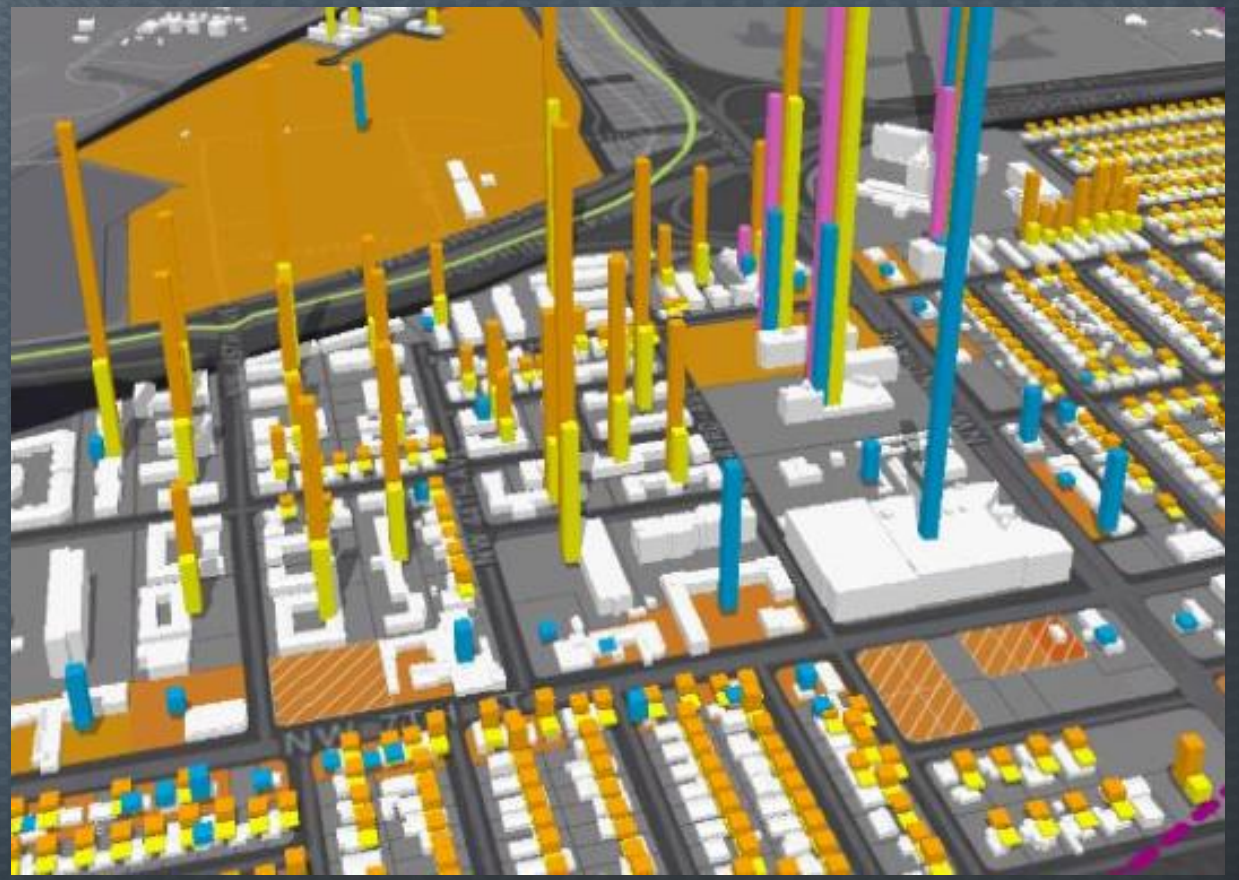
ASSETS



Miami-Dade Transportation Planning Organization

2040 Land Use Scenario Development

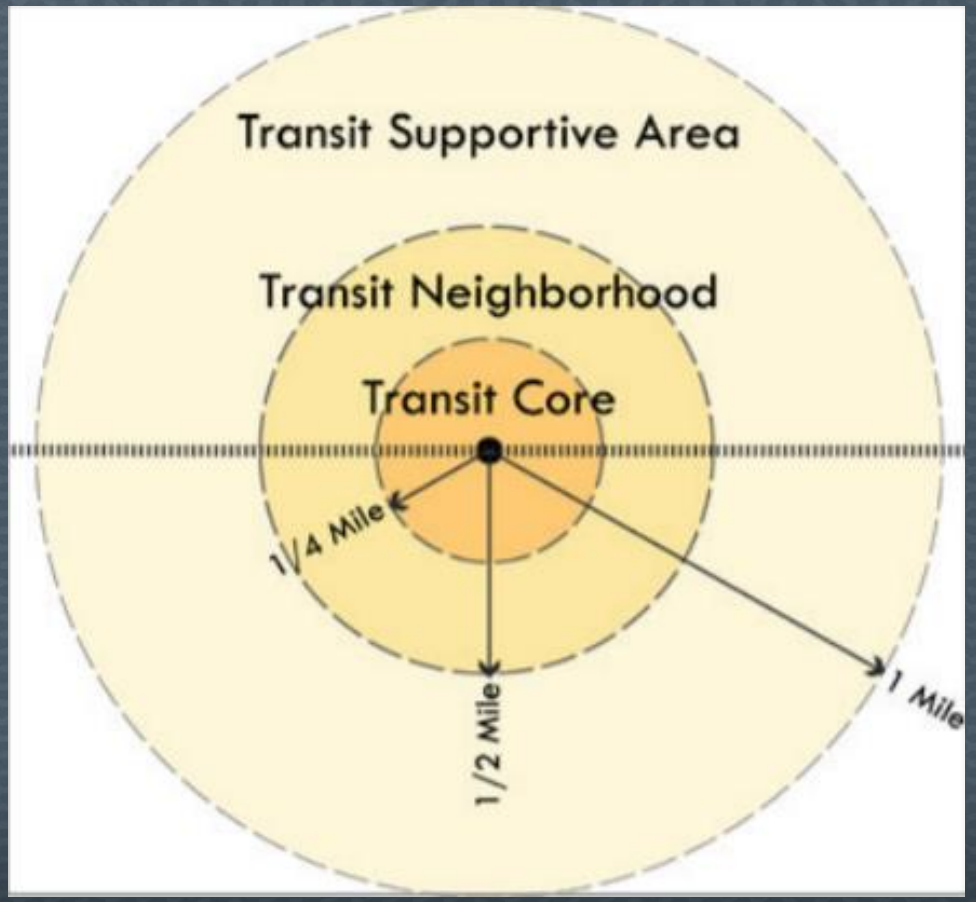
- Population in corridor projected to grow naturally to 93,000 (+20%)
- Employment in corridor projected to grow naturally to 96,000 (+40%)
- Land use scenarios developed to support alternatives evaluated in Rapid Transit Corridor Study
- Obtain public input on scenario developed in support of the LPA – Bus Rapid Transit



What Transit Oriented Communities (TOC) Look Like

- Moderate to high density areas near transit stations
- Urban form oriented to promote walking to stations and other land uses within station areas

One-half mile radius represents a 10-minute walk – the max. distance people are generally willing to walk to a destination



Source: A Framework for TOD in Florida

Transit-Oriented Corridor Example

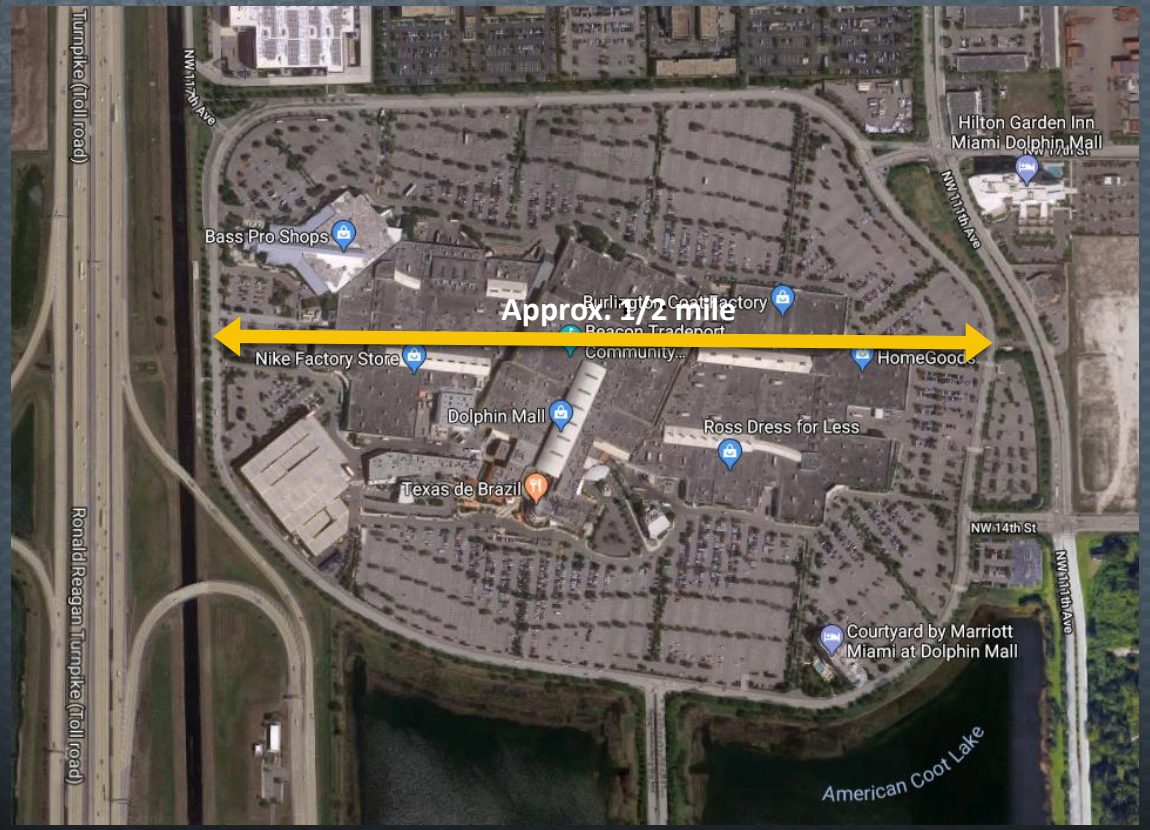
Existing Activity Centers

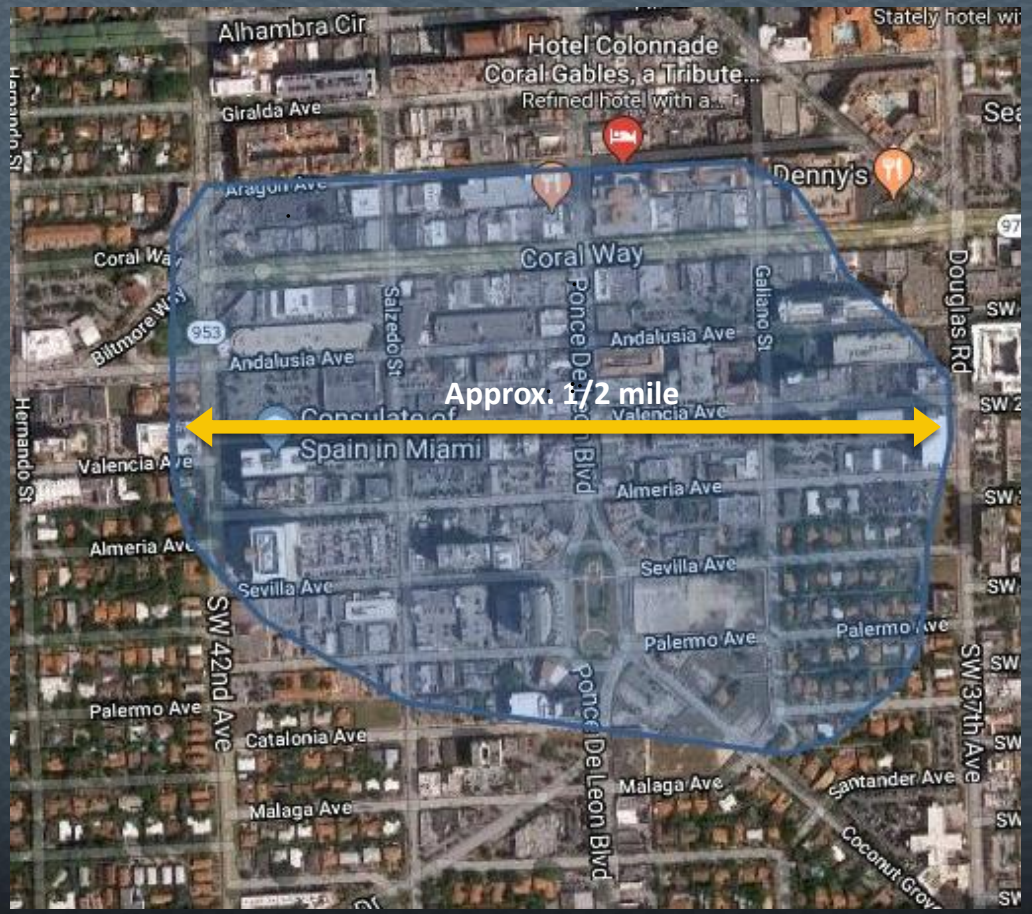
- Airport / MIC Area
- Blue Lagoon Area
- Corporate Center Drive Area
- Mall of the Americas Area
- NW 87th Avenue Area
- International & Dolphin Malls Area
- Off-Corridor
  - FIU
  - Downtown Doral
  - Downtown Coral Gables
  - Hialeah Market

EAST-WEST CORRIDOR

Understanding Scale

- Dolphin Mall footprint overlaid on downtown Coral Gables

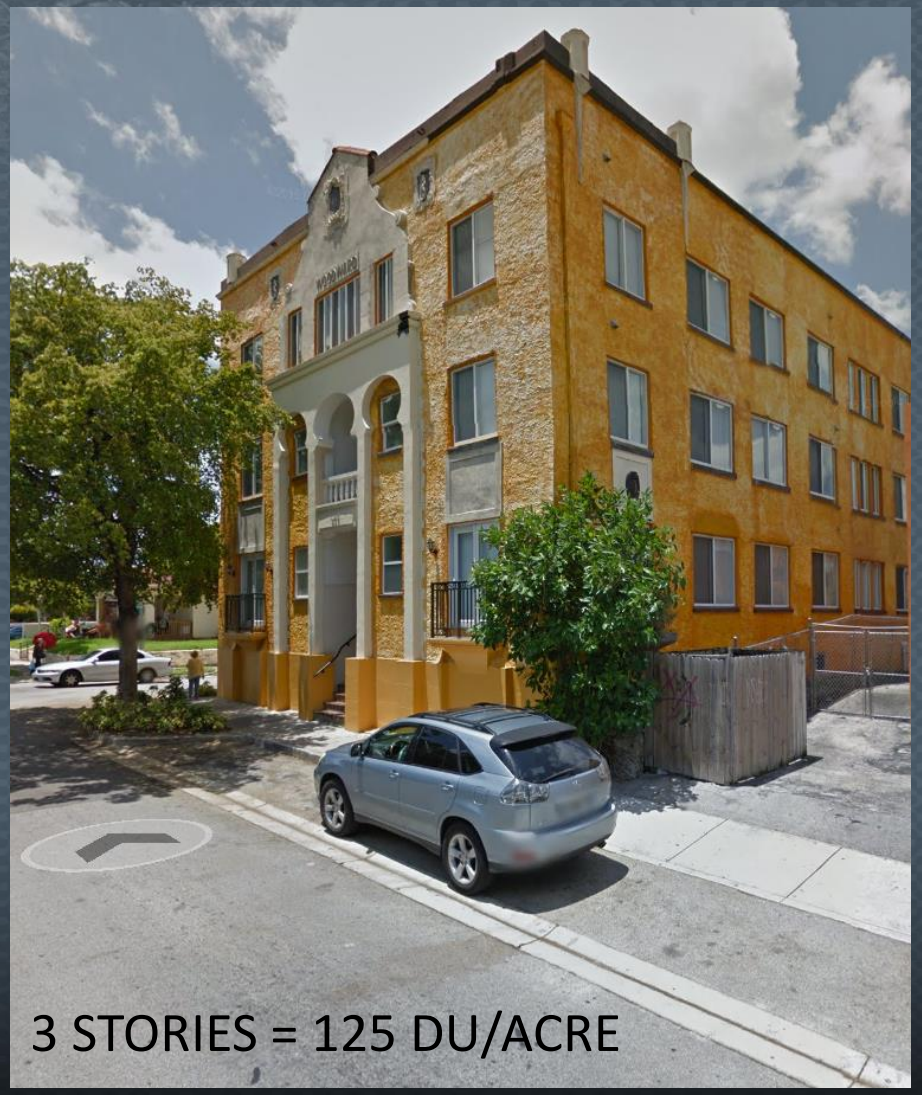




Miami-Dade Transportation Planning Organization

Understanding Density

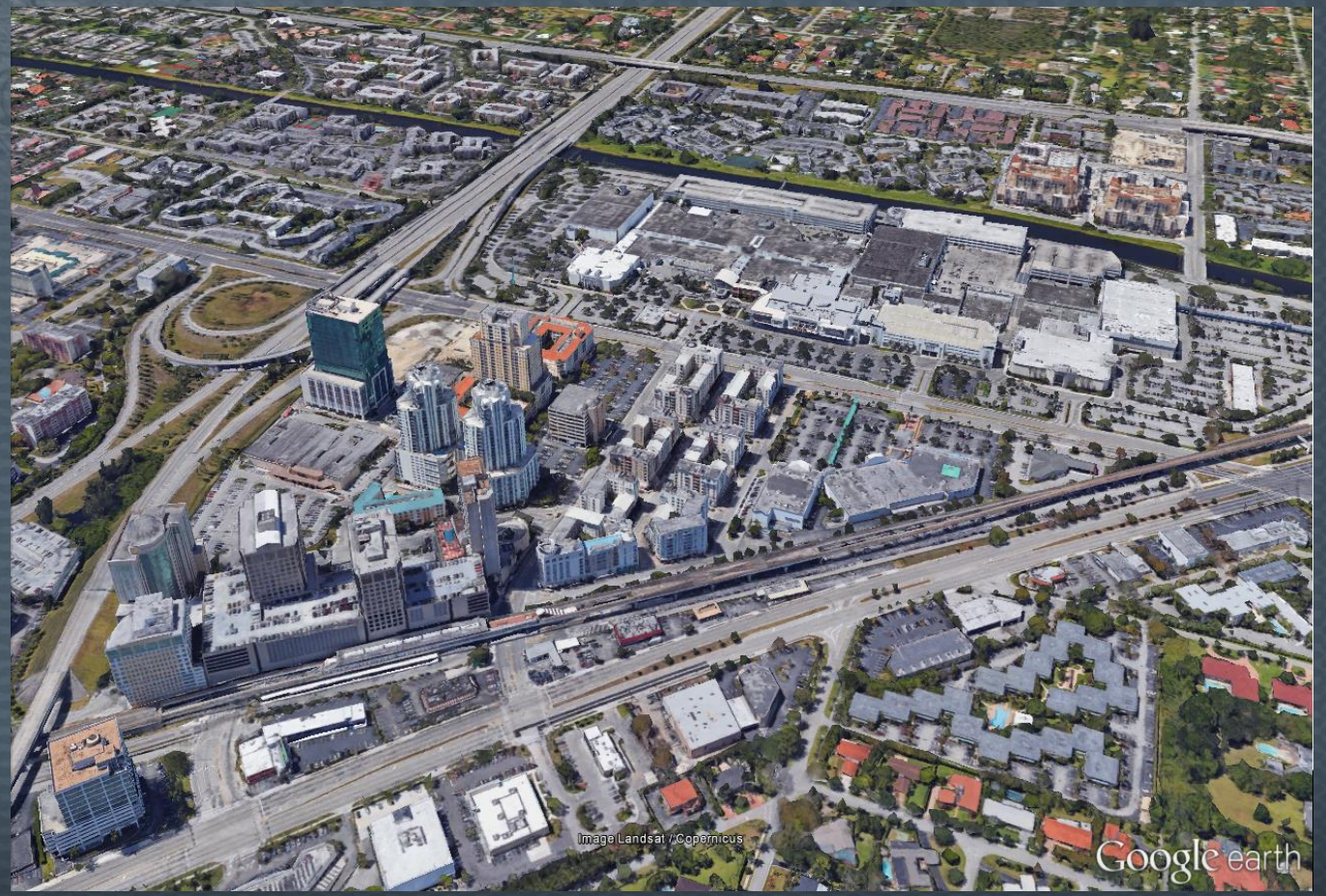
25 STORIES = 125 DU/ACRE



3 STORIES = 125 DU/ACRE

Miami-Dade County Transit-Oriented Communities

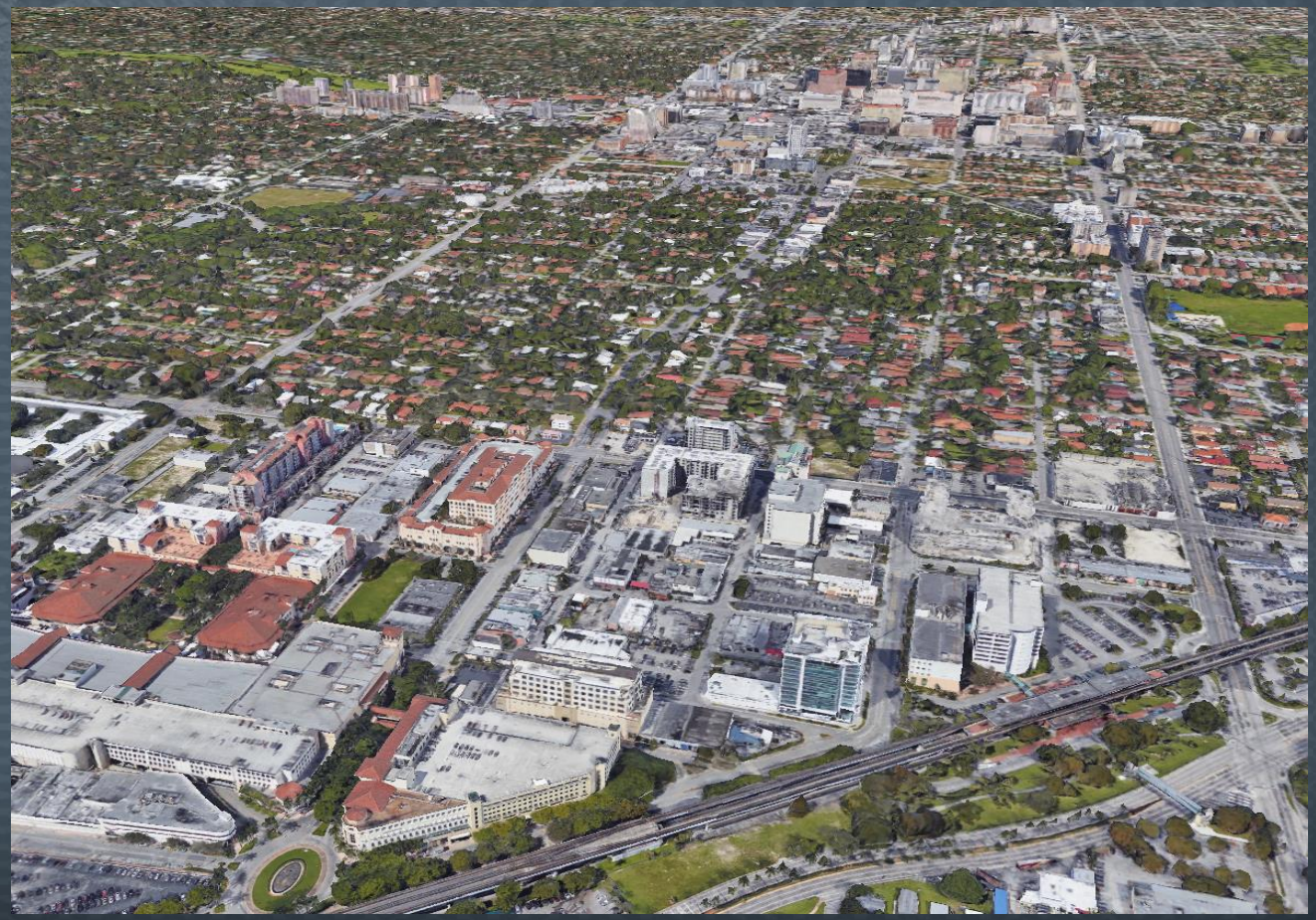
- Downtown Dadeland (Dadeland South Metrorail)



Miami-Dade Transportation Planning Organization

Miami-Dade County Transit-Oriented Communities

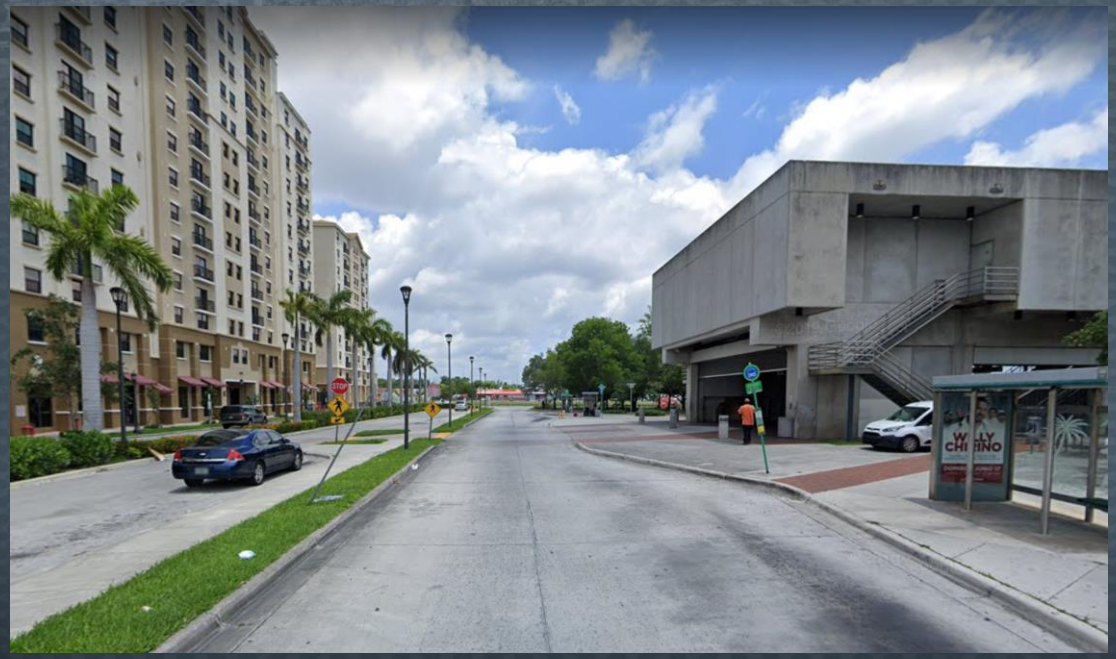
- Shops at Merrick Park Area (Douglas Road Metrorail)



Miami-Dade Transportation Planning Organization

Miami-Dade County Transit-Oriented Communities

- Brownsville Transit Village (Brownsville Metrorail)



Miami-Dade Transportation Planning Organization

EAST-WEST CORRIDOR

Audience Poll - Visual Preference Survey

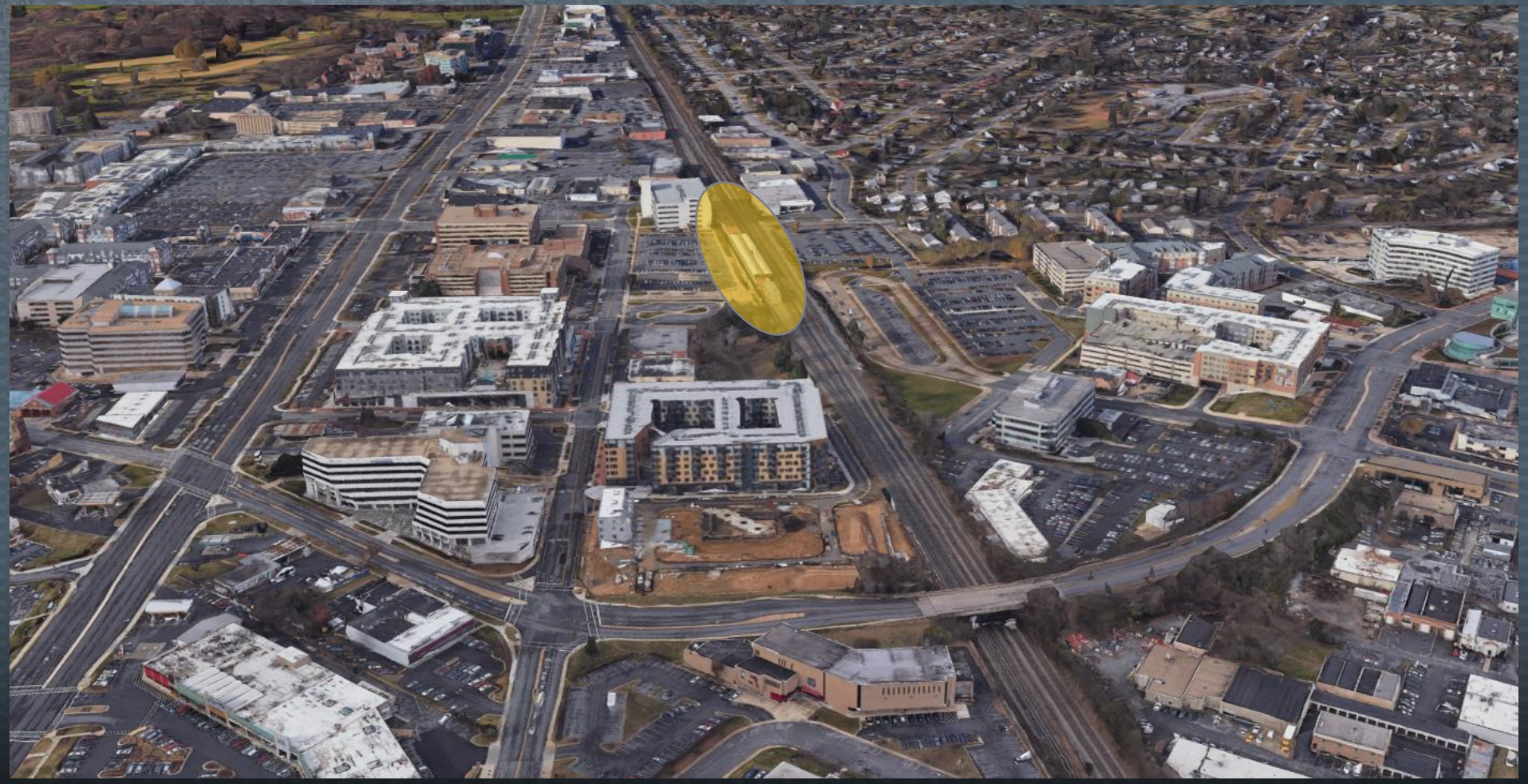
Please rank this image based on your preference on a scale of 1 (low) to 5 (high)

TPO Miami-Dade Transportation Planning Organization

EAST-WEST CORRIDOR

Audience Poll - Visual Preference Survey

Please rank this image based on your preference on a scale of 1 (low) to 5 (high)



TPO Miami-Dade Transportation Planning Organization

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TPO Miami-Dade Transportation Planning Organization

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TPO Miami-Dade Transportation Planning Organization

EAST-WEST CORRIDOR

Audience Poll - Visual Preference Survey

Please rank this image based on your preference on a scale of 1 (low) to 5 (high)

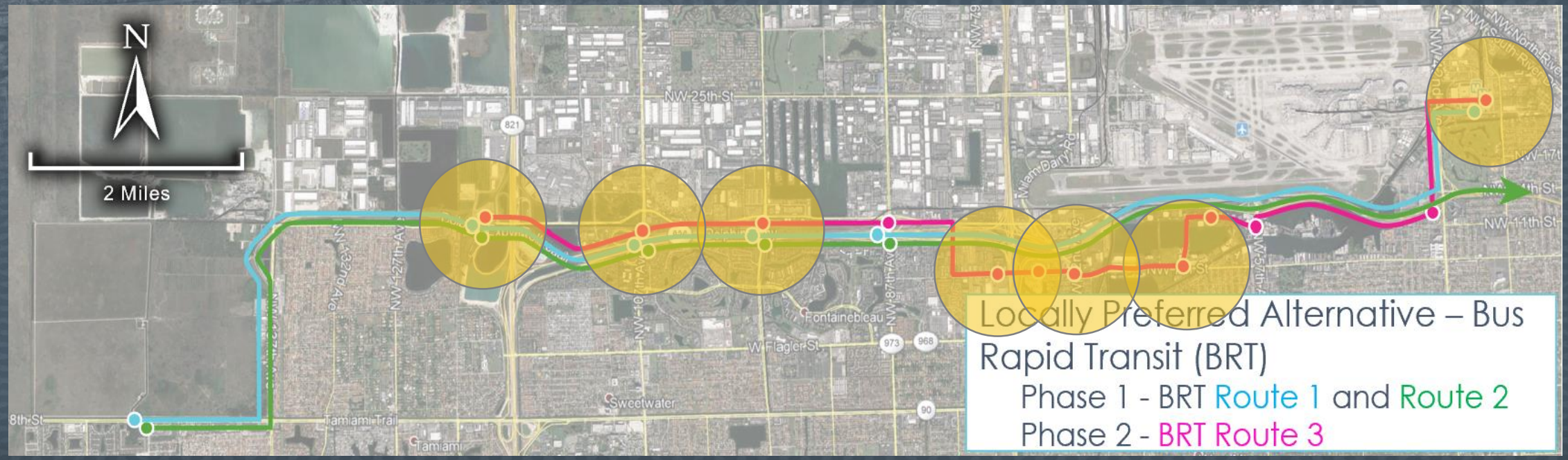
TPO Miami-Dade Transportation Planning Organization

East-West Corridor Station Areas

EAST-WEST CORRIDOR

Land Use Scenario for Bus Rapid Transit
Population Growth

- 2040 station areas population target of 113,000 - *20,000 over natural growth*



- Phase 1 station growth focused at Dolphin Terminal, 107th Avenue, 97th Avenue, and MIC
- Phase 2 station growth focused along 7th Street Corridor

TPO Miami-Dade Transportation Planning Organization

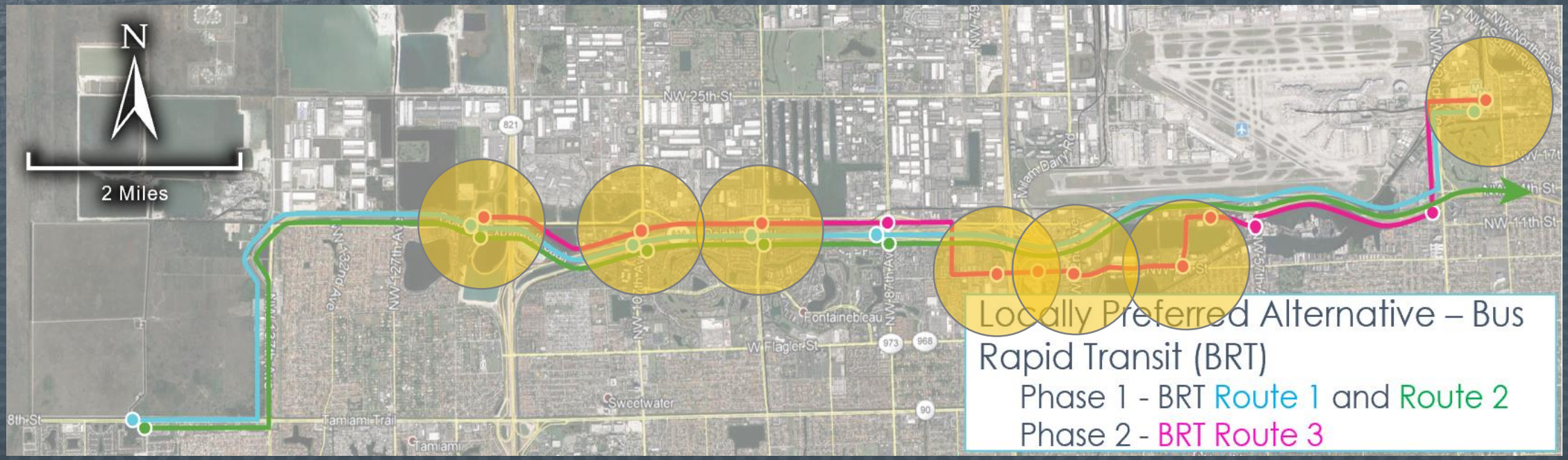
Audience Poll

How do you feel about the 2040 SMART Plan population targets for the station areas along the corridor?

1. Too high for this corridor
2. Too low for this corridor
3. About right for this corridor

Land Use Scenario for Bus Rapid Transit
Employment Growth

- 2040 station areas employment target of 119,000 - *23,000 over natural growth*



- Phase 1 station growth focused at Dolphin Terminal, 107th Avenue, 97th Avenue, and MIC
- Phase 2 station growth focused along 7th Street Corridor

Audience Poll

How do you feel about the 2040 SMART Plan employment targets for the station areas along the corridor?

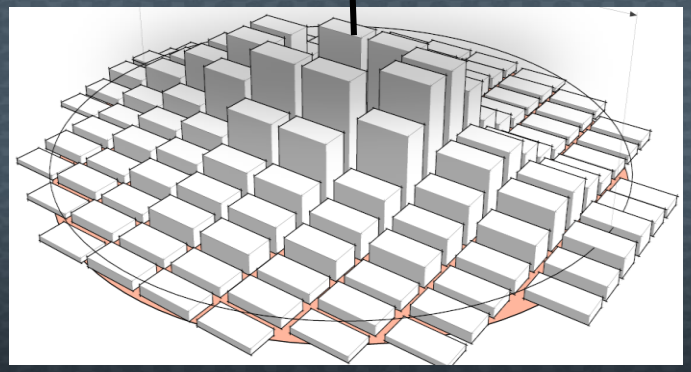
1. Too high for this corridor
2. Too low for this corridor
3. About right for this corridor

EAST-WEST CORRIDOR

Generalized Station Area Typologies

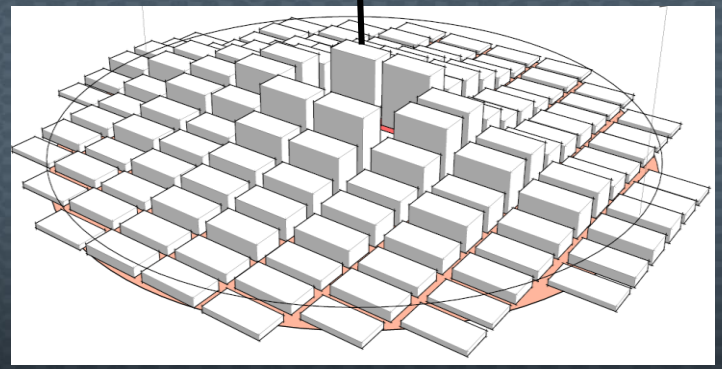
Regional

~15+ stories



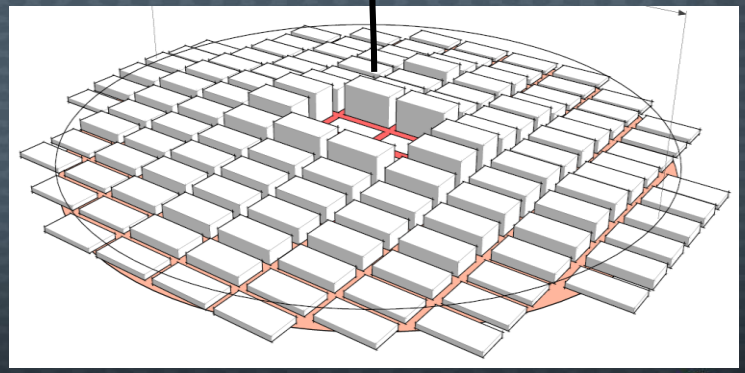
Metropolitan

~6 to 15 stories



Community

~3 to 8 stories



TPO Miami-Dade Transportation Planning Organization

Recommended Corridor Station Area Typologies

Land Use Scenario for BRT	
Location	**Station Type**
Miami Intermodal Center	Regional
LeJeune Road	Community
57th Ave @ Blue Lagoon	Community
Blue Lagoon @ 60th Avenue	Community
7th Street @ 62nd Avenue	Metropolitan
7th Street @ Milam Dairy	Metropolitan
The Wedge	Community
Mall of the Americas	Community
87th Avenue	Metropolitan
97th Avenue	Community
107th Avenue	Metropolitan
Dolphin Terminal	Metropolitan
Tamiami Terminal	Community

Regional Station Areas

High-Rise Multifamily	75+ du/acre	7+ stories, usually in the form of a tower, single- and double-loaded corridors with lobby entrance, off-street parking in structure or below grade
High-Rise Office/Commercial	4.0+ FAR	6+ stories with lobby entrance to upper floors, office with potential ground floor retail, parking in structure or below grade

Example - Downtown Coral Gables

- Residential focused on higher-density multi-family
- Non-residential focused on high-rise buildings with minimal surface parking

Miami-Dade Transportation Planning Organization

Recommended Corridor Station Area Typologies

Land Use Scenario for BRT	
Location	**Station Type**
Miami Intermodal Center	Regional
LeJeune Road	Community
57th Ave @ Blue Lagoon	Community
Blue Lagoon @ 60th Avenue	Community
7th Street @ 62nd Avenue	Metropolitan
7th Street @ Milam Dairy	Metropolitan
The Wedge	Community
Mall of the Americas	Community
87th Avenue	Metropolitan
97th Avenue	Community
107th Avenue	Metropolitan
Dolphin Terminal	Metropolitan
Tamiami Terminal	Community

Metropolitan Station Areas

Mid-Rise Multifamily	50-150 du/acre (110 du/acre)	4-6 stories with apartments/condos, single- or double-loaded corridors with lobby entrance, off-street parking structure/below grade
Mid-Rise Office/Commercial	2.0-5.0 FAR	3-7 stories, with lobby entrance to upper floors, office with potential groundfloor retail, parking in structure or below grade

Example - South Beach

- Residential focused on mid-rise multi-family
- Non-residential focused on mid-rise buildings with minimal surface parking

Recommended Corridor Station Area Typologies

Land Use Scenario for BRT	
Location	**Station Type**
Miami Intermodal Center	Regional
LeJeune Road	Community
57th Ave @ Blue Lagoon	Community
Blue Lagoon @ 60th Avenue	Community
7th Street @ 62nd Avenue	Metropolitan
7th Street @ Milam Dairy	Metropolitan
The Wedge	Community
Mall of the Americas	Community
87th Avenue	Metropolitan
97th Avenue	Community
107th Avenue	Metropolitan
Dolphin Terminal	Metropolitan
Tamiami Terminal	Community

Community Station Areas

Low-Rise Multifamily	20-75 du/acre (55 du/acre)	2-4 stories with apartments/condos, single- or double-loaded corridors with lobby entrance, off-street parking in surface/structure
Low-Rise Office/Commercial	0.5-2.5 FAR	1-3 stories with lobby entrance to upper floors; retail, office or mixed-use with mix of tenant types, including limited large-footprint retail uses; parking in surface lots or structures

Example - Miami Lakes

- Residential focused on low-rise single and multi-family
- Non-residential focused on low-rise buildings with surface parking behind

Interactive Brainstorming Session

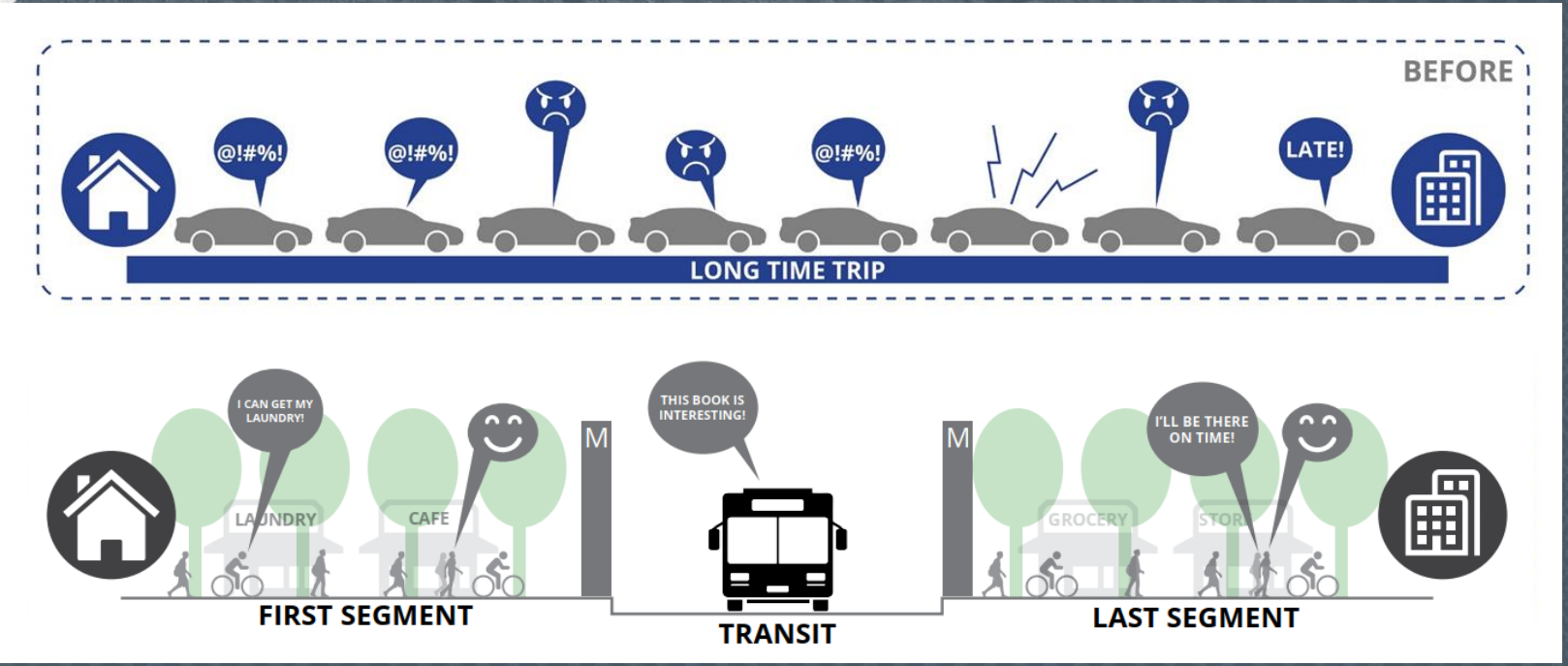
SMART PLAN EW CORRIDOR LAND USE VISIONING & ACCESSIBILITY

Click the Chat button to submit comments

Miami-Dade Transportation Planning Organization

Station Area Accessibility and Public Input

First and Last Mile Access Strategies and Goals

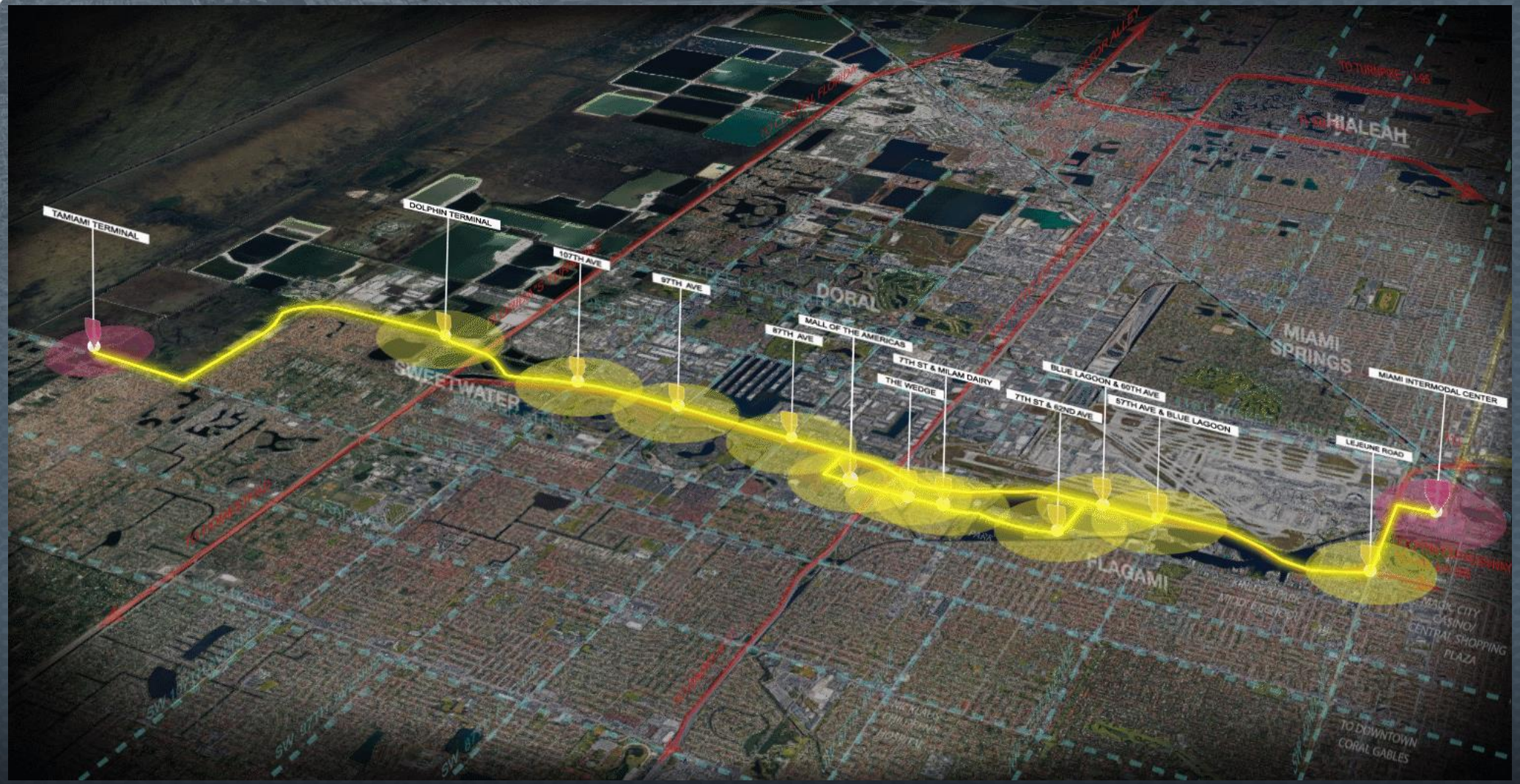


- Complement and augment existing transportation facilities/services
- Broaden reach of transit and expand multimodal choices
- Leverage SMART Plan investments around stations

Miami-Dade Transportation Planning Organization

EAST-WEST CORRIDOR

Connectivity with the East-West Corridor



Miami-Dade Transportation Planning Organization

EAST-WEST CORRIDOR

Pedestrian Access Strategies

GOALS

- Provide direct intuitive pedestrian routes to stations.
- Increase pedestrian safety and comfort.
- Activate walkable, safe developments that include public realm amenities that link people with nearby transit services.

- **SAFE CROSSWALKS**
- **WIDE SIDEWALKS AND CURB IMPROVEMENTS**
- **MIX OF USES AND VIBRANT GROUND FLOOR ACTIVITY**
- **ACTIVE PATHS**
- **PEDESTRIAN AMENITIES**
- **UNIVERSAL DESIGN**
- **BREAK UP LONG BLOCKS**

TPO Miami-Dade Transportation Planning Organization

EAST-WEST CORRIDOR

Bicycle Access Strategies

GOALS

- Provide direct intuitive bicycle routes to stations.
- Increase bicyclist safety and comfort.
- Integrate bicycle infrastructure and facilities.

BICYCLE INFRASTRUCTURE

SECURE CYCLE FACILITIES

BICYCLE SHARE AND SHORT TERM RENTAL

SAFE CROSSINGS

BICYCLE REPAIR STATIONS

TPO Miami-Dade Transportation Planning Organization

Transit Access Strategies

GOALS

- Improve and identify opportunities on how existing transit routes could be configured to capitalize on the new high-speed service.
- Make transfers between buses and other access modes safe, comfortable and efficient.

TRANSIT INTEGRATION

FEEDER BUS AND SHUTTLE SERVICES

SAFE AND COMFORTABLE WAITING AREAS

Miami-Dade Transportation Planning Organization

Auto Access Strategies

GOALS

- Provide direct access to stations giving priority to pedestrians, bicyclists and transit.
- Improve intermodal connectivity opportunities.
- Provide easy access to parking and kiss and ride areas.

PARKING

TRAFFIC CALMING STRATEGIES

RIDE SHARE, VAN POOL AND TAXIS

PICK UP - DROP OFF AREAS

Miami-Dade Transportation Planning Organization

Wayfinding Strategies

GOALS

- Improve ease and access to stations.
- Increase legibility of the urban landscape.
- Increase visibility and awareness of proximity to stations with repetitive elements that are recognizable.

PEDESTRIAN SCALE WAYFINDING SIGNAGE

ACCESSIBILITY SIGNAGE

WAYFINDING SIGNAGE TO PARKING

Miami-Dade Transportation Planning Organization

Safety / Security Strategies

GOALS

- Make active transportation users comfortable and safe while traveling.
- Improve sense of security by increasing the number of "eyes on the street" within the station areas.

LIGHTING FOR PEDESTRIANS AND BICYCLISTS

SHADE STRUCTURES /LANDSCAPE

EYES ON THE STREETS

EAST-WEST CORRIDOR

Station Amenities

GOALS

» Create a vibrant and vital station to enhance the transportation experience.

NEWSSTANDS AND KIOSKS

OPEN SPACE/PLAZA

VISUAL ENHANCEMENTS (INCLUDING PUBLIC ART)

TPO Miami-Dade Transportation Planning Organization

Audience Poll

Which East-West Corridor station are you likely to use most often?

1. Tamiami Terminal
2. Dolphin Terminal
3. 107th Avenue
4. 97th Avenue
5. 87th Avenue
6. 7th Street West Stations (Mall of the Americas & Wedge)
7. 7th Street East Stations (Milam Dairy & 62nd Avenue)
8. Blue Lagoon (60th & 57th Avenue Stations)
9. LeJeune Road
10. Miami Intermodal Center

Audience Poll

How do you plan to access the East-West Corridor rapid transit stations?

1. Walk
2. Bike
3. Drive (Park & Ride)
4. Drop-Off (Taxi / Uber)
5. Bus / Trolley
6. Other

Audience Poll

What is the most generally important access strategy?

1. Pedestrian
2. Bicyclist
3. Transit
4. Auto
5. Other

Audience Poll

What is the most important amenity needed at stations?

1. Auto parking
2. Bicycle racks / lockers
3. Wayfinding signage
4. Shade
5. Lighting
6. Plazas for gathering
7. Food / convenience kiosk
8. Public Art

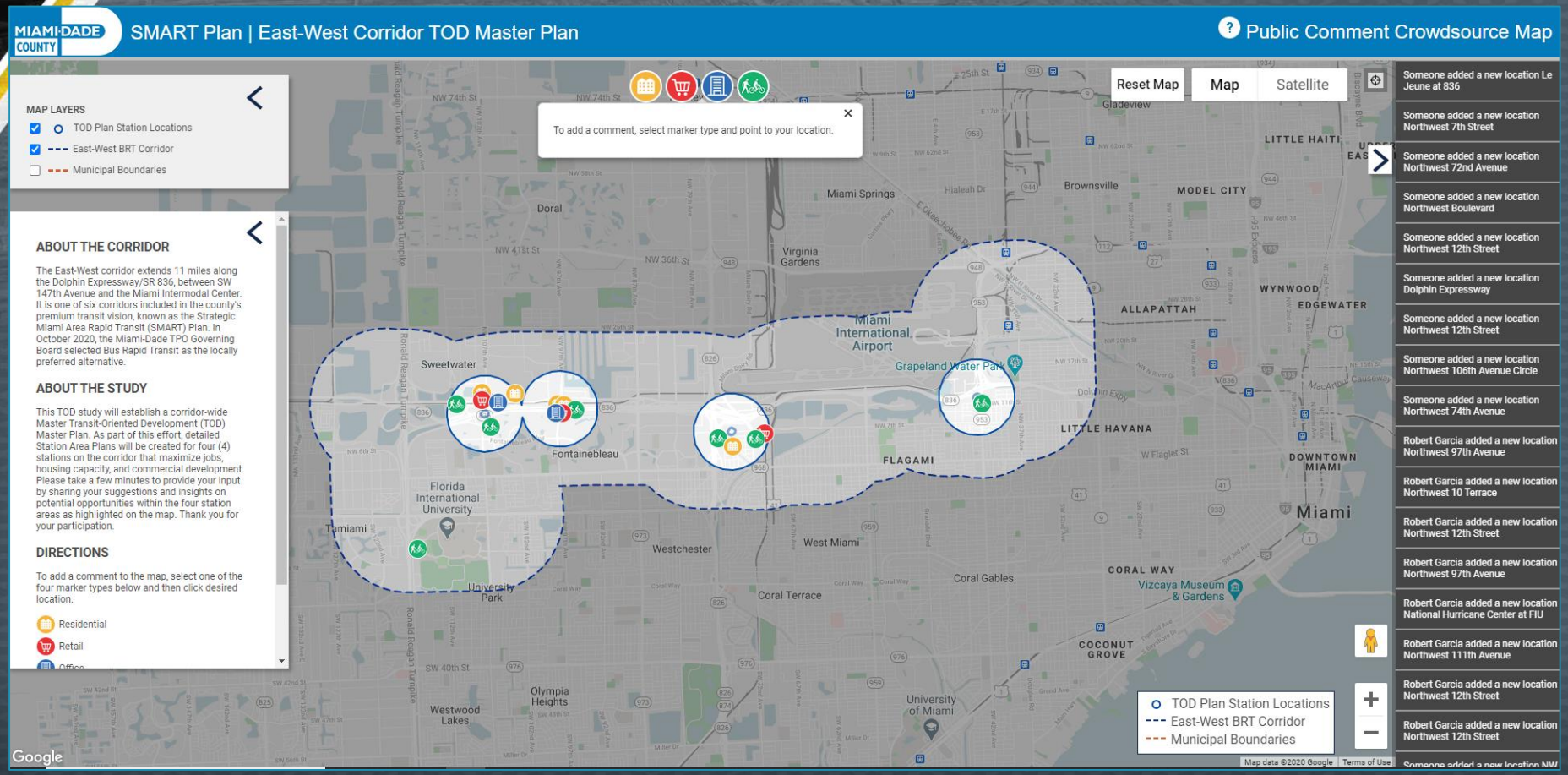
Interactive Brainstorming Session

SMART PLAN EW CORRIDOR LAND USE VISIONING & ACCESSIBILITY

Click the Chat button to submit comments

Miami-Dade Transportation Planning Organization

DTPW Transit-Oriented Development Study



https://vizmaps.wspis.com/east-westtod/crowdsource/map.aspx#

- Maximize transit-supportive station area development
- Detailed station area plans being developed for:
  - 107th
  - 97th
  - The Wedge
  - LeJeune
- Public comment crowdsource map
- Public Meetings in early March
- Study to be completed in Spring 2021

Miami-Dade Transportation Planning Organization

Study Contacts

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Alicia Gonzalez
Consultant Public Information Officer
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agonzalez@mrgmiami.com

Stay Informed!

Thank You for joining us today!

Your involvement is very important!

Miami-Dade Transportation Planning Organization

Appendix C: Land Use Refinement and Reallocation Process

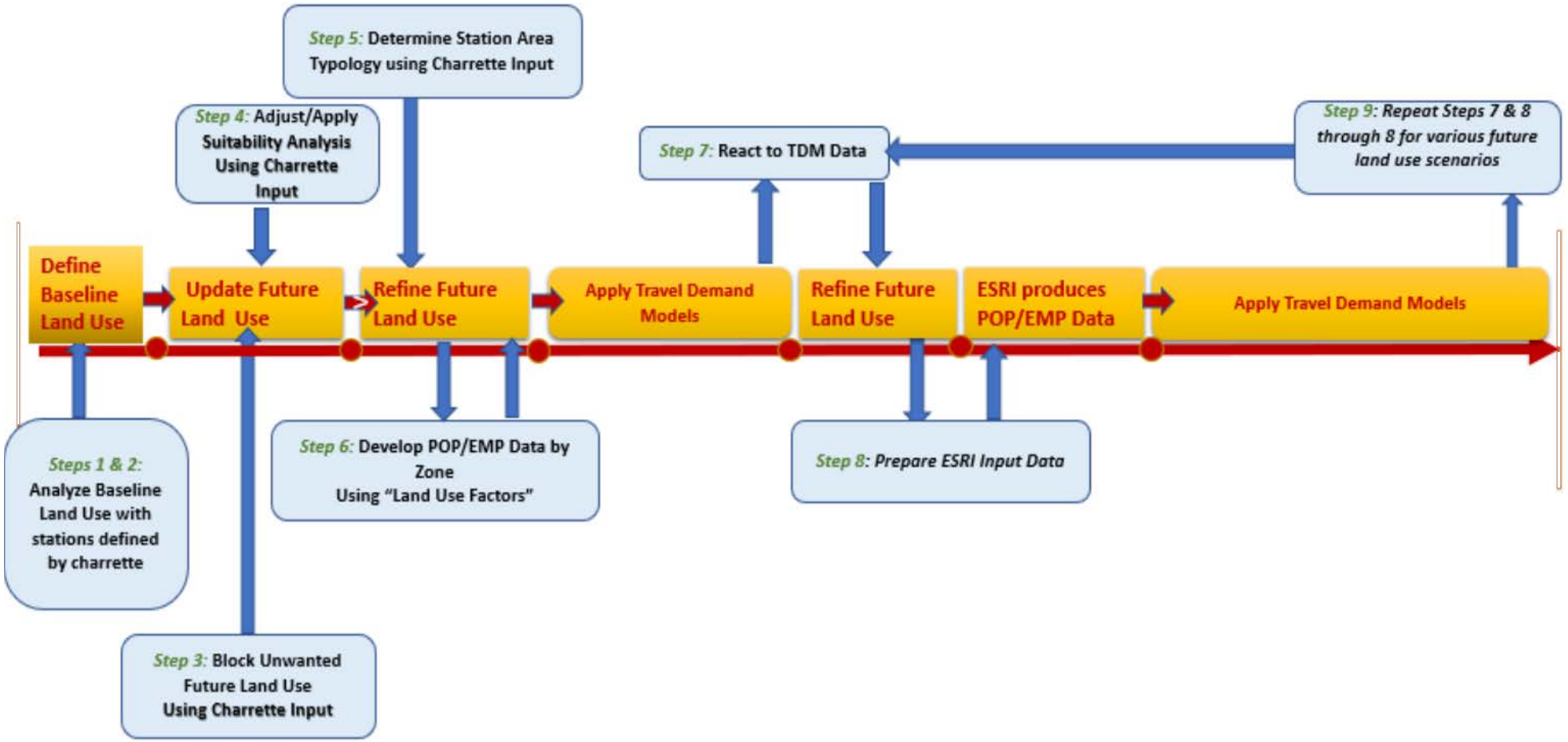
SMART PLAN NORTH CORRIDOR

LAND USE REFINEMENT & REALLOCATION PROCESS

TECHNICAL OVERSIGHT COMMITTEE

JANUARY 17TH, 2018

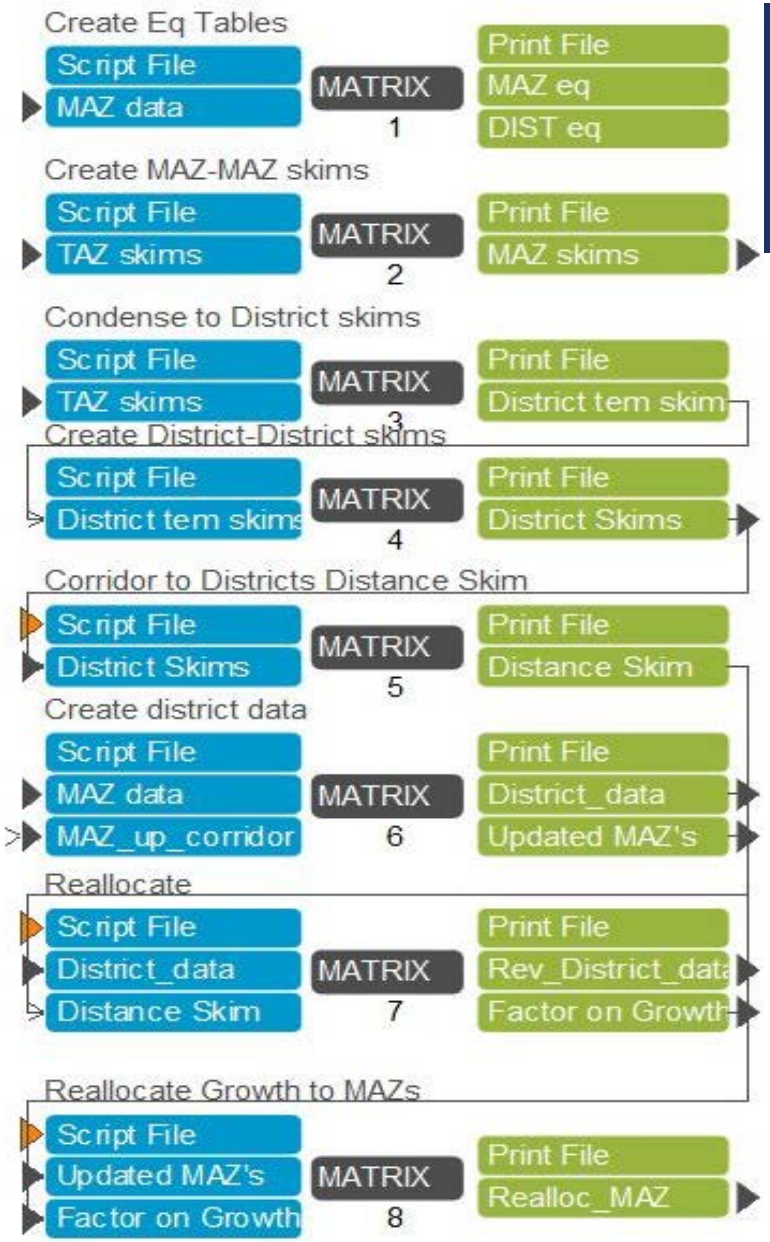
LAND USE REFINEMENT PROCESS



"STEP 6": POPULATION + EMPLOYMENT

- **TOTAL CORRIDOR POPULATION + EMPLOYMENT**

CORRIDOR-WIDE SUMMARY	SERPM pop15	SERPM pop40	LOW	MED	HIGH	LOW DIFFERENCE (FROM 2040)	MED DIFFERENCE (FROM 2040)	HIGH DIFFERENCE (FROM 2040)
POPULATION	58,365	93,193	147,619	197,978	248,336	54,426	104,785	155,143
EMPLOYMENT	64,682	87,990	136,328	165,061	194,507	48,338	77,071	106,517



CUBE GROWTH REALLOCATION PROCESS

- Input
  - MAZ file with 2015 and 2040 data
  - File with revised MAZ data for the Corridor
  - SERPM7 TAZ-TAZ distance matrix (skims)
- Output
  - MAZ file with revised 2040 data

METHOD

- **Broward & Palm Beach MAZ's not touched.**
- **MAZ's in Districts inside the corridor that are not made more dense are not touched.**
- **Any other MAZ's in Miami-Dade flagged to be excluded not touched.**
- **All processes work on growth (like POP40-POP15). 2015 data not touched.**
- **County level 2040 data control totals are maintained.**
- **Reallocation factors (RF) are calculated on a district level and applied to MAZ's. Revised data = original data * RF**

- **Reallocation factors are a function of:**
  - ✓ **The square of the distance from the corridor to each district (inverse)**
  - ✓ **The original density of the district (direct).**
  - ✓ **Values are normalized so that the sum of the decreases outside the corridor is equal to the sum of the increases inside the corridor.**

SKIMS

- **Use TAZ-TAZ distance skims from SERPM7.**
- **Condense to Districts as follows.**
- **Sum the skims from every TAZ in a district to every TAZ in the corridor. Call this sum SS_D.**
- **Count the number of TAZ-TAZ interchanges from every district to TAZ's in the corridor. Call this sum C_D.**
- **Calculate the average district-corridor skim, D_D, for each district $_D$.**

$$D_D = SS_D / C_D$$

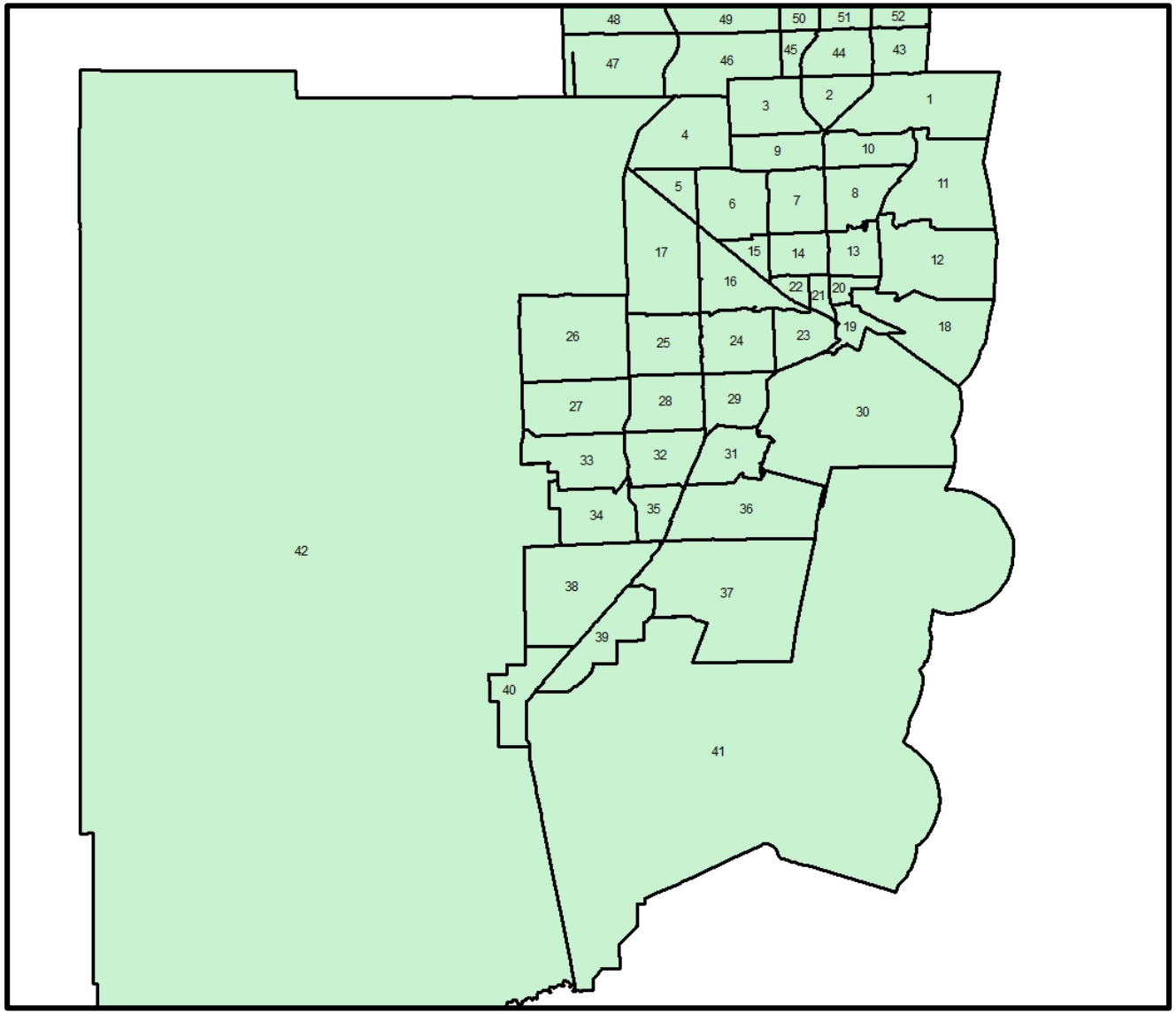
REALLOCATION EQUATION

Factor = $(1/D^2)$ x (original growth)/(Total Miami-Dade Growth)

Rev_data = Original data - Factor x (original growth)

Where……

- D = Distance from the Corridor to each District outside the corridor
- Original growth = (Pop40-Pop15) from SERPM7 (or HH or EMP)
- Total Miami-Dade Growth = Sum of all growth for all MAZ's
- Original data = Pop40 (or HH40 or EMP40)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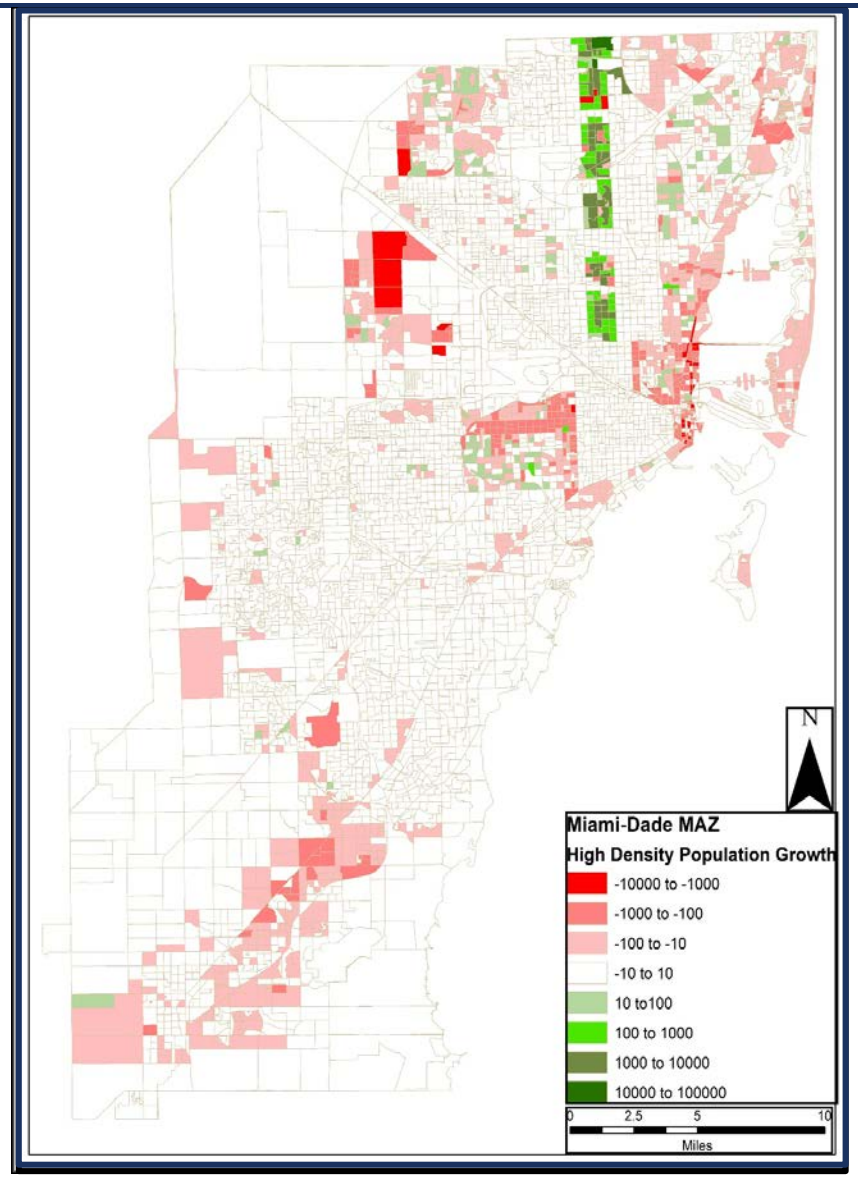
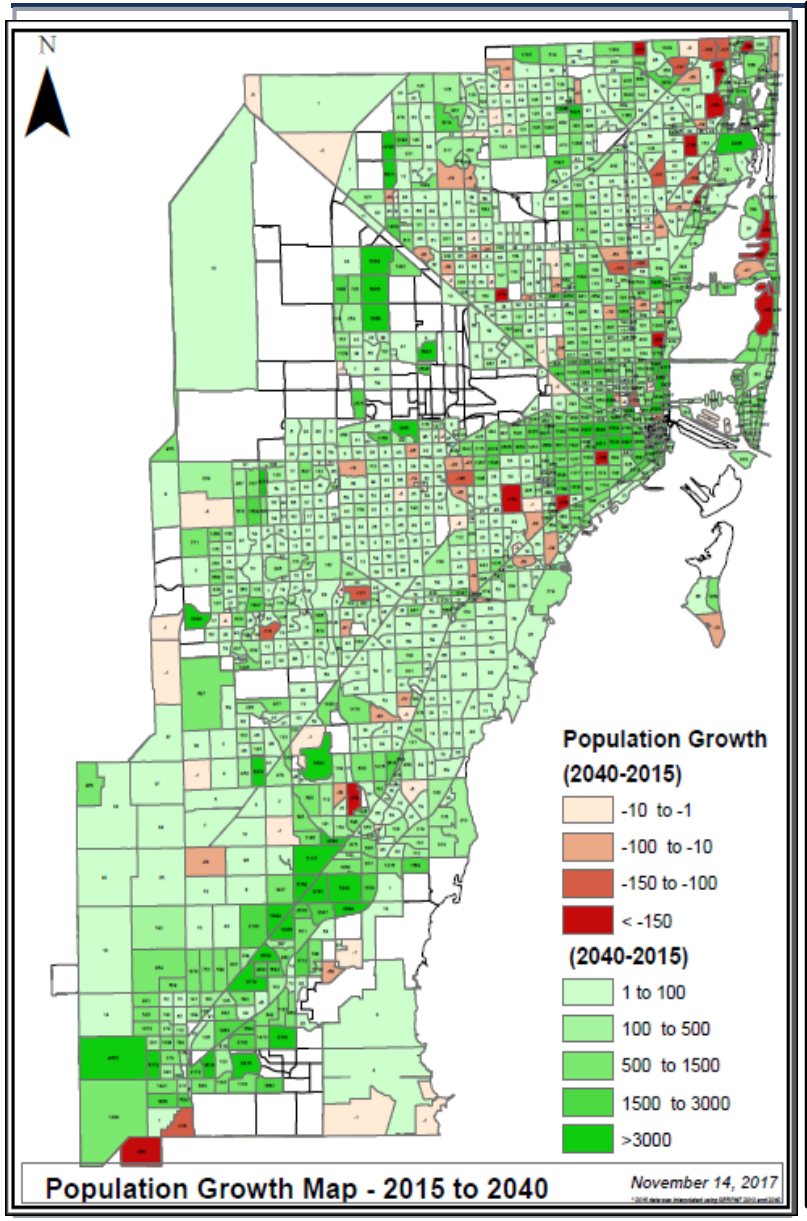
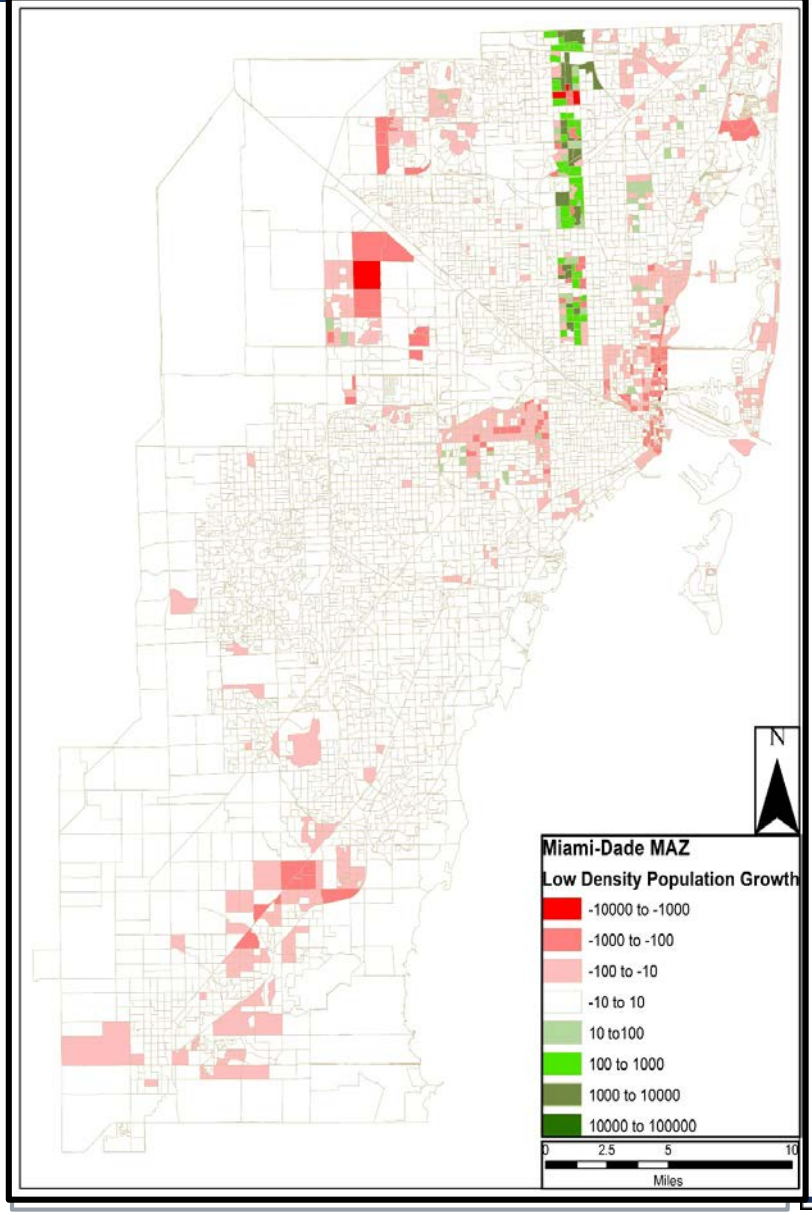
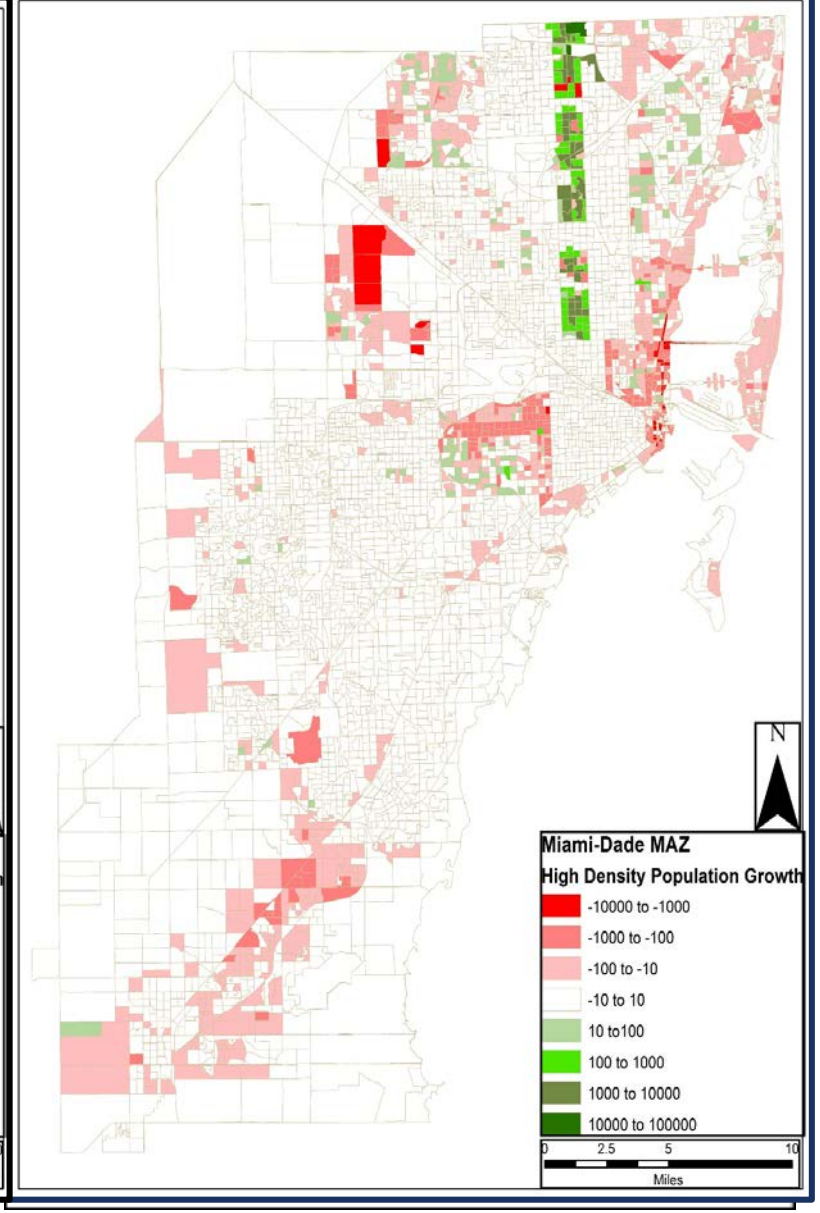
DISTRICTS



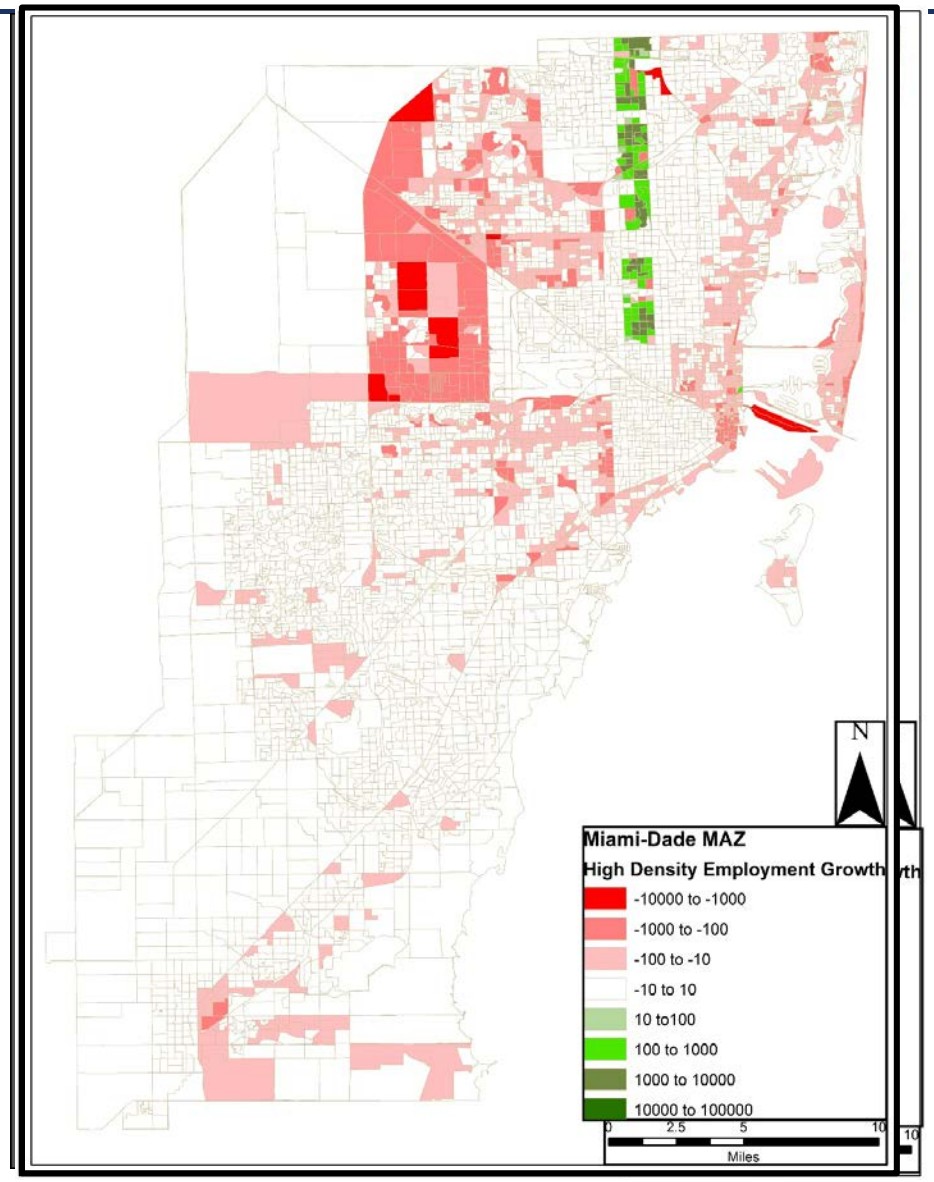
POPULATION GROWTH 2015-2040

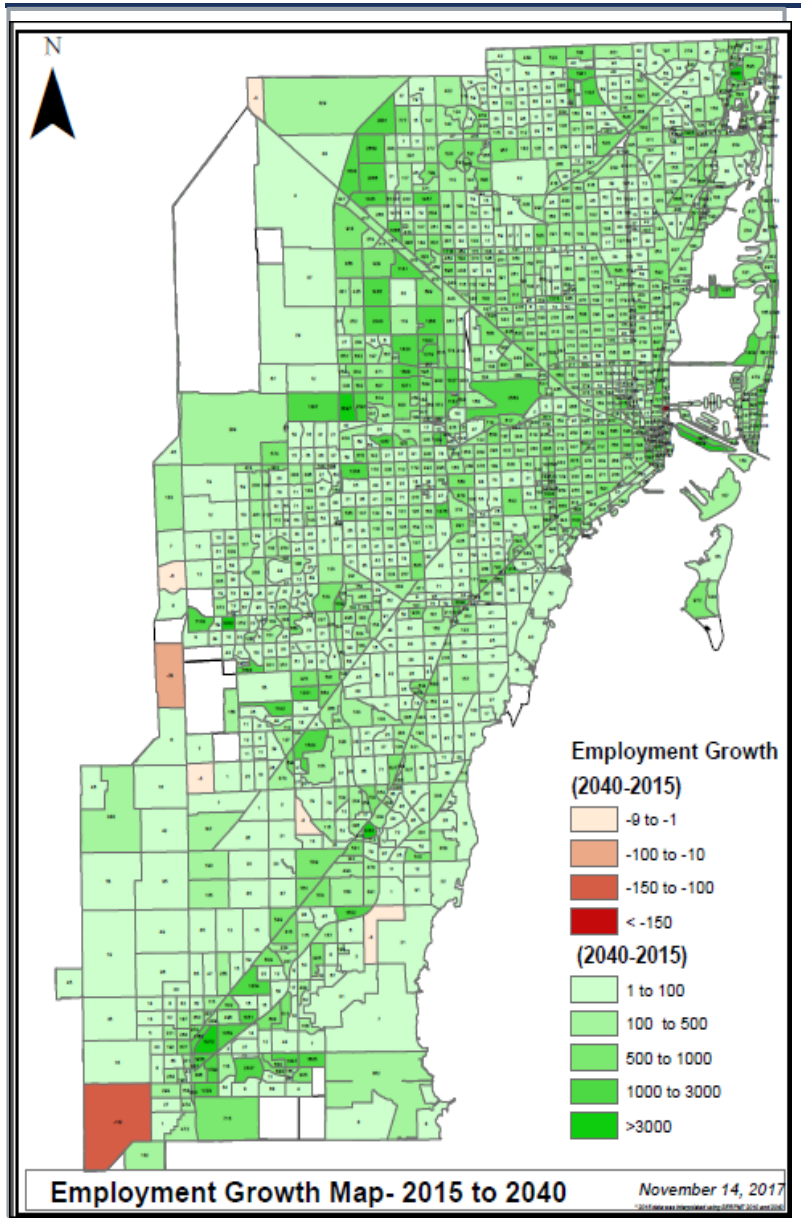

N
Population Growth
(2040-2015)
-10 to -1
-100 to -10
-150 to -100
< -150
(2040-2015)
1 to 100
100 to 500
500 to 1500
1500 to 3000
>3000
Population Growth Map - 2015 to 2040
November 14, 2017

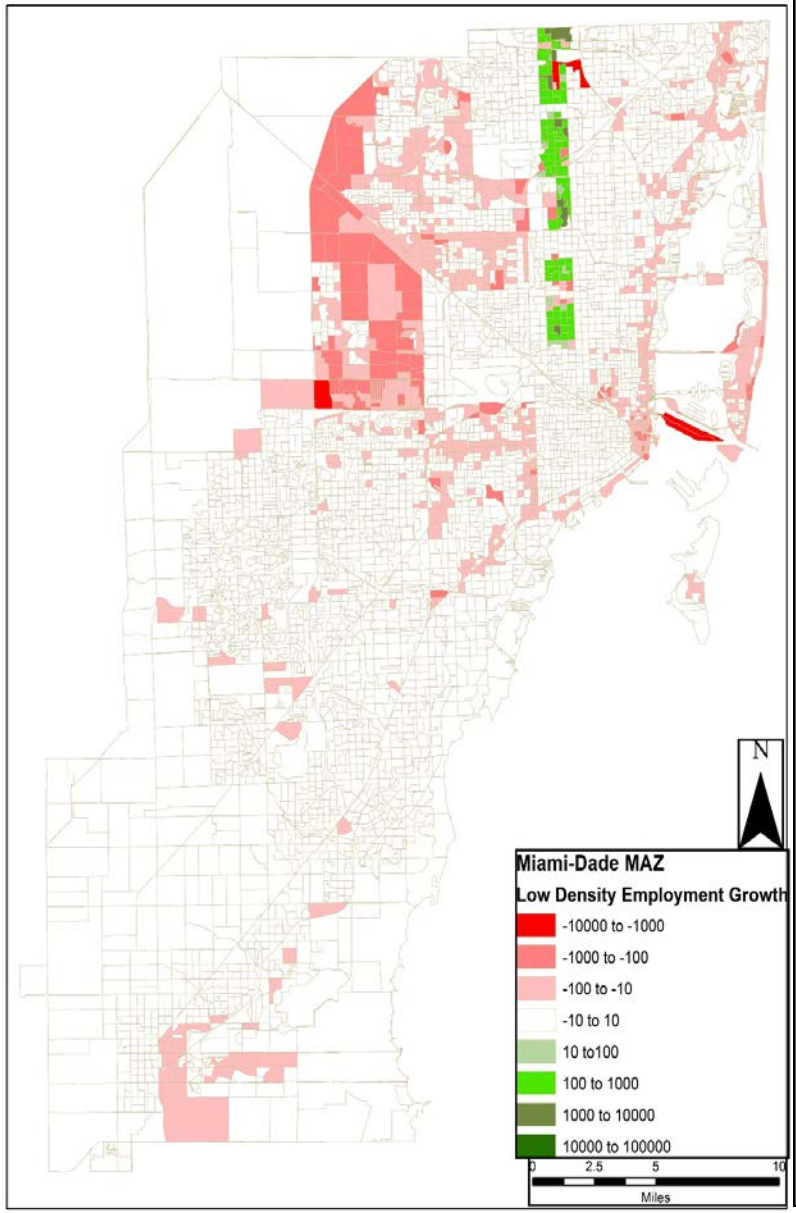

N
Miami-Dade MAZ
Low Density Population Growth
-10000 to -1000
-1000 to -100
-100 to -10
-10 to 10
10 to100
100 to 1000
1000 to 10000
10000 to 100000
0 2.5 5 10
Miles

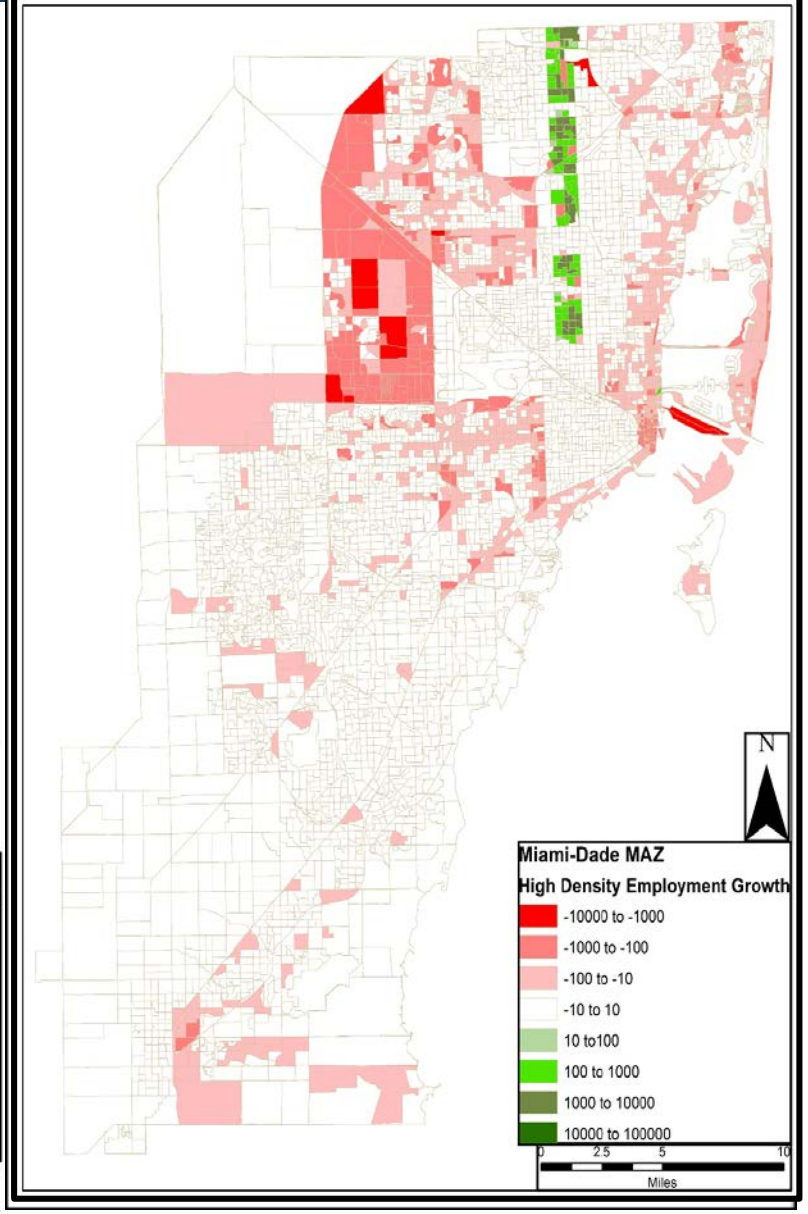

N
Miami-Dade MAZ
High Density Population Growth
-10000 to -1000
-1000 to -100
-100 to -10
-10 to 10
10 to100
100 to 1000
1000 to 10000
10000 to 100000
0 2.5 5 10
Miles

EMPLOYMENT GROWTH 2015- 2040




N
Employment Growth
(2040-2015)
-9 to -1
-100 to -10
-150 to -100
< -150
(2040-2015)
1 to 100
100 to 500
500 to 1000
1000 to 3000
>3000
Employment Growth Map- 2015 to 2040
November 14, 2017


N
Miami-Dade MAZ
Low Density Employment Growth
-10000 to -1000
-1000 to -100
-100 to -10
-10 to 10
10 to100
100 to 1000
1000 to 10000
10000 to 100000
0 2.5 5 10
Miles


N
Miami-Dade MAZ
High Density Employment Growth
-10000 to -1000
-1000 to -100
-100 to -10
-10 to 10
10 to100
100 to 1000
1000 to 10000
10000 to 100000
0 2.5 5 10
Miles

QUESTIONS/COMMENTS ?