Miami-Dade Transportation Planning Organization

Miami Dade County

Future Transit Corridors Evaluation

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Miami-Dade Transportation Planning Organization

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CHAPTER 1 INTRODUCTION

1.1 Study Background

In 2016, the Miami-Dade Transportation Planning Organization (TPO) Governing Board unanimously approved a policy to set as "highest priority" the advancement of rapid transit corridors and transit supportive projects for Miami-Dade County, endorsing the proposed Strategic Miami Area Rapid Transit (SMART) Plan.

As work has progressed, a plan of corridors has transformed into a program of projects, which is being advanced through the People's Transportation Plan (PTP). Once completed, mass transit infrastructure in Miami-Dade County will greatly expand its reach to new parts of the County. The PTP is the implementation of a vision for the 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 program is comprehensive, proactive, and supports the future population and employment growth anticipated in our region.

1.2 Study Purpose

This study seeks to build off the progress achieved through the SMART Program to define the next phases of the SMART Program – referred to in this document as Future Corridors 2.0 & 3.0. This effort has led to the TPO identifying new candidate corridors to further expand the reach of transit in Miami-Dade County. The recommendations for this study are intended to be considered on the outside years of the long-range transportation planning process. Instead of considering corridors that might be implemented within 5- or 10-year planning horizons, this study is looking beyond, to an implementation horizon of 30 to 40 years.

The purpose of an extended visioning timeline is to move the visioning exercise beyond short-term impediments, and instead look at the corridor's overall potential for expanding transit connectivity. Obstacles such as short-term plans for corridors, unsupportive land uses, and potential community resistance may present near-term hinderances to transit development but may also be outweighed by potential future corridor population and employment growth. To advance these corridors into a comprehensive network that can expand upon the SMART Program's successes, the following steps were taken by the study's consultant team:

1. Candidate corridors were identified through a combination of a literature review of previous studies, and a workshop with TPO staff to reach an evaluation list of 20 corridors.
2. The consultant team then collected data on these corridors, and screened them, to determine which are the most transit-supportive.

3. The top eight corridors were selected for a cost estimate, ridership forecast, and an environmental screening to identify potential roadblocks and associated mitigation strategies to their implementation.
4. Finally, a scenario was developed to explore potential implementation phasing for Future Corridors 2.0 & 3.0.

Figure 1-1 presents the final Future Corridors 2.0 & 3.0 vision map overlaid with existing services and SMART Program corridors.

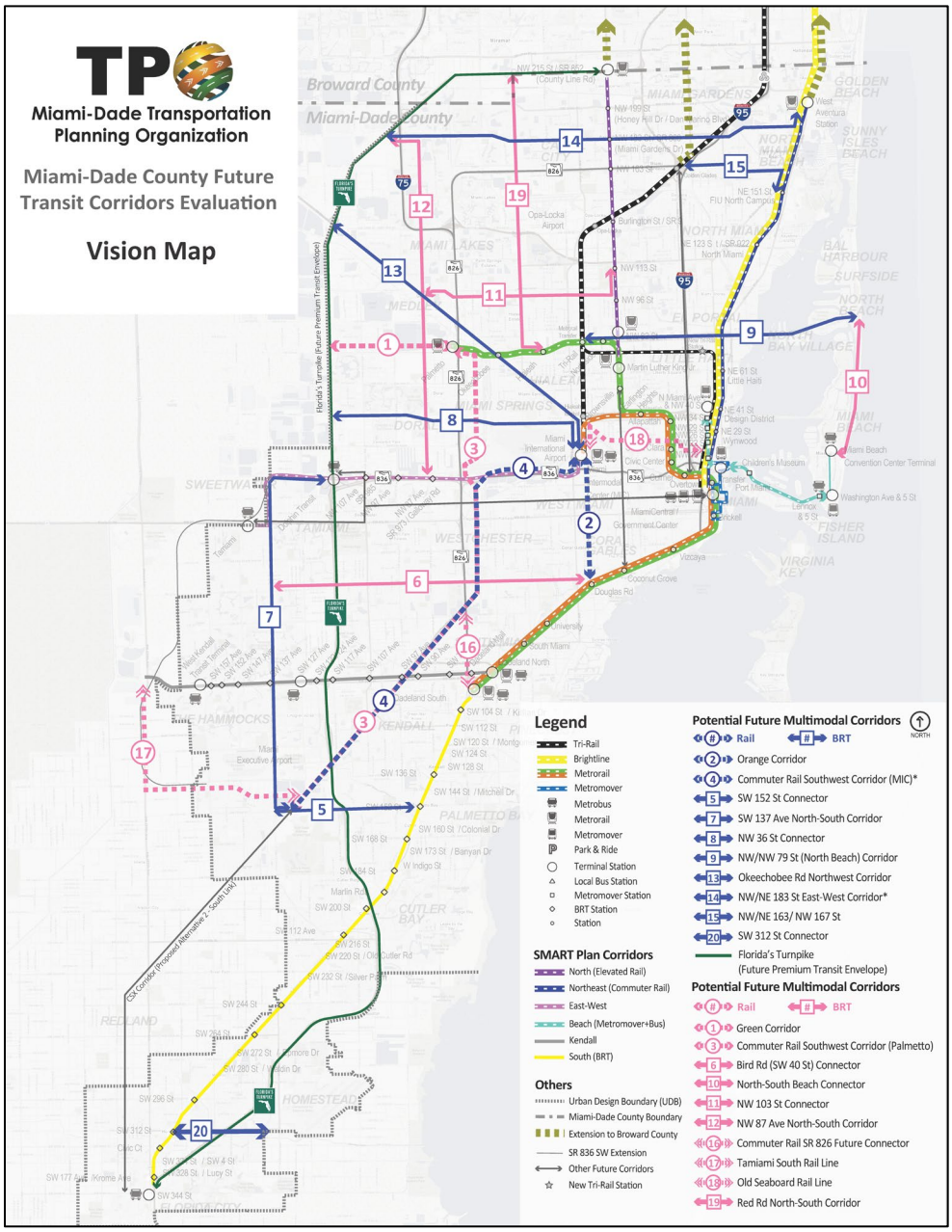

Figure 1-1: Future Corridors 2.0 & 3.0 Vision Map

1.3 Project Coordination and Management

Coordination with partner agencies provides insights and different perspectives into the analysis of the Future Corridors 2.0 & 3.0. In this study, the TPO and its consultant consulted with Miami-Dade County, Florida Department of Transportation (FDOT), and various municipalities. These agencies provided feedback on corridor alignments and offered their perspectives on potential phasing priorities.

As this study was underway, the TPO was in the process of developing the 2050 Long Range Transportation Plan (LRTP). Mobility needs are defined through this process, which prioritizes the program of projects to be funded in Miami-Dade County over the next 25 years. The study team met with the LRTP Steering Committee in November 2023 and March 2024 to obtain input. As the study neared its conclusion, the study team provided the LRTP Steering Committee with project descriptions, cost estimates, and prioritizations for the evaluated corridors.

The study team also met with the FDOT in May 2024 to discuss the Future Corridors 2.0 & 3.00 effort. Potential corridors were presented, and their prospective impacts were discussed. The impacts of legislation then being debated in the Florida Legislature was raised, including changes to how lane repurposing planning processes would be affected. Because this study is looking long-term, there were no immediate actions that came out of the conversation with FDOT staff.

The study team also met with the study team working on the *CSX Southwest Railroad Corridor Assessment* study, which is an evaluation of potential ridership and operating characteristics for commuter rail service on the CSX tracks from the Miami Intermodal Center to Kendall, West Kendall, and Homestead.

CHAPTER 2 LITERATURE RESEARCH

One of the objectives of this study is to identify potential linkages and interconnections to the existing transit network, as well as the planned SMART Program. Figure 2-1 below shows the map of the original SMART Program (referred as SMART 1.0).

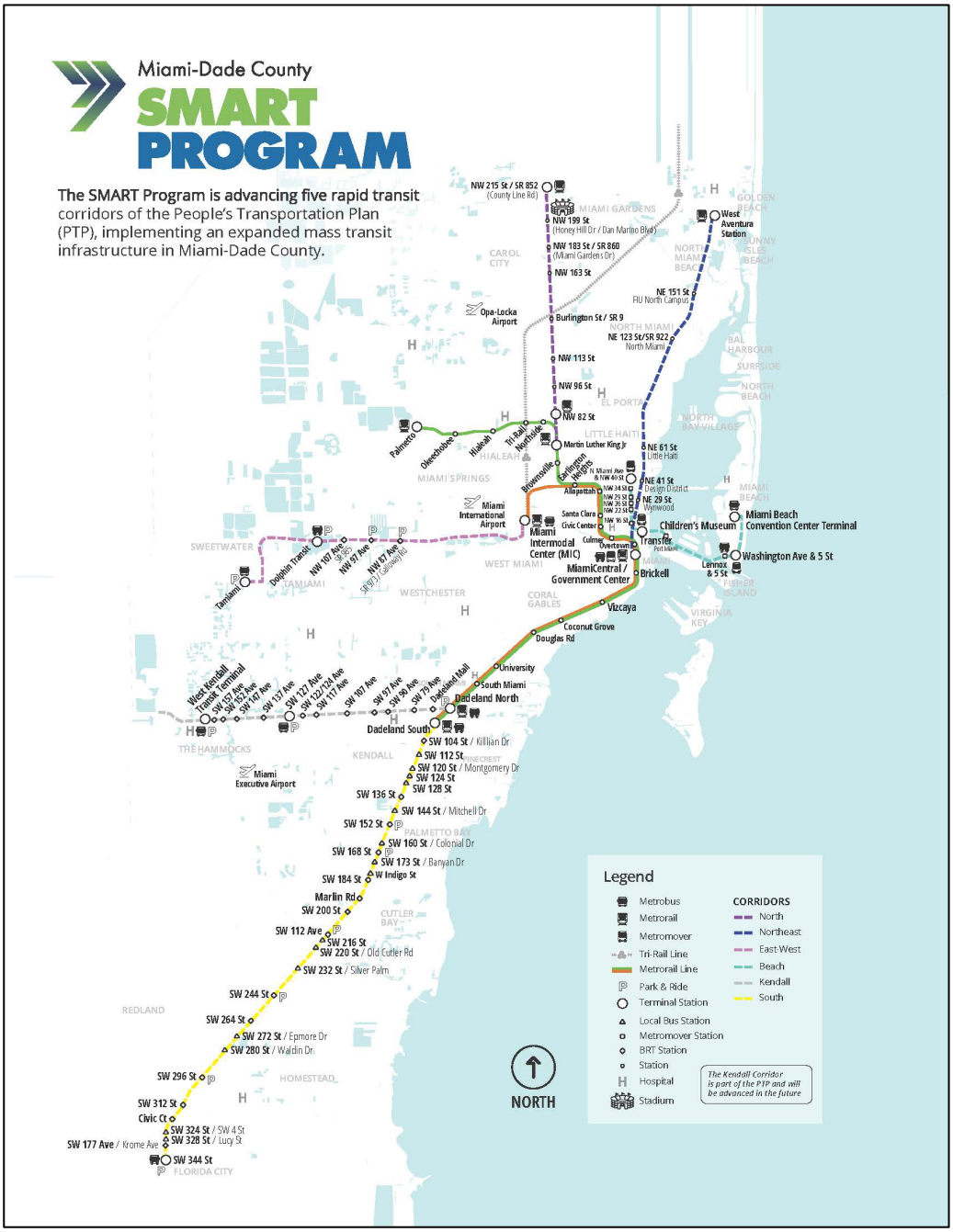

Figure 2-1: SMART Program Map (SMART 1.0)

In addition to consideration of the SMART 1.0 map corridors, the preliminary list of corridors developed for this study was further supplemented by a high-level literature review. Past planning documents that explored transit potential on corridors throughout the County were reviewed including:

137th Avenue Corridor Study 2005 - which evaluated a potential transit redesign of SW 137 Avenue into a north/south corridor linking the City of Homestead to central Miami-Dade County.

79th Street Corridor Redevelopment Plan - focused on transforming the section of NW 79 Street stretching from NW 22 Avenue to NW 42 Avenue with dedicated bus lanes, park-and-ride facilities, parking provisions, and a relocation of Miami's Amtrak station. The plan also explored the potential of revitalizing the Northside Shopping Center.

Aerial Cable Transit (ACT) Feasibility Study - analyzed the use of Aerial Cable Transit (ACT) systems, such as gondolas or gondola monorails, to connect key destinations including Florida International University (FIU), the Miami Intermodal Center (MIC), Marlins Ballpark, the Health District, Downtown Miami, and Miami Beach.

Arterial Grid Network Analysis 2006 - sought to determine whether improvements could be made to the grid system as a long-term traffic congestion relief measure. The study evaluated the following corridors, depicted in **Table 2-1**.

Table 2-1: Arterial Grid Network Analysis Corridors

Road	From	To	Potential
SW 56 Street	SW 57 Avenue	SW 67 Avenue	4L
SW 56 Street	SW 87 Avenue	SW 107 Avenue	6L
SW 56 Street	SW 127 Avenue	SW 147 Avenue	6L
SW 117 Avenue	SW 40 Street	SW 104 Street	6L
SW 117 Avenue	SW 136 Street	SW 184 Street	6L
SW 117 Avenue	Quail Roost Dr	US 1	4L
SW 137 Avenue	SW 56 Street	SW 72 Street	6L
NW 106 Street	HEFT	NW 116 Way	6L
NW 116 Way	NW 106 Street	US 27	6L
Hialeah Gardens Blvd	US 27	NW 138 Street	6L
SW 136 Street	Harrison Street	SW 112 Avenue	Bridge
SW 102 Avenue	Over Cutler Drain		Bridge
SW 87 Avenue	SW 163 Terrace	SW 164 Street	Bridge
SW 77 Avenue	SW 159 Terrace	SW 160 Terrace	Bridge
SW 77 Avenue	SW 173 Street	SW 174 Street	Bridge

Arterial Grid Network Analysis Phase II - a follow-up study, this analysis updated information on the existing arterial network conditions and assessed 19 projects seeking to improve network connectivity and reduce congestion. These recommendations focused on prioritizing alternative routes, seeking multimodal enhancement opportunities like new transit routes, and recommended bicycle lane and sidewalk projects.

Bus Rapid Transit (BRT) Implementation Plan along Transit Corridors 2014 - creates a plan to implement Bus Rapid Transit (BRT) along the following transit corridors: North Corridor, East-West Corridor (SR-836 and Flagler Street), Kendall Corridor, and Douglas Road Corridor.

Bus Rapid Transit Opportunities Study 2003 - this study looked at the potential for implementing low-cost BRT service on major and secondary corridors. The study also identified the most feasible types of BRT improvements. The corridors were evaluated and tiered for priority. **Table 2-2** below depicts the summary of the study.

Table 2-2: Summary of Bus Rapid Transit Opportunities Study 2003

A	B	C	D	E	F	G	H
Proposed BRT Corridor (Rank Order Based on Overall Transit Potential Score in Column F)	**Riders per Mile Score**	**Residential + Employment Score**	**Household Zero-Auto Ownership Score**	**Household Income Poverty Score**	**Overall Transit Potential Score /1**	**Implement Timeframe**	**Tier Inclus ion**
Flagler Street	88.5	99.1	93.0	91.2	92.97	2005 to 2010	I
NW 79th Street	89.0	85.5	100.0	85.5	90.00	2005 to 2010	I
NW 7th Avenue	100.0	82.2	80.3	86.7	87.29	2005 to 2010	I
US 1 – Biscayne Boulevard	84.0	80.5	93.6	83.0	85.26	2005 to 2010	I
Coral Way	29.4	88.6	87.9	100.0	76.48	2005 to 2010	I
Miami Gardens Drive	50.1	90.3	62.6	86.5	72.39	2011 to 2030	II
LeJeune Road	39.8	78.5	77.3	67.0	65.65	2005 to 2010	I
SW 152nd Street	59.9	19.8	87.1	86.7	63.36	2011 to 2030	II
SW 40th Street	22.0	68.8	79.7	79.3	62.46	2011 to 2030	II
SW 107th Avenue	6.5	100.0	56.9	79.6	60.74	2005 to 2010	I
W 49th Street	31.5	59.5	63.0	84.3	59.59	2005 to 2010	I
Kendall Drive	48.9	61.5	59.2	64.5	58.53	2005 to 2010	I
NW 135th Street	17.2	69.0	66.6	77.7	57.63	2011 to 2030	II
SW 87th Avenue	12.8	58.2	68.4	76.0	53.84	2005 to 2010	I
SW 137th Avenue	5.1	48.3	64.4	89.1	51.74	2005 to 2010	I

2.1 TPO Coordination

Using the information collected from literature review, the study team prepared a draft map of preliminary corridor alignments for consideration. In addition to the corridors identified in the literature review, the study team also proposed potential new alignments that had not been studied previously, but which could serve as potential linkages to areas of new development in Miami-Dade County.

This map was evaluated in a workshop with TPO staff in May 2023. The purpose of this meeting was to narrow the potential corridors to a list of 20 that would advance for further evaluation in this study. During the workshop, the merits of different alignments were debated, potential corridors were extended, shortened, or deleted, based upon the consensus of the workshop attendees. A map depicting the work product of the workshop is depicted in **Figure 2-2.**

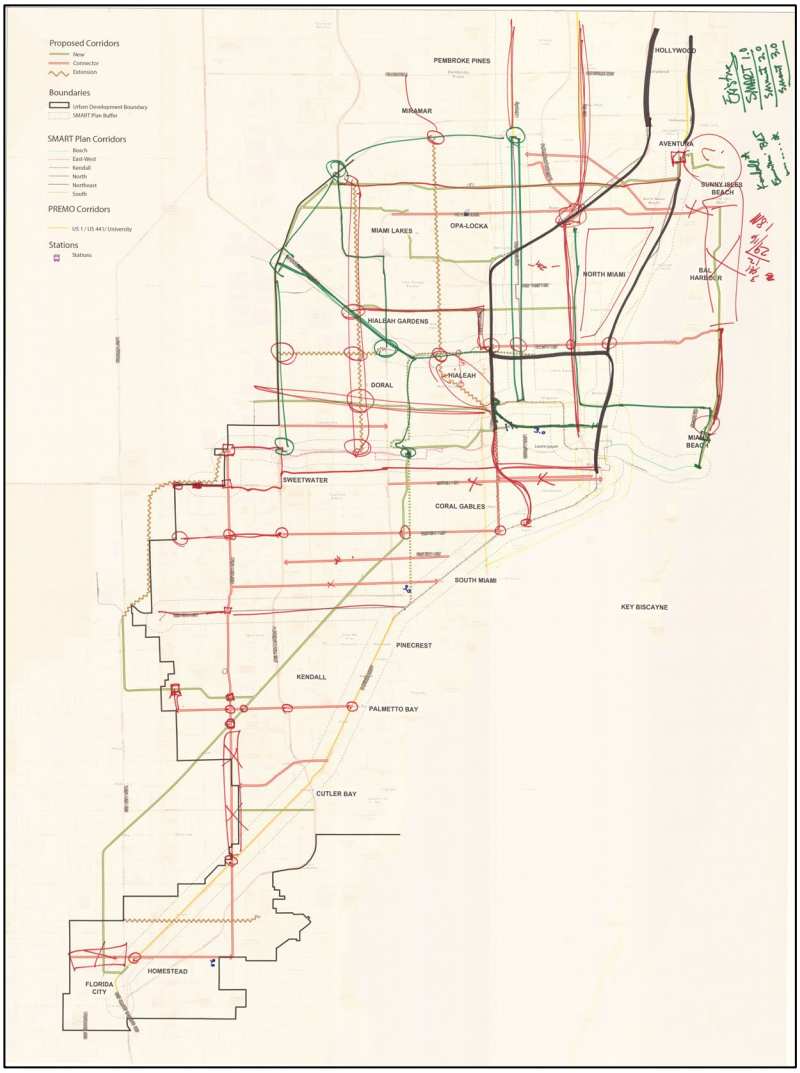

Figure 2-2: Scanned Map of Workshop Discussion

2.2 Outcome of the Corridor Selection Process

As a result of this workshop, the study team prepared a refined map that depicts the 20 corridors that were selected during the TPO workshop. After review by TPO staff, these corridors were carried forward into the next phase of the study – Data Collection. **Figure 2-3** depicts the refined corridor map product that was developed for the subsequent data collection phase.

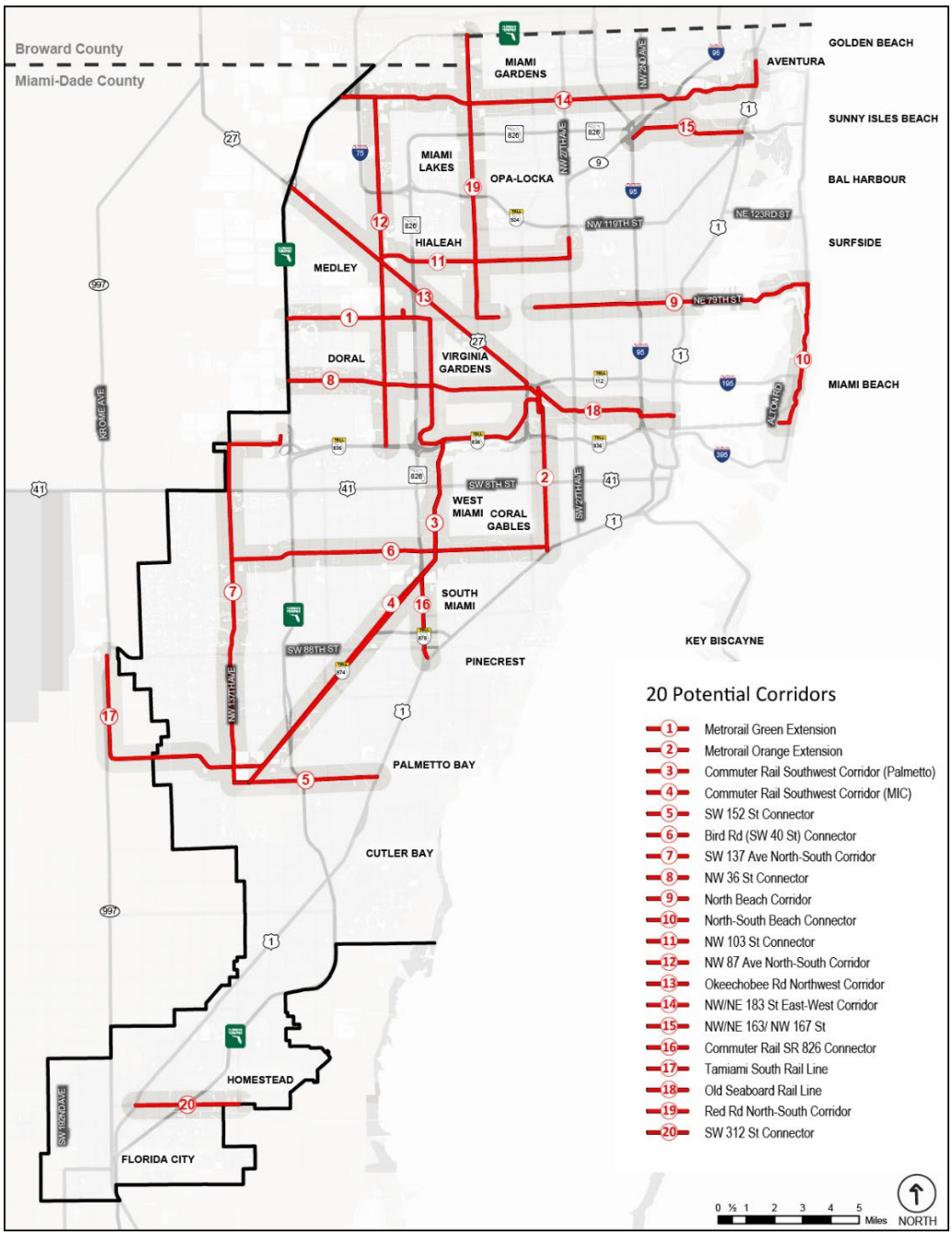

Figure 2-3: Proposed Corridors

CHAPTER 3 DATA COLLECTION

This chapter summarizes the data collection efforts conducted to understand existing and anticipated future conditions on the twenty (20) potential corridors. The data collected and considered for this study include:

- Existing Transit and Multimodal Connectivity
- Future Transit and Multimodal Connectivity
- Traffic
- Demographics
- Land Use

The tables listed below display the analytical results, and a set of maps illustrating the key elements which can be found in **Appendix A**.

Based on the data summarized in this chapter, a screening matrix is developed in next chapter to evaluate the potential future corridors and determine which corridors advance to the subsequent tasks of the study.

3.1 Transit and Multimodal Connectivity

3.1.1 Number of Miami-Dade Transit Bus Routes

The twenty (20) potential future corridors (referred to as potential corridors) are evaluated alongside the existing Miami-Dade County Department of Transportation and Public Works (DTPW) *Metrobus routes*. The data used in this analysis was obtained from *Miami-Dade County Open Data Hub* in August 2023. The county continuously maintains and updates the datasets used, and therefore the linked data may be different than the data used in this study. This is especially true for the bus routes layer, as this analysis was conducted prior to the Better Bus Network (BBN) implementation - a system-wide reconfiguration of DTPW bus routes implemented at the end of 2023 - the BBN route changes were not considered in this analysis.

A Geographic Information System (GIS) analysis is conducted to determine which DTPW routes interact with the potential corridors. DTPW routes were divided into two categories: routes that run along the corridor (traverse), and routes that intersect the corridors. Routes that align with the corridor for a distance exceeding one city block (approximately half-mile) are included in the count. The number of routes for each category is presented in **Table 3-1**.

3.1.2 Metrobus and Metrorail Ridership

Miami-Dade County Transportation and Public Works Ridership Technical Reports are collected to analyze average daily ridership information for various modes of transit system managed by

Miami-Dade County. Average Daily Ridership was derived for the month of October, which is used as a nominal month, as it occurs during the academic school year and does not include any major holidays. Average Daily Ridership was taken for bus routes identified in previous section, and Metrorail stations within a quarter mile of the corridors. Ridership for each potential corridor is then summed up to identify proposed corridor ridership. This information is detailed in **Table 3-2** and **Table 3-3**.

3.1.3 Connection to Other Existing Transit Services

The connectivity of each potential corridor is evaluated including its linkage with existing major transit services, such as *Tri-Rail*, *Broward County Transit*, and *Metrorail*, as well as future transit services such as *SMART 1.0 planned corridors*. The data of these services are obtained from *Miami-Dade County Open Data Hub* and *Broward County GeoHub* in August 2023. The number of connections with each potential corridor, including stops within a half-mile radius, is identified and presented in **Table 3-4.**

3.1.3.1 Tri-Rail

Tri-Rail is a commuter rail system serving southeast Florida, providing connectivity between Miami-Dade, Broward, and Palm Beach Counties. It offers an alternative transportation option to alleviate road congestion and promote more sustainable travel. Tri-Rail serves six stations in central and north Miami-Dade County. The number of Tri-Rail stations within a quarter-mile buffer of each potential corridor is listed in **Table 3-4.**

3.1.3.2 Broward County Transit

Broward County Transit (BCT) is the public transportation agency serving Broward County, the neighboring county adjacent to the north boundary of Miami-Dade County. Some of the BCT routes provide cross-system connectivity with transit stops in northern Miami-Dade County. BCT route alignments and stops are downloaded from *Broward County GeoHub* and stops within a quarter-mile buffer of each potential corridor are listed in **Table 3-4.**

3.1.3.3 Miami-Dade Metrorail

Metrorail is the heavy rail rapid transit system operated by Miami-Dade Transit. It comprises elevated tracks and stations, offering efficient transportation across neighborhoods and business areas, thereby reducing congestion. Twenty-three stations serving two routes comprise the Metrorail system. The alignments and stations data are obtained from *Miami-Dade County Open Data Hub* The number of connections between the proposed corridors and Miami-Dade Metrorail is identified based on existing stations (within a quarter-mile buffer of the potential corridor). This information is listed in **Table 3-4**.

3.1.3.4 SMART Plan Corridors (SMART 1.0)

The original SMART Plan corridors, described previously in the introduction, includes the corridors illustrated in **Table 3-4**. The number of connections between the potential future corridors and the SMART 1.0 corridors is identified within a quarter-mile buffer. This information is listed in **Table 3-4.**

3.1.4 First and Last Mile Connections

3.1.4.1 Multi-Use Trail Networks

Existing and planned pedestrian and bicycle facilities are obtained from *Miami-Dade County Open Data Hub*, and mapped based on the existing facility information and number of the Future Corridors 2.0 & 3.0 connections. Connections are defined as a facility that falls within a half-mile radius of each potential corridor. Note that this analysis does not include sidewalk features due to the limitation of the dataset. The bicycle and pedestrian facilities are divided by the total number of existing roadway miles within a half-mile radius of each potential corridor to create a ratio of bicycle and pedestrian infrastructure to roadways. The analysis results are summarized in **Table 3-5**.

3.1.4.2 Municipal Transit Services

The municipal transit services in Miami-Dade County consist of local mobility options that operate within individual municipalities, providing convenient transportation for residents and visitors within those areas. In some cases, the circulators cross municipal boundaries into neighboring jurisdictions. These services contribute to providing first/last mile solutions that help bridge the gap between the DTPW network while enhancing local mobility and reducing the reliance on personal vehicles. The alignment data was accessed from the *Miami-Dade County Transit Development Plan 2024-2033 Annual Update*. These systems do not identify stops as some of them operate as on-demand services with variable stop locations. This analysis is conducted by identifying any route running along or intersecting the proposed corridors as having a connection. The summary of this analysis is listed in **Table 3-5**.

Table 3-1: Number of Metrobus Bus Routes along Proposed Corridors

No.	Corridor Name	Corridor Length (Miles)	Number of Metrobus Routes Running Along Corridor	Number of Metrobus Intersecting Routes
1	Metrorail Green Extension	3.9	1	0
2	Metrorail Orange Extension	4.6	2	7
3	Commuter Rail Southwest Corridor (A) - Palmetto	19.0	6	14
4	Commuter Rail Southwest Corridor (B) - MIC	17.3	7	20
5	SW 152 St Connector	4.6	3	4
6	Bird Rd (SW 40 St) Connector	10.2	2	8
7	SW 137 Ave North-South Corridor	13.1	5	6
8	NW 36 St Connector	8.6	4	4
9	NE/NW 79 St (North Beach) Corridor	8.9	3	19
10	North-South Beach Connector	4.9	6	1
11	NW 103 St Connector	6.8	4	7
12	NW 87 Ave North-South Corridor	12.1	4	3
13	Okeechobee Rd Northwest Corridor	10.9	2	9
14	NW/NE 183 St East-West Corridor	14.2	13	4
15	NW/NE 163 / NW 167 St	3.6	8	1
16	Commuter Rail SR 826 Connector	2.6	0	16
17	Tamiami South Rail Line	8.3	0	1
18	Old Seaboard Rail Line	5.6	0	24
19	Red Rd North-South Corridor	9.6	3	5
20	SW 312 St Connector	3.3	1	1

Table 3-2: Average Daily Metrobus Ridership along Proposed Corridors (October 2018-2022)

No.	Corridor Name	2018 Metrobus Ridership	2019 Metrobus Ridership	2020 Metrobus Ridership	2021 Metrobus Ridership	2022 Metrobus Ridership	Avg 5-yr Metrobus Ridership
1	Metrorail Green Extension	1,674	1,496	875	1,054	1,845	1,389
2	Metrorail Orange Extension	3,649	3,863	2,379	3,054	4,110	3,411
3	Commuter Rail Southwest Corridor (Palmetto)	6,702	6,619	2,428	2,820	6,013	4,916
4	Commuter Rail Southwest Corridor (MIC)	5,778	5,687	1,412	1,397	4,417	3,738
5	SW 152 St Connector	5,021	4,866	2,614	3,220	4,883	4,121
6	Bird Rd (SW 40 St) Connector	2,685	2,559	1,572	1,887	3,012	2,343
7	SW 137 Ave North-South Corridor	8,519	8,040	4,370	5,732	9,356	7,203
8	NW 36 St Connector	7,294	7,690	4,286	4,883	7,739	6,378
9	North Beach Corridor	7,544	7,955	6,173	7,012	8,753	7,487
10	North-South Beach Connector	23,460	24,713	18,305	19,610	27,331	22,684
11	NW 103 St Connector	12,849	12,949	7,565	8,823	12,811	10,999
12	NW 87 Ave North-South Corridor	6,629	6,401	3,431	3,474	6,342	5,255
13	Okeechobee Rd Northwest Corridor	2,347	2,288	1,333	1,795	3,095	2,172
14	NW/NE 183 St East-West Corridor	37,185	37,108	22,927	26,408	38,378	32,401
15	NW/NE 163/ NW 167 St	18,710	18,705	12,373	15,034	20,525	17,069
16	Commuter Rail SR 826 Connector	-	-	-	-	-	-
17	Tamiami South Rail Line	-	-	-	-	-	-
18	Old Seaboard Rail Line	-	-	-	-	-	-
19	Red Rd North-South Corridor	5,192	5,232	3,136	3,287	4,815	4,332
20	SW 312 St Connector	2,638	2,738	1,632	1,623	2,650	2,256

Table 3-3: Average Daily Weekday Ridership of Metrorail Stations along Proposed Corridors

No.	Corridor Name	2018 Metrobus Ridership	2019 Metrobus Ridership	2020 Metrobus Ridership	2021 Metrobus Ridership	2022 Metrobus Ridership	Avg 5-yr Metrobus Ridership
1	Metrorail Green Extension	1,470	1,449	739	876	1,070	1,121
2	Metrorail Orange Extension	5,466	5,030	2,274	2,907	3,785	3,892
3	Commuter Rail Southwest Corridor (Palmetto)	1,470	1,449	739	876	1,070	1,121
4	Commuter Rail Southwest Corridor (MIC)	1,653	1,578	556	722	1,124	1,127
5	SW 152 St Connector	-	-	-	-	-	-
6	Bird Rd (SW 40 St) Connector	3,813	3,452	1,718	2,185	2,661	2,766
7	SW 137 Ave North-South Corridor	-	-	-	-	-	-
8	NW 36 St Connector	1,653	1,578	556	722	1,124	1,127
9	North Beach Corridor	2,765	2,517	1,555	1,691	2,052	2,116
10	North-South Beach Connector	-	-	-	-	-	-
11	NW 103 St Connector	-	-	-	-	-	-
12	NW 87 Ave North-South Corridor	-	-	-	-	-	-
13	Okeechobee Rd Northwest Corridor	2,793	2,756	1,186	1,353	1,772	1,972
14	NW/NE 183 St East-West Corridor	-	-	-	-	-	-
15	NW/NE 163/ NW 167 St	-	-	-	-	-	-
16	Commuter Rail SR 826 Connector	1,653	1,578	556	722	1,124	1,127
17	Tamiami South Rail Line	-	-	-	-	-	-
18	Old Seaboard Rail Line	2,566	2,328	1,053	1,164	1,716	1,765
19	Red Rd North-South Corridor	1,425	1,265	782	801	1,026	1,060
20	SW 312 St Connector	-	-	-	-	-	-

Table 3-4: Number of Connections between Proposed Corridors and Other Transit Systems

No.	Corridor Name	Number of Tri-Rail Connections	Number of BCT Connections	Number of Connections with Metrorail	Number of Connections with SMART 1.0	Total Connected Transit Modes (0 to 4)
1	Metrorail Green Extension	0	0	1	0	1
2	Metrorail Orange Extension	1	0	2	1	3
3	Commuter Rail Southwest Corridor (Palmetto)	0	0	1	2	2
4	Commuter Rail Southwest Corridor (MIC)	1	0	1	2	3
5	SW 152 St Connector	0	0	0	1	1
6	Bird Rd (SW 40 St) Connector	0	0	1	0	1
7	SW 137 Ave North-South Corridor	0	0	0	2	1
8	NW 36 St Connector	1	0	1	1	3
9	North Beach Corridor	1	0	2	2	3
10	North-South Beach Connector	0	0	0	1	1
11	NW 103 St Connector	0	0	0	1	1
12	NW 87 Ave North-South Corridor	0	0	0	1	1
13	Okeechobee Rd Northwest Corridor	1	0	2	1	3
14	NW/NE 183 St East-West Corridor	0	5	0	2	2
15	NW/NE 163/ NW 167 St	1	2	0	1	3
16	Commuter Rail SR 826 Connector	0	0	1	2	2
17	Tamiami South Rail Line	0	0	0	0	0
18	Old Seaboard Rail Line	1	3	2	3	4
19	Red Rd North-South Corridor	0	0	1	0	1
20	SW 312 St Connector	0	0	0	1	1

Table 3-5: Number of Connections between Proposed Corridors and First/Last Mile Services

No.	Corridor Name	Number of Connections with Municipal Transit Services	Miles of Existing Pedestrian and Bike Facilities	Miles of Planned Pedestrian and Bike Facilities	Miles of Roadway (Within half-mile Buffer)	Future Ped/Bike Facility to Existing Roadway Mileage Ratio
1	Metrorail Green Extension	4	43	28	55	1.28
2	Metrorail Orange Extension	6	18	42	117	0.51
3	Commuter Rail Southwest Corridor (Palmetto)	3	25	69	312	0.30
4	Commuter Rail Southwest Corridor (MIC)	1	16	72	293	0.30
5	SW 152 St Connector	0	11	16	84	0.33
6	Bird Rd (SW 40 St) Connector	3	42	55	223	0.43
7	SW 137 Ave North-South Corridor	0	16	59	225	0.33
8	NW 36 St Connector	4	30	57	138	0.63
9	North Beach Corridor	4	26	67	157	0.59
10	North-South Beach Connector	3	34	81	52	2.20
11	NW 103 St Connector	1	1	22	132	0.18
12	NW 87 Ave North-South Corridor	4	34	64	185	0.54
13	Okeechobee Rd Northwest Corridor	2	10	84	196	0.48
14	NW/NE 183 St East-West Corridor	7	32	75	259	0.41
15	NW/NE 163/ NW 167 St	2	10	35	95	0.47
16	Commuter Rail SR 826 Connector	0	14	19	61	0.54
17	Tamiami South Rail Line	0	29	38	69	0.96
18	Old Seaboard Rail Line	1	4	55	121	0.49
19	Red Rd North-South Corridor	2	3	27	159	0.19
20	SW 312 St Connector	1	12	23	67	0.52

3.2 Traffic

3.2.1 Number of Lanes

The number of through lanes per direction along the suggested corridors was determined through a Google Earth assessment, cross-referenced with Google Street View when aerial imagery if a specific section was outdated. This compilation is presented in **Table 3-6.** The table also depicts a calculation showing the percentage of each corridor that is three or more lanes wide, and/or is a rail corridor.

3.2.2 Congestion

Annual Average Daily Traffic (AADT), data was gathered from Miami-Dade County traffic stations and *FDOT Florida Traffic Online* in August 2023. This dataset is being used as a representation of traffic congestion on or near the corridors evaluated. Data from both sources was averaged and presented in **Table 3-7**. Also, Level of service (LOS) data was calculated by using 2019 data and 2015 capacity (SERPM 8.0) to estimate the volume over capacity ratio (V/C) and used as a base to estimate LOS. LOS data can be viewed in **Table 3-8**.

Table 3-6: Proposed Corridors and Roadway Number of Lanes Information

No.	Corridor Name	Corridor Length (Miles)	1 Lane (Miles)	2 Lanes (Miles)	3 Lanes (Miles)	4 Lanes (Miles)	Rail (Miles)	Percentage of corridor length that is 3+ lanes (or Rail)
1	Metrorail Green Extension	3.9	0.2	0.3	3.5	-	-	88%
2	Metrorail Orange Extension	4.6	0.2	4.5	-	-	-	0%
3	Commuter Rail Southwest Corridor (Palmetto)	19.0	0.1	0.5	5.1	-	13.0	95%
4	Commuter Rail Southwest Corridor (MIC)	17.3	0.2	-	-	-	17.2	99%
5	SW 152 St Connector	4.6	0.1	2.6	1.8	0.1	-	41%
6	Bird Rd (SW 40 St) Connector	10.2	-	3.9	6.1	0.3	-	62%
7	SW 137 Ave North-South Corridor	13.1	0.1	4.8	8.3	-	-	63%
8	NW 36 St Connector	8.6	-	0.5	7.5	0.2	0.5	95%
9	North Beach Corridor	8.9	0.3	1.6	7.0	-	-	79%
10	North-South Beach Connector	4.9	0.4	1.6	2.9	-	-	59%
11	NW 103 St Connector	6.8	0.1	3.2	3.4	-	-	50%
12	NW 87 Ave North-South Corridor	12.1	-	9.9	2.3	0.1	-	19%
13	Okeechobee Rd Northwest Corridor	10.9	0.6	0.2	9.7	0.1	-	90%
14	NW/NE 183 St East-West Corridor	14.2	0.1	5.9	7.6	0.6	-	58%
15	NW/NE 163/ NW 167 St	3.6	0.3	3.2	0.1	-	-	2%
16	Commuter Rail SR 826 Connector	2.6	-	0.5	1.1	1.0	-	79%
17	Tamiami South Rail Line	8.3	-	-	-	-	8.3	100%
18	Old Seaboard Rail Line	5.6	0.8	1.7	-	-	2.7	49%
19	Red Rd North-South Corridor	9.6	-	0.7	8.8	0.1	-	92%
20	SW 312 St Connector	3.3	0.1	2.5	0.7	-	-	20%

Table 3-7: AADT Along Proposed Corridors

No.	Corridor Name	Highest AADT
1	Metrorail Green Extension	42,500
2	Metrorail Orange Extension	24,500
3	Commuter Rail Southwest Corridor (Palmetto)	118,000
4	Commuter Rail Southwest Corridor (MIC)	118,000
5	SW 152 St Connector	72,000
6	Bird Rd (SW 40 St) Connector	70,000
7	SW 137 Ave North-South Corridor	52,500
8	NW 36 St Connector	66,000
9	North Beach Corridor	45,000
10	North-South Beach Connector	34,500
11	NW 103 St Connector	48,500
12	NW 87 Ave North-South Corridor	47,500
13	Okeechobee Rd Northwest Corridor	62,500
14	NW/NE 183 St East-West Corridor	80,500
15	NW/NE 163/ NW 167 St	61,500
16	Commuter Rail SR 826 Connector	125,500
17	Tamiami South Rail Line	31,000
18	Old Seaboard Rail Line	20,200
19	Red Rd North-South Corridor	53,500
20	SW 312 St Connector	33,000

Table 3-8: LOS Along Proposed Corridors

No.	Corridor Name	Miles of LOS A	Miles of LOS B	Miles of LOS C	Miles of LOS D	Miles of LOS E	Miles of LOS F	Miles Without LOS Data	Percentage of LOS D or Below
1	Metrorail Green Extension	2.2	0	0	0.7	0	0	1.0	17%
2	Metrorail Orange Extension	2.3	2.0	0	0	0	0	0.4	0%
3	Commuter Rail Southwest Corridor (Palmetto)	2.9	2.6	4.1	2.8	0	0.5	6.2	17%
4	Commuter Rail Southwest Corridor (MIC)	1.9	1.0	3.7	1.6	0.9	0.3	7.2	16%
5	SW 152 St Connector	2.4	1.8	0	0	0.4	0	0	8%
6	Bird Rd (SW 40 St) Connector	2.5	1.7	2.0	2.0	1.0	0.9	0.1	39%
7	SW 137 Ave North-South Corridor	8.5	3.8	0.6	0	0	0	0.2	0%
8	NW 36 St Connector	2.2	3.1	1.5	0.3	0	1.0	0.6	15%
9	North Beach Corridor	1.9	2.1	0.8	3.1	0	0	1.1	35%
10	North-South Beach Connector	1.3	1.0	0	1.4	0	0.9	0.3	47%
11	NW 103 St Connector	2.8	2.0	0.2	0	1.3	0.5	0	26%
12	NW 87 Ave North-South Corridor	7.3	0	0.2	1.2	0	0	3.4	10%
13	Okeechobee Rd Northwest Corridor	5.0	1.5	0	2.4	1.2	0.4	0.5	36%
14	NW/NE 183 St East-West Corridor	6.1	1.1	1.0	2.1	0.5	2.5	0.9	36%
15	NW/NE 163/ NW 167 St	0.1	0	1.6	1.5	0	0.1	0.3	44%
16	Commuter Rail SR 826 Connector	0	0	0.6	1.1	0.2	0.7	0	79%
17	Tamiami South Rail Line	0	0	0	0	0	0	5.6	33%
18	Old Seaboard Rail Line	1.0	0.9	0	0	0	0.3	3.3	6%
19	Red Rd North-South Corridor	3.6	2.3	1.4	1.6	0	0.1	0.6	18%
20	SW 312 St Connector	2.8	0	0.6	0	0	0	0	0%

3.3 Demographics

3.3.1 Population and Employment Data

The Miami-Dade TPO is preparing updated demographic projections that will be used to inform the Southeast Regional Planning Model (SERPM) version 9. These projections use 2020 as a baseline and project to the future year of 2050. Household and Employment data was provided by the TPO, and is summarized in **Table 3-9** and **Table 3-10.** Employment and Population data were summed across all Traffic Analysis Zones (TAZs) that fell within a half-mile of each corridor. It should be noted that if a TAZ is not completely within a half-mile buffer, the percentage of TAZ area which is in the buffer area is calculated and multiplied into the demographic data to represent an estimate of population/employment that falls within the buffer. These numbers are then normalized by acre. An additional calculation is conducted to determine the percent increase in population and employment density between 2020 and 2050. This is done to estimate the anticipated total increase in density along these corridors.

3.3.2 Projected 2050 Transit Dependent Population

The 2050 projections were used to identify the number of low-income households and zero car households. These two measures are serving as markers for transit dependent populations along each corridor. The data on transit dependent households was extracted and is shown in **Table 3-11**.

Table 3-9: Proposed Corridor Population Data

No.	Corridor Name	2020 Population	2050 Population	2020 Population Density per acre	2050 Population Density per acre	% Population Change From 2020 to 2050
1	Metrorail Green Extension	14,460	16,809	5.5	6	16%
2	Metrorail Orange Extension	44,973	57,432	14.6	19	28%
3	Commuter Rail Southwest Corridor (Palmetto)	59,063	76,869	5.3	7	30%
4	Commuter Rail Southwest Corridor (MIC)	64,351	82,242	6.3	8	28%
5	SW 152 St Connector	22,080	28,369	7.3	9	28%
6	Bird Rd (SW 40 St) Connector	59,063	72,018	9.4	11	22%
7	SW 137 Ave North-South Corridor	73,540	89,907	9.3	11	22%
8	NW 36 St Connector	27,356	33,958	5.1	6	24%
9	North Beach Corridor	56,803	66,642	10.3	12	17%
10	North-South Beach Connector	31,293	35,692	9.9	11	14%
11	NW 103 St Connector	60,978	73,565	14.3	17	21%
12	NW 87 Ave North-South Corridor	65,073	78,980	8.8	11	21%
13	Okeechobee Rd Northwest Corridor	56,896	67,527	8.6	10	19%
14	NW/NE 183 St East-West Corridor	100,808	123,155	11.8	14	22%
15	NW/NE 163/ NW 167 St	27,544	35,157	11.1	14	28%
16	Commuter Rail SR 826 Connector	16,417	21,374	8.7	11	30%
17	Tamiami South Rail Line	21,236	24,780	4.1	5	17%
18	Old Seaboard Rail Line	46,032	75,177	13.6	22	63%
19	Red Rd North-South Corridor	58,975	72,127	9.9	12	22%
20	SW 312 St Connector	23,313	28,663	10.1	12	23%

Table 3-10: Proposed Corridor Employment Data

No.	Corridor Name	2020 Employment	2050 Employment	2020 Employment Density	2050 Employment Density	% Employment Change From 2020 to 2050
1	Metrorail Green Extension	9,510	11,302	3.6	4	19%
2	Metrorail Orange Extension	55,631	65,725	18.1	21	18%
3	Commuter Rail Southwest Corridor (Palmetto)	88,393	102,973	7.9	9	16%
4	Commuter Rail Southwest Corridor (MIC)	76,477	88,455	7.5	9	16%
5	SW 152 St Connector	8,923	10,553	2.9	3	18%
6	Bird Rd (SW 40 St) Connector	35,406	42,768	5.7	7	21%
7	SW 137 Ave North-South Corridor	27,025	31,388	3.4	4	16%
8	NW 36 St Connector	57,078	64,324	10.7	12	13%
9	North Beach Corridor	21,183	28,835	3.9	5	36%
10	North-South Beach Connector	35,212	46,179	11.1	15	31%
11	NW 103 St Connector	28,224	33,358	6.6	8	18%
12	NW 87 Ave North-South Corridor	59,340	68,451	8.1	9	15%
13	Okeechobee Rd Northwest Corridor	43,710	52,806	6.6	8	21%
14	NW/NE 183 St East-West Corridor	37,822	47,367	4.4	6	25%
15	NW/NE 163/ NW 167 St	15,316	18,796	6.2	8	23%
16	Commuter Rail SR 826 Connector	16,956	20,711	9.0	11	22%
17	Tamiami South Rail Line	7,781	9,054	1.5	2	16%
18	Old Seaboard Rail Line	40,205	67,546	11.9	20	68%
19	Red Rd North-South Corridor	25,863	33,294	4.4	6	29%
20	SW 312 St Connector	5,110	6,846	2.2	3	34%

Table 3-11: Proposed Corridor Transit Dependent Population Data

No.	Corridor Name	Total Number of Households (2050)	Number of Zero Car Households (2050)	Number of Low-Income Households (2050)	Percentage of Zero Car Households (2050)	Percentage of Low-Income Households (2050)
1	Metrorail Green Extension	11,686	897	3,341	8%	29%
2	Metrorail Orange Extension	25,921	2,929	7,615	11%	29%
3	Commuter Rail Southwest Corridor (Palmetto)	58,459	7,015	18,285	13%	32%
4	Commuter Rail Southwest Corridor (MIC)	57,779	6,326	17,665	10%	30%
5	SW 152 St Connector	18,355	2,719	6,147	14%	33%
6	Bird Rd (SW 40 St) Connector	37,218	2,920	10,467	8%	28%
7	SW 137 Ave North-South Corridor	51,397	4,801	16,204	7%	30%
8	NW 36 St Connector	19,427	2,827	6,463	12%	32%
9	North Beach Corridor	42,965	7,165	12,831	16%	30%
10	North-South Beach Connector	24,052	4,656	6,639	20%	27%
11	NW 103 St Connector	47,980	5,476	14,663	11%	31%
12	NW 87 Ave North-South Corridor	46,330	3,800	13,676	8%	29%
13	Okeechobee Rd Northwest Corridor	43,374	5,029	13,306	12%	31%
14	NW/NE 183 St East-West Corridor	78,828	7,099	23,787	9%	30%
15	NW/NE 163/ NW 167 St	22,261	2,730	6,944	13%	32%
16	Commuter Rail SR 826 Connector	13,396	912	3,702	7%	28%
17	Tamiami South Rail Line	15,189	933	4,185	6%	27%
18	Old Seaboard Rail Line	47,757	9,325	14,204	20%	31%
19	Red Rd North-South Corridor	39,187	4,344	12,213	11%	31%
20	SW 312 St Connector	19,754	2,462	6,056	12%	65%

3.4 Land Use

3.4.1 TOD Supportive Future Land Use

Future land use data was obtained from the *Miami-Dade County Open Data Hub* in August 2023. Commercial, Mixed Use, and High-Density Residential future land use designations were identified as supportive of transit-oriented development (TOD). The acreage of these land uses within the half-mile buffer of each corridor was summarized and presented in **Table 3-12**.

3.4.2 Infill Opportunities

Vacant land was mapped with a summary of acres per corridor presented in **Table 3-13.** An additional assessment looked at highly redevelopable parcels. These were identified as parcels over one acre while having an assessed building to land value ratio less than one. That is, parcels where the land is more valuable than the structures that sit on the land. These values were obtained from the Florida Department of Revenue website. Parcels were filtered to those that were greater than one acre in size to identify areas that are more likely to be redeveloped into TOD sites in the future.

Table 3-12: Proposed Corridor Future Lande Use

No.	Corridor Name	Commercial Acreage	Mixed Use Acreage	High-Density Residential Acreage	Percentage of Commercial	Percentage of Mixed Use	Percentage of High-Density Residential
1	Metrorail Green Extension	63	41	32	2%	2%	1%
2	Metrorail Orange Extension	1,502	2	1,051	49%	0%	34%
3	Commuter Rail Southwest Corridor (Palmetto)	1,328	615	851	12%	6%	8%
4	Commuter Rail Southwest Corridor (MIC)	2,614	674	703	26%	7%	7%
5	SW 152 St Connector	512	55	11	17%	2%	0%
6	Bird Rd (SW 40 St) Connector	1,817	43	656	29%	1%	10%
7	SW 137 Ave North-South Corridor	583	72	389	7%	1%	5%
8	NW 36 St Connector	2,285	477	175	43%	9%	3%
9	North Beach Corridor	1,555	48	887	28%	1%	16%
10	North-South Beach Connector	1,149	0	383	36%	0%	12%
11	NW 103 St Connector	2,502	0	1,593	59%	0%	37%
12	NW 87 Ave North-South Corridor	1,489	206	1,304	20%	3%	18%
13	Okeechobee Rd Northwest Corridor	3,685	0	1,402	55%	0%	21%
14	NW/NE 183 St East-West Corridor	1,474	61	680	17%	1%	8%
15	NW/NE 163/ NW 167 St	728	51	293	29%	2%	12%
16	Commuter Rail SR 826 Connector	174	12	226	9%	1%	12%
17	Tamiami South Rail Line	55	0	18	1%	0%	0%
18	Old Seaboard Rail Line	1,565	0	739	46%	0%	22%
19	Red Rd North-South Corridor	2,067	7	444	35%	0%	7%
20	SW 312 St Connector	449	50	204	19%	2%	9%

Table 3-13: Proposed Corridor Infill Opportunities

No.	Corridor Name	Vacant Parcels Acreage	Parcels Acreage	Developed Parcels Acreage	Highly Redevelopable Parcels Acreage	Percentage of Vacant Parcels	Percentage of Highly Redevelopable Parcels
1	Metrorail Green Extension	1,014	2,783	1,470	1,070	36%	73%
2	Metrorail Orange Extension	248	2,428	2,145	437	10%	20%
3	Commuter Rail Southwest Corridor (Palmetto)	1,154	11,815	9,612	5,082	10%	53%
4	Commuter Rail Southwest Corridor (MIC)	1,270	12,166	9,964	4,507	10%	45%
5	SW 152 St Connector	231	4,177	3,777	2,209	6%	58%
6	Bird Rd (SW 40 St) Connector	232	5,257	4,971	1,200	4%	24%
7	SW 137 Ave North-South Corridor	962	9,496	6,082	2,452	10%	40%
8	NW 36 St Connector	389	8,858	7,667	2,554	4%	33%
9	North Beach Corridor	577	3,513	2,823	749	16%	27%
10	North-South Beach Connector	99	2,463	2,313	248	4%	11%
11	NW 103 St Connector	320	3,486	3,106	633	9%	20%
12	NW 87 Ave North-South Corridor	1,591	7,186	4,996	1,654	22%	33%
13	Okeechobee Rd Northwest Corridor	909	7,091	5,953	3,329	13%	56%
14	NW/NE 183 St East-West Corridor	1,337	13,808	11,848	7,725	10%	65%
15	NW/NE 163/ NW 167 St	191	3,911	3,694	2,511	5%	68%
16	Commuter Rail SR 826 Connector	117	1,369	1,209	543	9%	45%
17	Tamiami South Rail Line	302	11,130	10,118	2,211	3%	22%
18	Old Seaboard Rail Line	447	2,965	2,443	732	15%	30%
19	Red Rd North-South Corridor	801	5,397	4,477	1,277	15%	29%
20	SW 312 St Connector	647	2,372	1,562	356	27%	23%

CHAPTER 4 TIER 1 ANALYSIS – CORRIDOR SCREENING MATRIX

This section describes the efforts undertaken to screen the 20 corridors selected for this study, ranks them based on their performance on the various data points as summarized in Chapter 3, and provides recommendations for the corridors that advance to a final Tier 2 analysis.

Overall, the data collected was organized into categories for organizational purposes. The datasets were normalized for corridor length to allow for an equal comparison. The corridors were ranked in a scoreboard, then different scenarios were formulated to weigh the values of the data categories. The scenario development process was coordinated during a workshop meeting. Based on this analysis, groupings of corridors were formulated based on how the corridors performed in the different scenarios. A final screening was developed to make a final selection of the eight advancing corridors.

4.1 Evaluation Criteria

4.1.1 Twenty Criteria in Five Categories

The data collected in the previous section has been normalized into 20 criteria under five categories for further analysis including:

1) Transit
    - Metrobus – Number of Routes Runing Along corridor
    - Metrobus – Number of Routes Intersecting corridor
    - Ridership - Metrobus and Metrorail
2) Multimodal
    - Count of Connected Transit Mode
    - First/Last Mile – Number of Municipal Transit Services Connected
    - First/Last Mile – Ratio of Ped/Bike Facilities
3) Traffic/Infrastructure
    - Annual Average Daily Traffic (AADT)
    - Level of Service (LOS)
    - Percentage of Streets with 3 or More Lanes
4) Socioeconomic
    - Population - 2050 Density
    - Population - 2020 to 2050 Population Increase Rate
    - Employment - 2050 Density
    - Employment - 2020 to 2050 Employment Increase Rate
    - Equity - 2050 Percentage of Zero-Vehicle Households
    - Equity - 2050 Percentage of Low-Income Households

5) Land Use
    - Percentage of Commercial Land Use
    - Percentage of Mixed-Use Land Use
    - Percentage of High-Density Residential Land Use
    - Redevelopment Potential - Percentage of Vacant Land
    - Redevelopment Potential - Percentage of Land with Low Building-to-Land Ratio

The data listed above was compiled into a screening matrix, which was then paired with a scoring system that was used to compare the performance of each corridor. For each criterion, the corridor with the best performance gets the highest score. The detailed data description and justification for each criterion can be found in **Table 4-1.**

Table 4-1: Evaluation Criteria and Justification

Category	No	Criteria	Data	Scoring	Justification
Transit (3 metrics)	1	**Metrobus - Routes Runing Along**	Number of Metrobus routes running along the proposed corridor (minimum 1 block).	Higher Value, Higher Scores	More routes on a corridor is more important because routes can be consolidated when replaced by a rapid transit service.
	2	**Metrobus - Routes Intersecting**	Number of Metrobus routes intersecting the proposed corridor.	Higher Value, Higher Scores	
	3	**Ridership - Metrobus and Metrorail**	Within the half-mile buffer, sum of: 1. Avg. Daily Metrobus Routes (running along) Ridership (avg 5 years, 2018-2022), 2. Avg. Daily Metrorail Station Ridership (avg 5 years, 2018-2022).	Higher Value, Higher Scores	Ridership demonstrates current transit demand for the corridor. Higher ridership means high demand.
Multimodal (3 metrics)	4	**Count of Connected Transit Modes**	Within quarter-mile buffer (walkable), Count of connected transit modes (Y/N) 1. Tri-Rail (Station) 2. BCT (Bus stop) 3. Metrorail (Station) 4. SMART 1.0 (Intersecting)	Higher Value, Higher Scores Use absolute value of count, not rank	This is a measure of the multimodality of each of the corridors. Each mode on the corridor is counted one time only.
	5	**First/Last Mile - Municipal Services**	Number of municipal services connected	Higher Value, Higher Scores	Municipal Service is a add-up to First/Last Mile accessibility.
	6	**First/Last Mile - Ped/bike facilities**	Bike and Ped facilities (miles) ratio to roadway miles within ½ mile buffer	Higher Value, Higher Scores	Walkability / Bikeability.
Traffic / Infrastructure (3 metrics)	7	**Average Annual Daily Traffic (AADT)**	Highest AADT	Higher Value, Higher Scores	The highest AADT within the corridor indicates current traffic demand.
	8	**Level of Service (LOS)**	Percentage of corridor length that is LOS D or below	Lower Value, Higher Scores	This is a stand-in for corridor LOS.
	9	**Lanes**	Percentage of corridor length that is 3+ lanes (or rail)	Higher Value, Higher Scores	This is a stand-in for corridor width.

Category	No	Criteria	Data	Scoring	Justification
Socioeconomic (6 metrics)	10	**Population - 2050 Density**	Density calculated based on 2050 total population within the corridor half-mile buffer area.	Higher Value, Higher Scores	More population/employment, more demand. Future value is more important than current value.
	11	**Population - Change 2020 to 2050**	Population Increase Rate = [(2050-2020)/2020]*100%	Higher Value, Higher Scores	
	12	**Employment - 2050 Density**	Density calculated based on 2050 total employment within the corridor half-mile buffer area.	Higher Value, Higher Scores	
	13	**Employment - Change 2020 to 2050**	Employment Increase Rate = [(2050-2020)/2020]*100%	Higher Value, Higher Scores	
	14	**Equity - % 2050 Zero-Vehicle Households**	Percentage of Zero-Vehicle Households 2050	Higher Value, Higher Scores	Zero-vehicle / low-income households are representative measures of equity demographics that are typically more reliant on public transit.
	15	**Equity - % 2050 Low-Income Households**	Percentage of Low-Income Households 2050 (50% County Median Household Income)	Higher Value, Higher Scores	
Land Use (5 metrics)	16	**% Commercial Land Use**	Commercial Land Use – percent of area within ½ mile	Higher Value, Higher Scores	Commercial, mixed-use, high density residential land use has higher potential for TOD development.
	17	**% Mixed-Use Land Use**	Mixed-Use Land Use – percent of area within ½ mile	Higher Value, Higher Scores	
	18	**% High Density Residential Land Use**	High Density Residential Land Use – percent of area within ½ mile	Higher Value, Higher Scores	
	19	**Redevelopment Potential - % Vacant Land**	Percentage of Vacant Land	Higher Value, Higher Scores	Vacant land could be considered more (re)developable.
	20	**Redevelopment Potential - % Low Building-to-Land Ratio Land**	Percentage of Highly Redevelopable Parcels (Acreage) (Building to Land Value Ratio < 1, Parcels 1 Acre or More, Building Value >$0)	Higher Value, Higher Scores	If the value of the building is less than the land value, the parcel is considered highly redevelopable. The more highly redevelopable parcels in the corridor buffer, more development opportunities.

4.1.2 Example of Criteria Normalization and Scoring - Population

Figure 4-1 illustrates the assignment of scores based upon rankings. The highest ranked corridor is assigned a score of 20, and the lowest a score of 1.

Performance by Criteria	Highest ---------- Lowest
Corridor Ranking	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Assigned Score	20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

Figure 4-1: Example of Corridor Scoring Methodology

A specific example is provided in **Table 4-2** for two criteria related to population. The raw data is the absolute value of population within a half-mile mile buffer of each corridor. This value is normalized as population density per acre. Each of the corridors is assigned a ranking for the criteria, ranging from 1 to 20. This value becomes the score for each corridor based on those criteria.

Table 4-2: Population Criteria Example

Corridor Info				Absolute Values		Normalized Values			Scores	
No.	Corridor Name	Corridor Length (Miles)	Corridor 1/2 mile Buffer (Acres)	Population (2020)	Population (2050)	Population Density (2020) (per Acre)	Population Density (2050) (per Acre)	Population change 2020 to 2050 (%)	Population density in 2050 Score (1-20)	Population change 2020 to 2050 Score (1-20)
1	Metrorail Green Extension	3.9	2,623	14,460	16,809	5.5	6.4	16%	3	2
2	Metrorail Orange Extension	4.6	3,073	44,973	57,432	14.6	18.7	28%	19	15
3	Commuter Rail Southwest Corridor (A) - Palmetto	19.0	11,143	59,063	76,869	5.3	6.9	30%	4	18
4	Commuter Rail Southwest Corridor (B) - MIC	17.3	10,227	64,351	82,242	6.3	8.0	28%	5	16
5	SW 152 St Connector	4.6	3,036	22,080	28,369	7.3	9.3	28%	6	17
6	Bird Rd (SW 40 St) Connector	10.2	6,264	59,063	72,018	9.4	11.5	22%	12	8
7	SW 137 Ave North-South Corridor	13.1	7,907	73,540	89,907	9.3	11.4	22%	11	10
8	NW 36 St Connector	8.6	5,349	27,356	33,958	5.1	6.3	24%	2	13
9	North Beach Corridor	8.9	5,489	56,803	66,642	10.3	12.1	17%	13	4
10	North-South Beach Connector	4.9	3,173	31,293	35,692	9.9	11.2	14%	9	1
11	NW 103 St Connector	6.8	4,269	60,978	73,565	14.3	17.2	21%	18	6
12	NW 87 Ave North-South Corridor	12.1	7,353	65,073	78,980	8.8	10.7	21%	8	7
13	Okeechobee Rd Northwest Corridor	10.9	6,649	56,896	67,527	8.6	10.2	19%	7	5
14	NW/NE 183 St East-West Corridor	14.2	8,526	100,808	123,155	11.8	14.4	22%	17	9
15	NW/NE 163/ NW 167 St	3.6	2,490	27,544	35,157	11.1	14.1	28%	16	14
16	Commuter Rail SR 826 Connector	2.6	1,880	16,417	21,374	8.7	11.4	30%	10	19
17	Tamiami South Rail Line	8.3	5,164	21,236	24,780	4.1	4.8	17%	1	3
18	Old Seaboard Rail Line	5.6	3,377	46,032	75,177	13.6	22.3	63%	20	20
19	Red Rd North-South Corridor	9.6	5,934	58,975	72,127	9.9	12.2	22%	14	11
20	SW 312 St Connector	3.3	2,309	23,313	28,663	10.1	12.4	23%	15	12

4.2 Evaluation Matrix

4.2.1 Scoreboard

In order to compare the performance of each corridor across 20 different criteria, the evaluation matrix is laid out as a scoreboard with adjustable weightings that can account for a dynamic scoring system. **Table 4-3** on next page shows the scoreboard for the Default Scenario. The main parameters of this scoreboard include the following:

- Corridor Total Score is the sum of the scores for all evaluated criteria. A maximum possible score is 100 points.
- Overall Rank is the ranking of a corridor based on the Corridor Total Score.
- The criteria weight are independent parameters in this scoreboard. Changing the weight of each criterion, while controlling the total score at 100 points, results in changing rankings for different scenarios. The Default Scenario assigns equal weights of five points to each criterion. **Figure 4-2** illustrates the score adjustment from the 20-point scale to the 5-point scale.

Performance by Criteria	Highest ---------- Lowest																		
Corridor Ranking	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Assigned Score (20-1)	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Adjusted (5-0.25) Scale Score	5.00	4.75	4.50	4.25	4.00	3.75	3.50	3.25	3.00	2.75	2.50	2.25	2.00	1.75	1.50	1.25	1.00	0.75	0.50	0.25

Figure 4-2: Adjusted Score Scale

The criteria are classified into the categories described in **Section 4.1.1**. The category weighting is a dependent parameter, tied to the number of criteria in each category. In the default setting, the categories have the following number of points assigned:

- Transit: 3 criteria - 15 points
- Multimodal: 3 criteria - 15 points
- Traffic/Infrastructure: 3 criteria - 15 points
- Socioeconomic: 6 criteria - 30 points
- Land Use: 5 criteria - 25 points

Table 4-3: Default Setting of Scoreboard (Scenario 1)

Category	Transit			Multimodal			Traffic/Infrastructure			Socioeconomic						Land Use					
Score	15			15			15			30						25					
Criteria Weight	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	100

Corridor Info			Transit (15, 15%, 3 metrics)			Multimodal (15, 15%, 3 metrics)			Traffic/Infrastructure (15, 15%, 3			Socioeconomic (30, 30%, 6 metrics)						Landuse (25, 25%, 5 metrics)						
No.	Corridor Name	Corridor Length (Miles)	Metrobus Runing Along (5)	Metrobus Intersecting (5)	Metrobus & Metrorail Ridership (5)	Count of Connected Transit Mode (5)	First/Last Mile - Municipal Service (5)	First/Last Mile - Ped/bike facilities(5)	AADT (5)	LOS (5)	Lanes (5)	2050 Population Density (5)	Population Change 2020 to 2050 (5)	2050 Employment Density (5)	Employment Change 2020 to 2050 (5)	Equity - % 2050 Zero-Vehicle Households (5)	Equity - % 2050 Low-Income Households (5)	% Commercial Land Use (5)	% Mixed-Use Land Use (5)	% High Density Residential Land Use (5)	% Vacant Land (5)	% Low Building-to-Land Ratio Land (5)	Total (100)	Overall Rank
1	Metrorail Green Extension	3.9	1.00	0.25	1.25	1.25	3.75	4.75	1.50	2.25	3.50	0.75	0.50	1.25	2.50	1.00	1.25	0.50	3.25	0.75	5.00	5.00	41.25	18
2	Metrorail Orange Extension	4.6	1.75	3.00	3.50	3.75	4.75	3.00	0.50	0.25	0.25	4.75	3.75	5.00	1.75	2.25	1.75	4.50	1.50	4.75	3.00	0.75	54.50	9
3	Commuter Rail Southwest Corridor (A) - Palmetto	19.0	4.00	4.00	3.00	2.50	3.00	1.00	4.50	2.50	4.50	1.00	4.50	3.50	1.50	4.00	4.50	1.25	4.50	2.00	2.50	3.75	62.00	3
4	Commuter Rail Southwest Corridor (B) - MIC	17.3	4.50	4.75	2.00	3.75	1.25	0.75	4.50	2.00	4.75	1.25	4.00	3.25	0.75	2.00	2.25	2.50	4.75	1.50	3.25	3.50	57.25	8
5	SW 152 St Connector	4.6	2.75	1.75	1.50	1.25	0.25	1.50	4.00	1.25	1.25	1.50	4.25	0.75	2.25	4.25	4.75	1.50	3.50	0.50	1.50	4.25	44.50	17
6	Bird Rd (SW 40 St) Connector	10.2	1.50	3.50	2.25	1.25	3.00	2.00	3.75	4.25	2.50	3.00	2.00	2.25	2.75	1.25	1.00	3.00	2.25	2.75	1.00	1.50	46.75	15
7	SW 137 Ave North-South Corridor	13.1	3.75	2.75	3.25	1.25	0.25	1.25	2.50	0.25	2.75	2.75	2.50	1.00	1.00	0.75	2.50	0.75	3.00	1.25	2.75	3.00	39.25	19
8	NW 36 St Connector	8.6	3.50	1.75	3.75	3.75	3.75	4.25	3.50	1.75	4.25	0.50	3.25	4.25	0.25	3.50	4.25	4.00	5.00	1.00	0.75	2.75	59.75	6
9	North Beach Corridor	8.9	2.25	4.50	4.00	3.75	3.75	4.00	1.75	3.50	3.00	3.25	1.00	1.50	4.75	4.50	2.00	2.75	2.75	3.75	4.25	1.75	62.75	2
10	North-South Beach Connector	4.9	4.25	0.50	4.75	1.25	3.00	5.00	1.25	4.75	2.25	2.25	0.25	4.50	4.25	4.75	0.50	3.75	0.25	3.50	0.50	0.25	51.75	11
11	NW 103 St Connector	6.8	3.25	3.00	4.25	1.25	1.25	0.25	2.25	3.00	1.75	4.50	1.50	2.75	2.00	2.75	3.00	5.00	0.25	5.00	2.00	0.50	49.50	13
12	NW 87 Ave North-South Corridor	12.1	3.00	1.50	2.50	1.25	3.75	3.50	2.00	1.50	0.75	2.00	1.75	3.75	0.50	1.50	1.50	2.25	4.25	4.00	4.50	2.50	48.25	14
13	Okeechobee Rd Northwest Corridor	10.9	2.00	3.75	1.75	3.75	2.25	2.50	3.25	4.00	3.75	1.75	1.25	3.00	3.00	3.00	3.50	4.75	0.25	4.25	3.50	4.00	59.25	7
14	NW/NE 183 St East-West Corridor	14.2	5.00	1.75	5.00	2.50	5.00	1.75	4.25	3.75	2.00	4.25	2.25	1.75	3.75	1.75	2.75	1.75	2.50	2.25	2.25	4.50	60.75	5
15	NW/NE 163/ NW 167 St	3.6	4.75	0.50	4.50	3.75	2.25	2.25	3.00	4.50	0.50	4.00	3.50	2.50	3.50	3.75	4.00	3.25	3.75	3.00	1.25	4.75	63.25	1
16	Commuter Rail SR 826 Connector	2.6	0.25	4.25	0.50	2.50	0.25	3.75	5.00	5.00	3.25	2.50	4.75	4.00	3.25	0.50	0.75	1.00	2.00	3.25	1.75	3.25	51.75	11
17	Tamiami South Rail Line	8.3	0.25	0.50	0.25	0.00	0.25	4.50	0.75	3.25	5.00	0.25	0.75	0.25	1.25	0.25	0.25	0.25	0.25	0.25	0.25	1.00	19.75	20
18	Old Seaboard Rail Line	5.6	0.25	5.00	0.75	5.00	1.25	2.75	0.25	1.00	1.50	5.00	5.00	4.75	5.00	5.00	3.25	4.25	0.25	4.50	4.00	2.25	61.00	4
19	Red Rd North-South Corridor	9.6	2.50	2.50	2.75	1.25	2.25	0.50	2.75	2.75	4.00	3.50	2.75	2.00	4.00	2.50	3.75	3.50	1.75	1.75	3.75	2.00	52.50	10
20	SW 312 St Connector	3.3	1.25	0.50	1.00	1.25	1.25	3.25	1.00	0.25	1.00	3.75	3.00	0.50	4.50	3.25	5.00	2.00	4.00	2.50	4.75	1.25	45.25	16

4.2.2 Scenarios

This study evaluated five scenarios. In Scenario 1, equal weights are given to each criterion. Scenario 2 values Transit factors higher than other categories, Scenario 3 places a higher value on Land Use factors, Scenario 4 emphasizes the Socioeconomic factors, and Scenario 5 values Traffic factors highest.

- **Scenario 1 Default:** Equal weight for all criteria (5 points each). In this scenario, no changes are made to the default scores, meaning each category equally contributes to assessing the corridor's viability.
- **Scenario 2 Transit:** The weight of the Transit category is doubled in this scenario. It assumes that existing transit services and ridership are the most crucial factors for predicting the corridor's future success.
- **Scenario 3 Land Use:** Increases the weight of criteria in the Land Use category. This scenario acknowledges the slow pace of changes in land use. It emphasizes the redevelopment potential and mixed-uses already present along the corridors.
- **Scenario 4 Socioeconomic**: Increases the weight of the criteria in the Socioeconomic category. This scenario assumes that the population and employment growth and density, as well as equity measures are the key indicators of transit potential.
- **Scenario 5 Traffic:** Increases the weight of criteria in the Traffic category. In this scenario, higher AADT, lower LOS, and number of travel lanes indicate where capacity limitations might benefit from transit investment, thus giving these categories more emphasis.

Table 4-4 shows the details of the scenario weights. The green shading indicates an increase from the default setting (Scenario 1), while the yellow shading indicates a decrease from the default setting (Scenario 1).

Table 4-4: Criteria Weighting in Each Scenario

Category	No	Criteria	Scenario 1 Weights		Scenario 2 Weights		Scenario 3 Weights		Scenario 4 Weights		Scenario 5 Weights	
Transit (3 metrics)	1	Metrobus - Routes Runing Along	5	15	10	30	5	15	5	13	5	12
	2	Metrobus - Routes Intersecting	5		5		5		3		2	
	3	Ridership - Metrobus & Metrorail	5		15		5		5		5	
Multimodal (3 metrics)	4	Count of Connected Transit Mode	5	15	5	10	4	8	2	6	5	15
	5	First/Last Mile - Municipal Service	5		3		2		2		5	
	6	First/Last Mile - Ped/Bike facilities	5		2		2		2		5	
Traffic/Infrastructure (3 metrics)	7	AADT	5	15	5	15	3	7	2	6	10	30
	8	LOS	5		4		2		2		10	
	9	Lanes	5		6		2		2		10	
Socioeconomic (6 metrics)	10	Population - 2050 Density	5	30	3	20	5	30	10	50	3	18
	11	Population - Change 2020 to 2050	5		2		5		7		3	
	12	Employment - 2050 Density	5		3		5		10		3	
	13	Employment - Change 2020 to 2050	5		2		5		7		3	
	14	Equity - % 2050 Zero-Vehicle Households	5		5		5		8		3	
	15	Equity - % 2050 Low-Income Households	5		5		5		8		3	
Land Use (5 metrics)	16	% Commercial Land Use	5	25	5	25	6	40	5	25	5	25
	17	% Mixed-Use Land Use	5		5		10		5		5	
	18	% High Density Residential Land Use	5		5		6		5		5	
	19	Redevelopment Potential - % Vacant Land	5		5		8		5		5	
	20	Redevelopment Potential - % Low Building-to-Land Ratio Land	5		5		10		5		5	
Total Scores			**100**		**100**		**100**		**100**		**100**	

4.2.3 Corridor Ranking

Table 4-5 summarizes the ranking results of all five (5) scenarios developed above. The columns with orange bars show the total score of each corridor under each scenario. The other columns beside showing the ranking order, the top eight corridors are shaded green, and the and the 9th and 10th ranked corridors are shaded in blue. The last column calculates the count of how many times each corridor is ranked in the top 8 in the five scenarios. According to the calculations, these corridors have been divided into three groups:

Group 1: These corridors were ranked in the top eight in all **five (5)** scenarios.

- Corridor 15: NW/NE 163/ NW 167 St
- Corridor 9: North Beach Corridor
- Corridor 3: Commuter Rail Southwest Corridor (A) – Palmetto*
- Corridor 14: NW/NE 183 St East-West Corridor
- Corridor 8: NW 36 St Connector
- Corridor 13: Okeechobee Rd Northwest Corridor

Group 2: These corridors were ranked in the top eight between **one to four (1-4) times**.

- Corridor 4: Commuter Rail Southwest Corridor (B) – MIC*
- Corridor 18: Old Seaboard Rail Line
- Corridor 2: Metrorail Orange Extension
- Corridor 10: North-South Beach Connector
- Corridor 16: Commuter Rail SR 826 Connector

Group 3: These corridors were never ranked in the top eight corridors.

- Corridor 19: Red Rd North-South Corridor
- Corridor 11: NW 103 St Connector
- Corridor 12: NW 87 Ave North-South Corridor
- Corridor 6: Bird Rd (SW 40 St) Connector
- Corridor 20: SW 312 St Connector
- Corridor 5: SW 152 St Connector
- Corridor 1: Metrorail Green Extension
- Corridor 7: SW 137 Ave North-South Corridor
- Corridor 17: Tamiami South Rail Line

Table 4-5: Ranking Results

			All criteria equal		Ridership+		Landuse+		Socioecon+		Traffic+		
Map No	**Corridor Name**	**Direction**	**Scenario 1 Scores**	**Scenario 1 Rank**	**Scenario 2 Scores**	**Scenario 2 Rank**	**Scenario 3 Scores**	**Scenario 3 Rank**	**Scenario 4 Scores**	**Scenario 4 Rank**	**Scenario 5 Scores**	**Scenario 5 Rank**	How many times **ranking Top 8** in five scenarios
15	NW/NE 163/ NW 167 St	**E-W**	63.3	1	67.2	1	66.1	1	67.3	2	62.5	3	5
9	North Beach Corridor	**E-W**	62.8	2	63.7	4	61.1	4	60.1	5	61.5	6	5
3	*Commuter Rail Southwest Corridor (A) - Palmetto	**N-S**	62.0	3	65.2	3	63.5	2	61.6	3	63.5	1	5
14	NW/NE 183 St East-West Corridor	**E-W**	60.8	5	66.4	2	60.2	6	59.6	6	63.1	2	5
8	NW 36 St Connector	**E-W**	59.8	6	63.2	5	58.4	7	57.1	7	61.8	4	5
13	Okeechobee Rd Northwest Corridor	**N-S**	59.3	7	57.9	7	57.9	8	56.4	8	61.8	5	5
4	*Commuter Rail Southwest Corridor (B) - MIC	**N-S**	57.3	8	60.7	6	60.5	5	54.1	11	60.3	7	4
18	Old Seaboard Rail Line	**E-W**	61.0	4	50.8	12	62.7	3	70.7	1	49.6	12	3
2	Metrorail Orange Extension	**N-S**	54.5	9	52.4	11	54.5	9	60.2	4	46.0	15	1
10	North-South Beach Connector	**N-S**	51.8	11	55.4	8	44.3	16	52.8	12	53.1	9	1
16	Commuter Rail SR 826 Connector	**N-S**	51.8	11	42.9	17	49.1	14	48.7	14	56.2	8	1
19	Red Rd North-South Corridor	**N-S**	52.5	10	53.3	10	52.5	10	55.4	9	53.1	9	0
11	NW 103 St Connector	**E-W**	49.5	13	55.4	9	48.6	15	54.6	10	48.1	13	0
12	NW 87 Ave North-South Corridor	**N-S**	48.3	14	48.9	13	52.2	11	48.5	15	47.2	14	0
6	Bird Rd (SW 40 St) Connector	**E-W**	46.8	15	45.1	15	43.5	17	43.8	17	50.3	11	0
20	SW 312 St Connector	**E-W**	45.3	16	40.0	18	50.2	12	52.5	13	39.2	18	0
5	SW 152 St Connector	**E-W**	44.5	17	44.5	16	49.2	13	48.4	16	42.9	17	0
1	Metrorail Green Extension	**E-W**	41.3	18	38.1	19	43.4	18	35.5	19	45.5	16	0
7	SW 137 Ave North-South Corridor	**N-S**	39.3	19	45.6	14	43.4	19	40.3	18	38.9	19	0
17	Tamiami South Rail Line	**E-W**	19.8	20	16.7	20	13.2	20	12.9	20	27.3	20	0

4.3 Prioritized Corridors (with TPO Coordination, LRTP Committee)

Upon completion of the corridor ranking analysis, the study team presented its findings to the Miami-Dade TPO. The goal at this stage was to select eight corridors to advance to the Tier 2 analysis.

The TPO considered additional factors to select the eight corridors. These determinations included geographic distribution of corridors throughout the county, and considerations about other active studies. Where certain corridors were already being evaluated, it made sense to set them aside in this study to not duplicate efforts. Specific reasons for advancing or not advancing specific corridors are as follows:

- Corridors that would not advance to Tier 2 despite falling in Group 1 or 2:
  - Corridor 3 and 4, CSX were under evaluation by a concurrent TPO study (CSX Southwest Railroad Corridor Assessment).
  - Corridor 14 was evaluated in a previous TPO study (SMART Transit Improvements Along Major Thoroughfares and Existing Systems).
  - Corridor 18, has right of way challenges, including a portion of the alignment that falls along private property.
- Corridors that would advance to Tier 2 despite falling in Group 3:
  - Corridor 5 was advanced due to its interlinkage of the South Dade Transitway and the CSX corridor.
  - Corridor 7 was advanced due to its interlinkage of the CSX Corridor and the Dolphin Park-and-Ride, as well as the potential north-south connection it would provide on the west side of Miami-Dade County.
  - Corridor 20 was advanced due to its location serving a neighborhood that is experiencing rapid urbanization, as well as its connection to the South Dade Transitway.

Table 4-6 summarizes the outcomes determined for the corridors advancing in the Future Corridors 2.0 & 3.0 vision plan. While just eight are advanced to the Tier 2 analysis, the remaining evaluated corridors, along with other alignments that have been previously evaluated by the TPO, remain in consideration for the overall vision network, and are prioritized in the latter phases of the Miami-Dade TPO 2050 LRTP.

Table 4-6: Status of All Future Corridors 2.0 & 3.0

No	Corridor Name	LRTP Proposed Planning Period	Future Corridors 2.0 & 3.0	Scenario Development
-	NW/SW 27 Avenue Bus Rapid Transit	2031-2050	N/A	Previous TPO Study
-	NW 7th Avenue Bus Rapid Transit (previously studied)	2031-2050	N/A	Previous TPO Study
4	Commuter Rail Southwest Corridor (B) – MIC (CSX Corridor Commuter Rail)	2031-2050	Future Corridors 2.0	Previous TPO Study
14	NW/NE 183 St East-West Corridor (NW 183 Street Bus Rapid Transit)	2031-2050	Future Corridors 2.0	Previous TPO Study
2	Metrorail Orange Extension	2031-2050	Future Corridors 2.0	In This Report
5	SW 152 St Connector	2031-2050	Future Corridors 2.0	In This Report
7	SW 137 Ave North-South Corridor	2031-2050	Future Corridors 2.0	In This Report
8	NW 36 St Connector	2031-2050	Future Corridors 2.0	In This Report
9	NE/NW 79 St (North Beach) Corridor	2031-2050	Future Corridors 2.0	In This Report
13	Okeechobee Rd Northwest Corridor	2031-2050	Future Corridors 2.0	In This Report
15	NW/NE 163 / NW 167 St	2031-2050	Future Corridors 2.0	In This Report
20	SW 312 St Connector	2031-2050	Future Corridors 2.0	In This Report
1	Metrorail Green Extension	2051-2060	Future Corridors 3.0	Future Study
3	Commuter Rail Southwest Corridor (A) – Palmetto	2051-2060	Future Corridors 3.0	Future Study
6	Bird Rd (SW 40 St) Connector	2051-2060	Future Corridors 3.0	Future Study
10	North-South Beach Connector	2051-2060	Future Corridors 3.0	Future Study

11	NW 103 St Connector	2051-2060	Future Corridors 3.0	Future Study
12	NW 87 Ave North-south Corridor	2051-2060	Future Corridors 3.0	Future Study
16	Commuter Rail SR 826 Connector	2051-2060	Future Corridors 3.0	Future Study
17	Tamiami South Rail Line	2051-2060	Future Corridors 3.0	Future Study
18	Old Seaboard Rail Line	2051-2060	Future Corridors 3.0	Future Study
19	Red Rd North-South Corridor	2051-2060	Future Corridors 3.0	Future Study

CHAPTER 5 TIER 2 ANALYSIS – EVALUATION AND REFINEMENT SCREENING

This chapter provides a detailed analysis of the refined corridors to evaluate their potential for advancing into the future Project Development and Environment (PD&E) phase. The analysis consists of four main components:

- An environmental analysis to identify potential environmental impacts that may serve as obstacles to the development of these corridors. It assesses both the natural and built environment characteristics, pinpointing obstacles for the new transit routes.
- An operating assessment and characteristics profile for the evaluated corridors. This profiles the evaluated corridors, aligning them with operating characteristics of existing or planned rapid transit corridors in Miami-Dade County. It considers factors such as speeds, operating hours, and headways for two different mode types.
- A cost estimate analysis, which evaluates the construction, operation, and maintenance costs of building and running the services along these corridors. The analysis includes a detailed cost estimate exercise using data points from the operating assessment.
- A modeling analysis using Simplified Trips-on-Project Software (STOPS) model, predicting potential ridership in the build year of 2045.

Figure 5-1 shows the eight transit routes prioritized as potential Future Corridors 2.0. Some of the corridors have been analyzed in previous or other on-going TPO studies, and are thus not included in this section. The corridors analyzed here are as follows:

- Corridor 2: Metrorail Orange Extension
- Corridor 5: SW 152 Street Connector
- Corridor 7: SW 137 Avenue North-South Corridor
- Corridor 8: NW 36 Street Connector
- Corridor 9: NE/NW 79th Street (North Beach) Corridor
- Corridor 13: Okeechobee Road Northwest Corridor
- Corridor 15: NW/NE 163/ NW 167 Street
- Corridor 20: SW 312 Street Connector

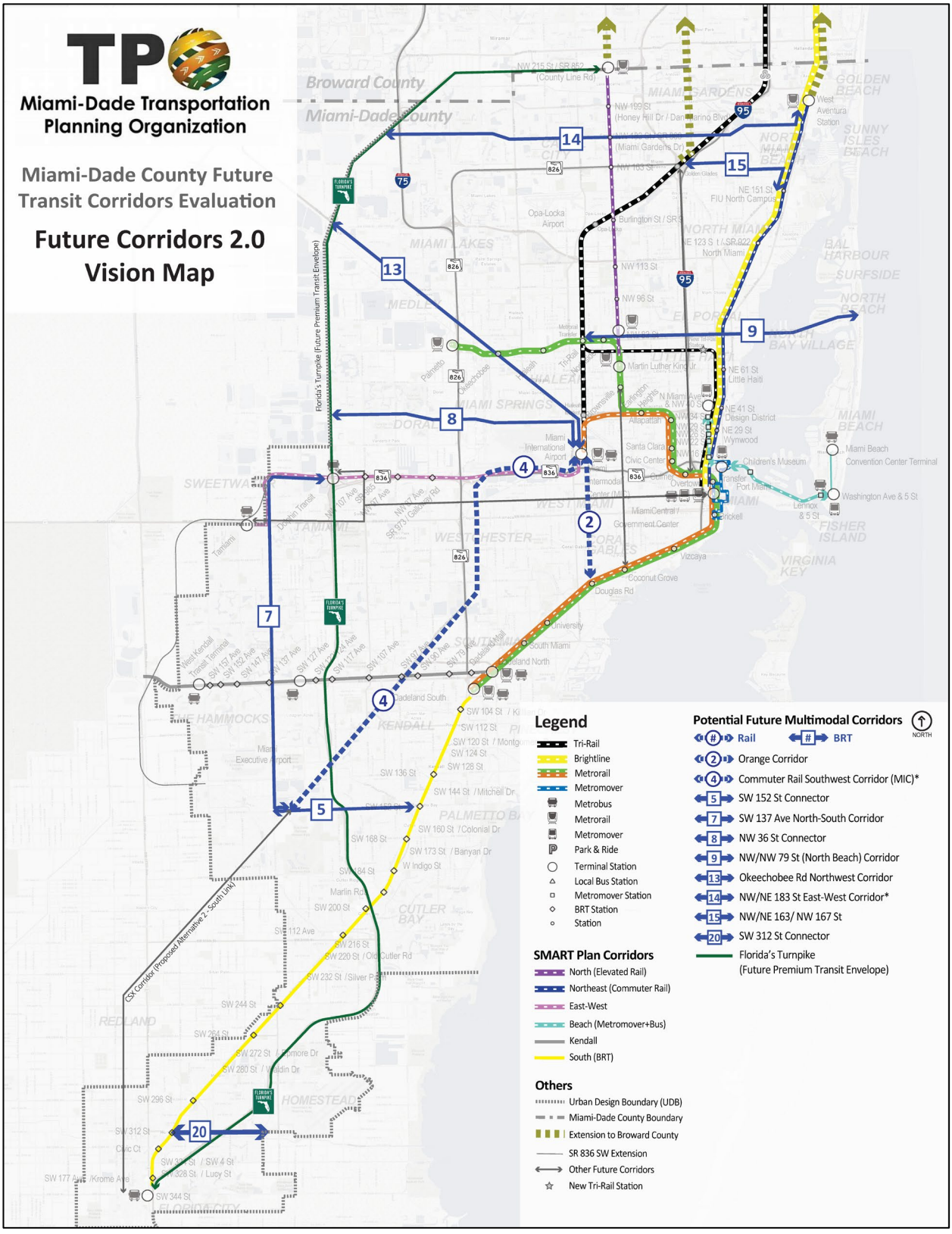

Figure 5-1: Potential Future Corridors 2.0

5.1 Environmental Analysis

5.1.1 Methodology

The environmental analysis is presented here in two sub-categories, the natural environment and the human environment. The natural environment assessment evaluates the corridors' potential impact to surrounding natural environments and habitats through a quantitative spatial analysis of overlapping areas. The human environment reviews the accessibility of the corridor to the local public, and the accessibility of parks and green spaces from the stops on the corridors. Parks within a half-mile walking distance of a stop will be considered accessible.

Impacts to the environment were evaluated through an analysis of a half-mile area around each corridor. Environments with conservation concern were overlayed and quantified by the area they occupy within each half-mile zone. This area represents the range of effects these corridors may have, quantified by environment type. Environments included in this analysis are historic areas, critical habitats, environmentally endangered land sites, wetlands, brownfields, protected wellfields, lakes, rivers, streams and canals, parks and preserves, and flood zones.

Some environments with an elevated concern status, including wetlands, critical habitats, brownfields, protected wellfields, and environmentally endangered environments, overlap with areas presently zoned for residential or industrial uses. All environments were analyzed by first removing the area of vacant lands, as defined by the *Department of Regulatory and Economic Resources (RER)*, from the half-mile buffer and the remaining area is then quantified by acreage. The next section of this chapter summarized the criteria whi32ch are used in the environmental analysis assessment, with a description of each item along with data source which were utilized.

5.1.2 Criteria

5.1.2.1 Environmentally Endangered Land (EEL)

Environmentally Endangered Land Sites (EEL) are areas that have experienced significant and continuous habitat loss due to human activities and have an increased need for conservation. Miami-Dade County has focused protection and conversation efforts on these lands, which encompasses over 23,000 acres. Environmentally Endangered Land (EEL) data was downloaded from *Miami-Dade County Open Data Hub* and the area of vacant lands was removed from the layer. The remaining acreage covered by EEL's was calculated and summed within a half-mile zone for each corridor.

5.1.2.2 Critical Habitats

Critical habitats are environments that are crucial to the survival of Listed Species under the Endangered Species Act. These habitats may have special protections or restrictions, and may require permits, licenses, or authorizations for human activity and developments. Critical habitat

data was downloaded from *Miami-Dade County Open Data Hub*, and the area of vacant lands was removed from the habitat layer. The remaining acreage covered by critical habitats was calculated within a half-mile zone for each corridor.

5.1.2.3 Flood Zones

Areas at risk for inundation and flooding during major weather events, including river and coastal flooding, are recognized by the *Federal Emergency Management Agency (FEMA*) as Flood Zones. Heavy rains, poor drainage, impervious surfaces, and construction projects increase the chances of flooding, the impacts of flooding, and the range that contaminated runoff may travel. These zones are important for natural disasters (e.g., hurricanes, tropical storms, king tides, etc.) and emergency evacuation planning.

Flood Zones are labeled with increasing risks as: A, AE, AH, D, VE. Zone X describes areas with minimal flood risks and are outside of FEMAs designated hazard areas and were therefore removed from the analysis. Flood zone data was downloaded from *Miami-Dade County Open Data Hub* and the area of coverage was calculated and summed within a half-mile of each corridor.

5.1.2.4 Wetlands

Wetland habitats provide a diverse range of ecosystem services (e.g., storm surge breaks, floodwater storage, water filtration, nurseries for juvenile fish populations, respites for migratory birds, etc.) that benefit surrounding habitats and local communities. These habitats receive large inputs of terrestrial runoff from the surrounding environments and are therefore sensitive to activities that pollute or increase the volume of incoming water. Wetland data was downloaded from *Miami-Dade County Open Data Hub* and the area of vacant lands was removed from the habitat layer. The remaining acreage covered by wetlands was calculated and summed within a half-mile zone for each corridor.

5.1.2.5 Brownfields

Brownfields are economically deprived areas that are either underutilized or abandoned due to industrial hazards, contamination or pollution. These areas are identified by local governments and the *Environmental Protection Agency (EPA)* and commonly include former gas stations, former dry cleaners, factories, heavy machinery lots, landfills, and others. The EPA has issued brownfield programs, such as the Brownfields Redevelopment Act, to cleanup brownfield sites, reduce public and environmental health hazards, and convert the land into community spaces. Brownfield data was downloaded from *Miami-Dade County Open Data Hub* and the area of vacant lands was removed from the layer. The remaining acreage covered by brownfields was calculated and summed within a half-mile zone for each corridor.

5.1.2.6 Wellfields

Aquifers are made of porous limestone rock formations that naturally filter and store freshwater close to the surface. The permeable nature of limestone, coupled with the proximity of the water table, renders aquifers susceptible to pollutants transported by groundwater and runoff, which can percolate through the rock layers and contaminate freshwater reserves. Wellfields are areas where freshwater is pumped out of the aquifer to supply drinking water. These areas provide direct access to the underlying aquifer, thereby heightening the potential for contamination and pollution. Due to the increased risk for contamination, hazardous materials and the generation of hazardous waste are often prohibited in these areas. Protected Wellfields data was downloaded from *Miami-Dade County Open Data Hub* and the area of vacant lands was removed from the layer. The remaining acreage covered by wellfields was calculated and summed within a half-mile zone for each corridor.

5.1.2.7 Parks

Miami-Dade County maintains the third largest county park system in the United States, facilitated by the *Parks Foundation of Miami-Dade* to support Miami-Dade County Parks, Recreation and Open Spaces Department. These areas are maintained by the county and are made available to the public for the purpose of creating healthier, sustainable and more livable communities. Municipal parks and recreational centers include city-maintained parks, greenways, and recreational centers, most of which are open to the public. Parks are an essential public service that provides access to natural greenspaces within and around human developments. Access to parks and greenspaces increases the economic value of the area, promotes physical and mental health among visitors, instills community pride, and furnishes natural gathering spaces. Data for National State Park Preserves, County parks, Municipal parks, and Golf Courses were downloaded from *Miami-Dade County Open Data Hub*. Municipal parks and golf course areas were combined into a single category. The area covered by National parks, County parks, and Municipal Parks and Recreational centers was calculated and summed for each category within a half-mile zone for each corridor.

5.1.2.8 Lakes, Rivers, Streams and Canals

Water bodies, whether naturally occurring or man-made, are susceptible to contaminants collected by groundwater and terrestrial runoff. Additionally, rivers, streams, and canals serve as conduits for transferring water along considerable distances, channeling terrestrial runoff into lakes, rivers, and deltas. Lakes, rivers, streams and canal data were downloaded from *Miami-Dade County Open Data Hub*. The length of each stream, river, and canal was calculated and summed within a half-mile zone for each corridor. Similarly, the acreage covered by lakes was calculated and summed within the same zone for each corridor.

5.1.2.9 Historic Areas

Historic areas, as defined by Miami-Dade County, are sites with historical, cultural, archeological, paleontological, aesthetic or architectural merit. These areas are enhanced and protected by the County's Code of Ordinances - *Chapter 16A Historic Preservation* to preserve these sites for the public and future generations. Historical site data was downloaded from *Miami-Dade County Open Data Hub*. Sites that reside within the half-mile zone of a corridor were measured and documented by their distance to the corridor. Note that should these corridors advance to the PD&E phase, a more detailed historic analysis will be required.

5.1.3 Individual Corridor Analysis

5.1.3.1 Corridor 2 - Metrorail Orange Extension

The Metrorail Orange Extension is a 4.5-mile rail corridor that extends north-south from the Miami Intermodal Center (MIC) to US-1 and Dougals Road Metro Station.

The following **Table 5-1** shows the environmental impact analysis summary of this corridor, and the relative location this corridor is showed in **Figure 5-1**.

Table 5-1: Corridor 2 - Environmental Impact Analysis Summary

Corridor 2 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Critical Habitat Area (Acres)	-	-	None were identified within the half-mile buffer.
Flood Area (Acres)	1,058.11	35.03	Flood zones occupy about 35% of the land within a half-mile buffer, with zone AE concentrated in the northern quarter of the buffer and zone AH scattered throughout.
Wetland Area (Acres)	-	-	None were identified within the half-mile buffer.
EEL Area (Acres)	-	-	None were identified within the half-mile buffer.
Brownfield Area (Acres)	352.01	11.65	The brownfield area is situated north of NW 20 Street encompassing the airport, the MIC, the Tamiami Canal, and northern portion of the Miami Freedom Park and Soccer Village, currently under development.
Wellfield Area (Acres)	-	-	None were identified within the half-mile buffer.
National State Parks Area (Acres)	-	-	None were identified within the half-mile buffer.
County Park Area (Acres)	-	-	None were identified within the half-mile buffer.
Municipal Park and Recreation Area, and Golf Courses Area (Acres)	178.65	5.91	16 parks and recreational areas are found within half-mile of the corridor, including Grapeland Heights Park and Douglas Park.
Lake Area (Acres)	28.21	0.93	Although the water bodies constitute a small share of the area within the buffer, the Tamiami Canal is located along the proposed alignment, and as this corridor moves forward in the development process, further analysis will be warranted for appropriate water crossing infrastructure for this corridor.
Stream and Canal Lengths (Miles)	2.20	-	
Historic Area	-	-	Historic Site 1: 317 Mendoza Avenue House (0.45 miles to the corridor)

The Metrorail Orange Extension overlaps with a brownfield site located along the northern boundary of the corridor area, coinciding entirely with flood zones AE and AH. Sensitive environments and habitats are absent within the half-mile buffer of this corridor, suggesting minimal environmental impacts. Moreover, the extension will enhance public access to numerous parks and recreational centers situated along NW 37 Avenue.

5.1.3.2 Corridor 5 - SW 152 Street Connector

The SW 152 Street Connector is a 4.6-mile bus corridor that extends east-west from SW 137 Avenue to US-1.

The following **Table 5-2** shows the environmental impact analysis summary of this corridor, and the relative location this corridor is showed in **Figure 5-1**.

Table 5-2: Corridor 5 - Environmental Impact Analysis Summary

Corridor 5 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Critical Habitat Area (Acres)	1,155.21	38.08	A majority of critical habitats are located along the southern perimeter of the buffer zone between the railroad and SW 117 Avenue, west of the Florida's Turnpike. The Pine Rocklands adjacent to Zoo Miami are included in the critical habitat analysis. A smaller habitat is located along the northern margin of the buffer, between SW 92 Avenue and S Dixie Highway.
Flood Area (Acres)	373.18	12.30	Flood zones occupy about 12% of the buffer area. The zones are split between AE and AH, and are primarily concentrated towards the east and western portions of the corridor, with a narrow section traversing the interior.
Wetland Area (Acres)	429.75	14.17	A small wetland is situated west of SW 137 Avenue, and overlaps residential neighborhoods. A second wetland sits at the south edge of the buffer zone and overlaps with the Florida's Turnpike and SW 152 Street. The largest wetland extends from the northeastern edge of the buffer zone and extends south of SW 152 Street, west of S Dixie Highway.
EEL Area (Acres)	116.71	3.85	EEL lands overlap smaller portions of the critical habitats area.
Brownfield Area (Acres)	283.05	9.33	A large brownfield is situated north of SW 152 Street, east of the Florida's Turnpike in Richmond Heights. A smaller brownfield is situated along SW 124 Avenue and extends from the southern margin of the buffer area to SW 152 Street.
Wellfield Area (Acres)	-	-	None were identified within the half-mile buffer.

Corridor 5 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
National State Parks Area (Acres)	-	-	None were identified within the half-mile buffer.
County Park Area (Acres)	200.91	6.62	10 county parks were identified within a half-mile buffer, the largest being Palmetto Golf Course, Zoo Miami, and Colonial Drive Park.
Municipal Park and Recreation Area, and Golf Courses Area (Acres)	-	-	None were identified within the half-mile buffer.
Lake Area (Acres)	132.35	4.36	Multiple lakes, streams, and canals are present within the buffer area, including Woods Lake between W 127 Avenue and SW 122 Avenue, and Silver Lake east of SW 137 Avenue.
Stream and Canal Lengths (Miles)	4.58	-	
Historic Area	-	-	• Historic Site 1: Coral Rock Wall (0.42 miles to the corridor) • Historic Site 2: Richmond Naval Air Station Remaining Structure A (0.12 miles to the corridor)

Significant overlap between critical habitats and environmentally endangered lands is observed along the southern edge of the corridor, distinct from the brownfields site located in Richmond Heights. Wetland habitats, adjacent to the critical habitats, show minimal overlap with the brownfield location. Flood zones within this corridor are not widespread, appearing sporadically between AE and AH zones. This corridor presents minimal risk to sensitive environments and waterways while concurrently enhancing access to multiple county parks.

5.1.3.3 Corridor 7 - SW 137 Avenue North-South Corridor

The SW 137 Avenue North-South Corridor is a 13-mile bus corridor that extends primarily north-south between the Dolphin Station and SW 152 Street.

The following **Table 5-3** shows the environmental impact analysis summary of this corridor, and the relative location this corridor is showed in **Figure 5-1**.

Table 5-3: Corridor 7 - Environmental Impact Analysis Summary

Corridor 7 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Critical Habitat Area (Acres)	881.31	11.24	Critical habitats are scattered in the southern portion of the buffer zone, with clusters located north of SW 120 Street, a portion of Nixon Smiley Pineland preserve north of SW 128 Street, and another cluster south of SW 152 Street.

Corridor 7 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Flood Area (Acres)	4,530.79	57.79	More than half the corridor area is within a flood zone. The majority of flood zones occur in AE and AH patches throughout the corridor, with the greatest density occupying the middle portion in Kendale Lakes.
Wetland Area (Acres)	2,663.73	33.98	The majority of wetlands are found in the northern sections of the buffer zone near SW 8 Street and the Tamiami Canal, primarily overlapping residential neighborhoods. A smaller portion of wetland habitats are found in the southern quarter of the buffer zone and encompasses the airport and industrial complexes.
EEL Area (Acres)	159.44	2.03	EEL lands coincide with and overlap portions of the critical habitats area.
Brownfield Area (Acres)	174.27	2.22	Two brownfields are present within the buffer zone. The first is located north of the Dolphin Expressway, just before NW 137 Avenue bend. A smaller brownfield is situated east of the Florida's Turnpike.
Wellfield Area (Acres)	4,119.17	52.54	Wellfield sites occupy the majority of the area between Tamiami Trail and SW 112 Street, and a smaller area north of the Dolphin Expressway.
National State Parks Area (Acres)	-	-	None were identified within the half-mile buffer.
County Park Area (Acres)	176.27	2.25	15 county parks were identified within a half-mile buffer, the largest being Nixon Smiley Pineland Preserve, Central West Basin Linear Park, and Camp Matecumbe.
Municipal Park and Recreation Area, and Golf Courses Area (Acres)	80.15	1.02	Calusa Country Club and Miccosukee Country Golf Club were identified within the half-mile buffer.
Lake Area (Acres)	638.36	8.14	Multiple bodies of water reside within the buffer area, including Coral Aggregates Quarry, Silver Lake, Twin Lake Shores, Tamiami Canal, Lindgren Canal, and Bird Drive Extension Canal. The majority of canals run parallel to the corridor, and bridges exist for intersecting areas.
Stream and Canal Lengths (Miles)	11.21	-	
Historic Area	-	-	Historic Site 1: Richmond Naval Air Station Remaining Structure A (0.12 miles to the corridor)

Two brownfield sites in the northern section of the corridor overlap entirely with the wetland habitats and flood zones, and partially with wellfield sites. Flood zones AE and AH occupy more than half of the corridor area and overlap extensively with the wellfield sites. The proximity of

the corridor to the wellfield suggests that runoff from this area could potentially threaten the underlying aquifer, a risk potentially compounded by runoff from the adjacent brownfields.

5.1.3.4 Corridor 8 - NW 36 Street Connector

The NW 36 Street Connector is a 9.5-mile bus corridor that extends east-west from Florida's Turnpike to the MIC.

The following **Table 5-4** shows the environmental impact analysis summary of this corridor, and the relative location this corridor is showed in **Figure 5-1**.

Table 5-4: Corridor 8 – Environmental Impact Analysis Summary

Corridor 8 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Critical Habitat Area (Acres)	-	-	None were identified within the half-mile buffer.
Flood Area (Acres)	2,351.15	42.47	Flood zones are scattered across the entire length of the buffer area and are heavily concentrated towards the eastern portion. Flood zones vary between AE and AH.
Wetland Area (Acres)	1,969.11	35.57	Wetlands cover nearly the entire western third of the buffer zone, ending at NW 87 Avenue, encompassing residential and industrial areas.
EEL Area (Acres)	-	-	None were identified within the half-mile buffer.
Brownfield Area (Acres)	1,585.28	28.64	Brownfields occupy two general areas in this half-mile buffer area. Three smaller brownfields are scattered around NW 36 Street and the Palmetto Expressway, and NW 72 Avenue towards the center of the corridor with a couple of small streams nearby. A second brownfield area is located towards the east end of the corridor, centered around NW 36 Street and the Airport Expressway, and overlaps the Miami River.
Wellfield Area (Acres)	2,374.74	42.90	A wellfield site occupies the area between NW 117 Street to NW 109 Avenue in Doral, and a larger site between NW 7 Avenue and NW 42 Avenue in Virginia Gardens and Miami Springs.
National State Parks Area (Acres)	-	-	None were identified within the half-mile buffer.
County Park Area (Acres)	-	-	None were identified within the half-mile buffer.
Municipal Park and Recreation Area, and Golf Courses Area (Acres)	472.27	8.53	15 parks and areas of recreation were identified within a half-mile buffer, including the Doral Golf Course and the Miami Springs Golf and Country Club.
Lake Area (Acres)	239.47	4.33	

Corridor 8 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Stream and Canal Lengths (Miles)	9.51	-	Bodies of water are scattered throughout the buffer area, with a high frequency occurring in the west quarter. Notable rivers and canals include the Dressel's Dairy Canal, the Miami River, and the Tamiami Canal.
Historic Area	-	-	Historic Site 1: Pan American Regional Headquarter Building (0.01 miles to the corridor)

More than 40% of the corridor area is occupied by wellfield sites, distributed across two main locations. A large wellfield site spans the region between the Palmetto Expressway and W. Okeechobee Road in Miami Springs, while a smaller site is situated in the western corner of the corridor. Wetland habitats overlap with the western wellfield site, while large brownfield sites overlap with the eastern wellfield location. Water transfer throughout the corridor is facilitated by the Dressel's Dairy Canal, the Miami River, and Tamiami Canals, traversing the wellfield sites. Flood zones, ranging from AE to AH, are scattered throughout the corridor, with larger and continuous zones overlapping brownfield areas toward the easternmost extent. The convergence of flood zones, brownfield sites, and local water bodies suggests potential risks to the major wellfield site in Hialeah and the Miami River.

5.1.3.5 Corridor 9 – NE/NW 79 Street (North Beach) Corridor

The NE/NW 79 Street (North Beach) Corridor is a 9.3-mile bus corridor that extends east-west from the Tri-Rail Transfer Station to A1A (Alton Road).

The following **Table 5-5** shows the environmental impact analysis summary of this corridor, and the relative location this corridor is showed in **Figure 5-1**.

Table 5-5: Corridor 9 – Environmental Impact Analysis Summary

Corridor 9 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Critical Habitat Area (Acres)	1,861.23	33.78	Critical habitats are located towards the east of the buffer zone, encompassing nearly the entire NE 79 Causeway.
Flood Area (Acres)	3,707.87	67.29	Flood zones are scattered across the entire length of the buffer area, varying between AE, AH, and VE. Zones VE occur exclusively at the land margins, just before the causeway and the eastern margin of the barrier island.
Wetland Area (Acres)	-	-	None were identified within the half-mile buffer.

Corridor 9 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
EEL Area (Acres)	-	-	None were identified within the half-mile buffer.
Brownfield Area (Acres)	2,718.24	49.33	Large brownfields are located in the western half of the buffer area, ending west of Biscayne Boulevard. The brownfields cover industrial and residential areas and have a canal transiting the eastern portion.
Wellfield Area (Acres)	316.25	5.74	The wellfield site is situated west of NW 32 Avenue.
National State Parks Area (Acres)	-	-	None were identified within the half-mile buffer.
County Park Area (Acres)	227.30	4.12	13 county parks were identified with a half-mile buffer of the corridor, with the largest parks being Pelican Harbor Marina, Miami Beach, and Arcola Lakes Park.
Municipal Park and Recreation Area, and Golf Courses Area (Acres)	132.44	2.40	19 parks and recreational areas were identified within a half-mile buffer, including Normandy Shores Golf Course, Normandy Shores Park, and the Fairway Park and Rec Center.
Lake Area (Acres)	22.68	0.41	Bodies of water include golf course lakes and a residential neighborhood lake. Large canals include the Biscayne Point Canal and the Indian Creek.
Stream and Canal Lengths (Miles)	7.30	-	
Historic Area	-	-	• Historic Site 1: El Portal Little River Seawall (0.37 miles to the corridor). • Historic Site 2: James E. Scott Homes Building (0.47 miles to the corridor). • Historic Site 3: Majestic Isle Condominium (0.04 miles to the corridor). • Historic Site 4: The Lido Condo (0.19 miles to the corridor).

Critical habitats are situated around the causeway and along the Miami Beach barrier island, west of A1A. Brownfield sites dominate the opposite side of the corridor, encompassing the entire area west of US-1. A section of the wellfield site overlaps with the brownfield site in the southwestern corner of the corridor. The corridor primarily falls within AE or AH flood zones, notably encompassing the causeway bridge connecting the mainland to the barrier island. Although wetlands are not within the immediate half-mile buffer, streams and canals offer direct access to Biscayne Bay, and the proximity to the mainland's coast indicates that this corridor has a significant potential to impact local waterways and critical habitats.

5.1.3.6 Corridor 13 - The Okeechobee Road Northwest Corridor

The Okeechobee Road Northwest Corridor is a 11.5-mile bus corridor that extends southeast-northwest from the MIC to the Florida's Turnpike.

The following **Table 5-6** shows the environmental impact analysis summary of this corridor, and the relative location this corridor is showed in **Figure 5-1**.

Table 5-6: Corridor 13 - Environmental Impact Analysis Summary

Corridor 13 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Critical Habitat Area (Acres)	-	-	None were identified within the half-mile buffer.
Flood Area (Acres)	3,693.95	54.40	More than 50% of the buffer area is within an AE or AH flood zone, with a higher density occurring in the southeastern portion of the corridor.
Wetland Area (Acres)	2,950.01	43.44	All wetland habitats are located in the upper northwestern portion of the buffer zone in Hialeah Gardens, ending at the Palmetto Expressway, encompassing residential and industrial areas.
EEL Area (Acres)	-	-	None were identified within the half-mile buffer.
Brownfield Area (Acres)	1,506.27	22.18	Brownfields are located primarily along the northeastern edge of the Miami River between the Palmetto Expressway and the Miami International Airport.
Wellfield Area (Acres)	2,290.51	33.73	The wellfield sites occupy the area between the Palmetto Expressway in Hialeah to NW 36 Street in Miami Springs.
National State Parks Area (Acres)	-	-	None were identified within the half-mile buffer.
County Park Area (Acres)	-	-	None were identified within the half-mile buffer.
Municipal Park and Recreation Area, and Golf Courses Area (Acres)	168.19	2.48	23 parks and recreational areas were identified within a half-mile buffer, including Westland Gardens Park and Grapeland Heights Park.
Lake Area (Acres)	201.34	2.97	Several bodies of water are scattered across the buffer area including lakes, rivers, and canals. Most notable are the Miami River, which transects the entire length of the corridor, and the Tamiami Canal.
Stream and Canal Lengths (Miles)	18.29	-	
Historic Area	-	-	• Historic Site 1: Graham House (0.04 miles to the corridor). • Historic Site 2: Pan American Regional Headquarter Building (0.01 miles to the corridor).

The northwestern segment of the corridor is predominantly occupied by wetlands, while brownfields are more prevalent in the southeastern portion. The Miami River traverses the entire northwest-to-southeast stretch of the corridor, branching into smaller canals. Over half of the corridor falls within AE or AH flood zones, with a higher concentration in the southeastern area, significantly overlapping with the brownfields. This elevates the potential for contaminated rain and floodwaters to enter local waterways, such as the Miami River and nearby lakes.

5.1.3.7 Corridor 15 - NW/NE 163/NW 167 Street Corridor

The NW/NE 163/NW 167 Street Corridor is a 4.9-mile bus corridor that extends primarily east-west from US-1 to the Golden Glades Multimodal Transportation Facility.

The following **Table 5-7** shows the environmental impact analysis summary of this corridor, and the relative location this corridor is showed in **Figure 5-1**.

Table 5-7: Corridor 15 - Environmental Impact Analysis Summary

Corridor 15 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Critical Habitat Area (Acres)	-	-	None were identified within the half-mile buffer.
Flood Area (Acres)	1,044.08	32.50	AE Flood zones are present at the western and eastern margins of the buffer area.
Wetland Area (Acres)	341.35	10.62	The wetland habitats occupy the eastern extent of the buffer zone, east of Biscayne Blvd, extending towards Oleta River State Park.
EEL Area (Acres)	33.10	1.03	Several sites overlap the East Greynolds Park east of US-1.
Brownfield Area (Acres)	574.53	17.88	Multiple brownfields occur within the half-mile buffer area, with the largest site occupying the western corner at the I-95 and US-441 junction, north of the Biscayne River. Smaller sites are located near NE 167 Street, Aqua Bowl Park, and US-1.
Wellfield Area (Acres)	-	-	None were identified within the half-mile buffer.
National State Parks Area (Acres)	69.70	2.17	Oleta River State Park is situated along the eastern margin of the buffer zone, east of US-1
County Park Area (Acres)	48.47	1.51	East Greynolds Park, Biscayne Gardens Park, and Sabal Palm Park were identified within a half-mile buffer.
Municipal Park and Recreation Area, and Golf Courses Area (Acres)	157.38	4.90	22 parks and recreational areas were identified within a half-mile buffer, including North Miami Interama Property, Aqua Bowl Park, and Arthur Snyder Tennis Complex.
Lake Area (Acres)	27.59	0.86	

Corridor 15 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Stream and Canal Lengths (Miles)	3.50	-	Two small bodies of water exist in the buffer area, including Aqua Bowl Lake and a private pond. Canals include Biscayne Canal, which feeds into the pond, and Snake Creek Canal, which feeds water into Oleta River State Park.
Historic Area	-	-	• Historic Site 1: Burwell House (0.30 miles to the corridor). • Historic Site 2: Fulford-By-The-Sea Wall (0.40 miles to the corridor). • Historic Site 3: Greynolds Park (0.28 miles to the corridor). • Historic Site 4: Peoples Gas System (0.04 miles to the corridor). • Historic Site 5: Spanish Monastery (0.29 miles to the corridor).

Brownfield sites overlap with AE and AH flood zones, as well as some wetlands and wellfield sites. Wetlands are situated towards the eastern boundary of the corridor, away from residential areas, and completely coincide with environmentally endangered lands and flood zones.

The eastern portion of the corridor encompasses Oleta River State Park along with numerous county and city parks, enhancing public accessibility to green spaces. Brownfields entirely overlap with lakes and partially with flood zones, rivers, and streams, suggesting wetlands and waterways may be subjected to human influence and incoming flood waters.

5.1.3.8 Corridor 20 – SW 312 Street Connector

The SW 312 Street Connector is a 4.3-mile bus corridor that extends east-west from US-1 to SW 137 Avenue.

The following **Table 5-8** shows the environmental impact analysis summary of this corridor, and the relative location this corridor is showed in **Figure 5-1**.

Table 5-8: Corridor 20 – Environmental Impact Analysis Summary

Corridor 20 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Critical Habitat Area (Acres)	-	-	None were identified within the half-mile buffer.
Flood Area (Acres)	1,337.98	52.40	Flood zones AE and AH occupy most of the buffer area, with heavy concentrations occurring in the eastern half.

Corridor 20 – Environmental Impact Analysis Summary			
Criteria	**Area (Acres)**	**(% half-mile buffer Area)**	**General Comments**
Wetland Area (Acres)	1,213.73	47.53	The wetland extends across the entire east-west extent of the buffer zone, with minimal coverage in the southwest portion, and full coverage east of the Florida's Turnpike.
EEL Area (Acres)	-	-	None were identified within the half-mile buffer.
Brownfield Area (Acres)	545.07	21.35	The brownfields sites are concentrated in the western portion of the buffer zone, with the majority situated west of US-1 in Homestead. One site exists east of US-1 and extends to a canal near SW 159 Avenue.
Wellfield Area (Acres)	204.45	8.01	The wellfield site is situated between E. Flagler Avenue and NE 8 Street, and encompasses J.D. Redd Park and Harris Field Park,
National State Parks Area (Acres)	-	-	None were identified within the half-mile buffer.
County Park Area (Acres)	4.85	0.19	The South Dade Trail traverses a narrow corridor in the western portion of the half-mile buffer area.
Municipal Park and Recreation Area, and Golf Courses Area (Acres)	62.00	2.43	6 parks and recreational areas were identified within a half-mile buffer, including Harris Field Park, J.D. Redd Park.
Lake Area (Acres)	73.81	2.89	26 small lakes are clustered within the half-mile zone, with a high frequency in the eastern half of the corridor. Streams and canals transect the corridor area, including Mowry Canal.
Stream and Canal Lengths (Miles)	5.04	-	
Historic Area	-	-	None were identified within the half-mile buffer.

Brownfield sites encompass over 20% of the western corridor, while over half of the eastern corridor falls within AE or AH flood zones. Although flood zones minimally overlap with brownfield areas, they overlap significantly with wetlands, indicating that localized rainfall and weather events may channel runoff into wetlands, streams, canals, and lakes. The wellfield site is positioned between brownfield and wetland sites with some overlap, heightening the risk of contamination to the aquifer.

5.1.4 Environmental Impact Analysis Summary

Table 5-9 summarizes the environmental analysis for the eight prioritized Future Corridors 2.0. Each row corresponds to a corridor, whereas the columns correspond to environmental data within the half-mile buffer area.

Area is recorded here as acreage for critical habitats, flood area, wetlands, environmentally endangered lands, brownfields, wellfields, and lakes.

Stream and canal lengths are recorded in miles and historical sites are documented as the number of sites that reside within the half-mile area.

Table 5-9: Environmental Impact Analysis Summary

Corridor Number	Corridor Name	Buffer Area (Acres)	Critical Habitat Area (Acres)	Flood Area (Acres)	Wetland Area (Acres)	EEL Area (Acres)	Brownfield Area (Acres)	Wellfield Area (Acres)	National State Parks Area (Acres)	County Park Area (Acres)	Municipal Park and Recreation Area, and Golf Courses Area (Acres)	Lake Area (Acres)	Stream and Canal Lengths (Miles)	Number of Historical Sites within half-mile buffer
2	Metrorail Orange Extension	3,018.38	-	1,058.11	-	-	352.01	-	-	-	178.65	28.21	2.20	1
5	SW 152 St Connector	3,036.38	1,155.21	373.18	429.75	116.71	283.05	-	-	200.91		132.35	4.58	2
7	SW 137 Ave North-South Corridor	7,840.04	881.31	4,530.79	2,663.73	159.44	174.27	4,119.17		176.27	80.15	638.36	11.21	1
8	NW 36 St Connector	5,535.19	-	2,351.15	1,969.11	-	1,585.28	2,374.74	-	-	472.27	239.47	9.51	1
9	NE/NW 79 St (North Beach) Corridor	5,510.69	1,861.23	3,707.87	-	-	2,718.24	316.25	-	227.30	132.44	22.68	7.30	4
13	Okeechobee Rd Northwest Corridor	6,788.54	-	3,693.95	2,950.01	-	1,506.27	2,290.51	-	-	168.19	201.34	18.29	2
15	NW/NE 163/ NW 167 St	3,210.71	-	1,044.08	341.35	33.10	574.53	-	69.70	48.47	157.38	27.59	3.50	5
20	SW 312 St Connector	2,556.47	-	1,337.98	1,213.73	-	545.07	204.45	-	4.85	62.00	73.81	5.04	-

5.2 Operating Characteristics

Operational characteristics were developed for the corridors based upon the proposed modes. Existing and proposed premium transit service operating characteristics were used as the assumption for the Bus Rapid Transit (BRT) alignments, while Metrorail's operating characteristics were assumed for Corridor 2 (Metrorail Orange Extension), which is assumed to be a Heavy Rail Transit (HRT).

BRT is a bus-based rapid transit system that can achieve high capacity and speed at relatively low cost by combining segregated bus lanes that are typically median aligned, off-board fare collection, level boarding, bus priority at intersections, and other quality-of-service elements.

HRT is an electric rail-based public transport system, often referred to as "Metro," with high-passenger-capacity rail cars that generally preclude sharp turning movements and require a high platform to board.

Operating characteristics are presented in **Table 5-10.**

Table 5-10: Operating Characteristics of the Corridors

Corridor (Mode)	Corridor Length (Miles)	Total number of stops	Frequency (peak/off-peak)	Speed (peak/off-peak)
Corridor 2 (HRT)	4.51	6 (bi-directional)	10/15	30 mph
Corridor 5 (BRT)	4.63	16	10/15	14 mph / 17 mph
Corridor 7 (BRT)	13.02	25		
Corridor 8 (BRT)	9.51	25		
Corridor 9 (BRT)	9.32	24		
Corridor 13 (BRT)	11.56	14 (bi-directional)		
Corridor 15 (BRT)	4.87	13		
Corridor 20 (BRT)	4.36	10		

5.2.1 Stop Placement

Table 5-11 presents the one-way stops for each of the corridors. Stops were placed at approximately half-mile spacings to maximize speed and efficiency for the route while still serving major intersections and communities (**Figure 5-1**). Generally, the following methodology was followed for the placement of stops:

HRT Corridor (Corridor 2):

- Approximate one-mile spacing
- Stops placed at major intersections to denote general station location.
- Spacing considered locations of major intersections or major attractors.

BRT corridors:

- Approximate spacing of 1-mile, with stops moved or added where necessary or appropriate to land uses, and activity centers.
- Bi-directional stops unless stop is at a terminal or transit hub (ex: transit village).
- Placement preferences:
  - #1 for stops near major attractor, major roadways, or current bus service.
  - #2 for stops with existing pedestrian infrastructure or bus stop amenities.
  - #3 for bus pairs that are closer together.
- Proposed new stop location when the preference #1-#3 do not offer optimal stop location near an activity center with safe pedestrian infrastructure.

Since the Simplified Trips-on-Project Software (STOPS) model allows for considerations of park-and-ride facilities, which can increase a corridor's catchment area, an additional step considered the placement of these facilities. The study team identified potential park-and-ride sites that were developed by looking at the existing land uses at proposed stop locations. Existing park-and-ride facilities were taken into consideration to minimize clustering these facilities.

Table 5-11: Corridor Stop Locations

Corridor Number / Name	Proposed Stops
Corridor 2 **Metrorail Orange Extension**	• Douglas Road Station • SW 37 Avenue @ Coral Way • SW 37 Avenue @ SW 8 Street / Tamiami Trail • SW 37 Avenue @ W Flagler Street • SW 37 Avenue @ NW 7 Street • Miami Intermodal Center
Corridor 5 **SW 152 St Connector**	• SW 152 Street @ Lindgren Road • SW 152 Street @ SW 134 Place (2) • SW 152 Street @ SW 129 Avenue (2) • SW 152 Street @ SW 127 Avenue (2) • SW 152 Street @ SW 120 Avenue (2) • SW 152 Street @ SW 117 Avenue (2) • SW 152 Street @ SW 112 Avenue (2) • SW 152 Street @ SW 102 Avenue (2) • SW 152 Street Transitway Park & Ride

Corridor Number / Name	Proposed Stops
Corridor 7 **SW 137 Ave North-South Corridor**	• SW 152 Street @ SW 134 Place (2) • SW 137 Avenue @ SW 152 Street (2) • SW 137 Avenue @ SW 136 Street (2) • SW 137 Avenue @ SW 120 Street (2) • SW 137 Avenue @ SW 104 Street (2) • SW 137 Avenue @ SW 88 Street (2) • SW 137 Avenue @ SW 72 Street (2) • SW 137 Avenue @ SW 56 Street (2) • SW 137 Avenue @ SW 42 Street (2) • SW 137 Avenue @ SW 26 Street (2) • SW 137 Avenue @ Tamiami Trail (2) • NW 12 Street @ NW 127 Avenue (2) • Dolphin Station Park & Ride
Corridor 8 **NW 36 St Connector**	• Miami Dade College – West Campus (2) • NW 115 Avenue @ NW 39 Street (2) • NW 36 Street @ NW 114 Avenue (2) • NW 36 Street @ NW 107 Avenue (2) • NW 36 Street @ NW 97 Avenue (2) • NW 36 Street @ NW 87 Avenue (2) • NW 36 Street @ NW 83rd Avenue (2) • NW 36 Street @ NW 79 Avenue (2) • NW 36 Street @ Milam Dairy Road (2) • NW 36 Street @ NW 57 Avenue (2) • NW 36 Street @ East Drive (2) • NW S River Drive @ NW 42 Avenue (2) • Miami Intermodal Center
Corridor 9 **NE/NW 79th St (North Beach) Corridor**	• Tri-Rail/Metrorail Transfer Station • Northside Transit Village (2) • NW 79 Street @ NW 27 Avenue (2) • NW 79 Street @ NW 22 Avenue (2) • NW 79 Street @ NW 12 Avenue (2) • NW 79 Street @ NW 7 Avenue (2) • NW 79 Street @ NW 1 Place (2) • NW 79 Street @ Biscayne Boulevard (2) • NW 79 Street @ N Bayshore Drive (2)

Corridor Number / Name	Proposed Stops
	• NW 79 Street @ Harbor Isla Drive (2) • NW 79 Street @ #1800 (2) • NW 71 Street @ Rue Notre Dame (2) • NW 71 Street @ Byron Avenue
Corridor 13 **Okeechobee Rd Northwest Corridor**	• Miami Intermodal Center • NW S River Drive @ NW 42 Avenue • N LeJeune Road @ S Royal Poinciana Road • Okeechobee Road @ East Drive • Okeechobee Road @ Palm Avenue • Okeechobee Road @ Red Road • Okeechobee Road @ W 19 Street • Okeechobee Road @ W 18 Avenue • Okeechobee Road @ NW 79 Avenue • Okeechobee Road @ NW 87 Avenue • Okeechobee Road @ NW 116 Way • Okeechobee Road @ NW 121 Way • Okeechobee Road @ NW 107 Avenue • Okeechobee Road @ The Florida's Turnpike
Corridor 15 **NW/NE 163/ NW 167 St**	• Golden Glades Intermodal Center • NE 167 Street @ N Miami Avenue (2) • NE 167 Street @ NE 6 Avenue (2) • NE 167 Street @ NE 10 Avenue (2) • NE 167 Street @ NE 15 Avenue (2) • NE 167 Street @ NE 22 Avenue (2) • NE 167 Street @ NE 151 Street (2)
Corridor 20 **SW 312 St Connector**	• SW 312 Street @ S Dixie Highway (2) • SW 312 Street @ SW 162 Avenue (2) • SW 312 Street @ SW 152 Avenue (2) • SW 312 Street @ The Charter School at Waterstone • SW 312 Street @ Baptist Way • SW 312th Street @ NE 1 Road • S Miami-Dade Busway @ SW 312 Street

5.3 Cost-Estimate Analysis

Cost estimate analysis in transit studies involves a thorough examination of the financial requirements associated with implementing transit projects, encompassing various elements such as infrastructure development, equipment procurement, operational expenses, and maintenance costs. It serves as a crucial tool for planners and decision-makers to assess the feasibility and viability of proposed transit initiatives, enabling informed resource allocation and budgeting during the planning phase. By considering factors like labor, materials, land acquisition, regulatory compliance, and potential contingencies, a cost estimate analysis provides a comprehensive overview of the financial implications of transit projects, facilitating prudent decision-making and ensuring realistic budget frameworks.

5.3.1 BRT Routes Cost Estimate

5.3.1.1 BRT Routes Construction Cost Estimate

To estimate a rough order of magnitude of construction costs for Future Corridors 2.0 BRT corridors, an analysis of 11 Bus Rapid Transit (BRT) projects across the United States was conducted, incorporating available cost information for the projects either constructed prior to 2024, or are under construction and will be operational in next five years. The information for projects listed in **Table 5-12** was gathered from different sources, including FTA CIG (Federal Transit Administration Capital Investment Grant) Project list. By leveraging the data gleaned from these BRT projects, planners and decision-makers can gain valuable insights into the potential costs associated with Future Corridors 2.0 infrastructure development. This approach enables a more informed and pragmatic assessment of financial requirements, contributing to the development of accurate budget frameworks and ensuring the fiscal sustainability Future Corridors 2.0 initiatives.

Table 5-12: Surrogate BRT Project Costs

Project Name	Construction Year	Project Length (Mile)	Total Project Cost ($ million)	Source / Reference	Cost per mile ($ million)
Miami South Corridor Rapid Transit Project, FL	2024	20.0	$300.00	Miami Dade Transit	$15.00
East-West Corridor Rapid Transit Project, FL	2025	13.5	$281.00	FTA	$20.81
ART N/S Corridor Project, TX	2027	10.4	$446.00	FTA	$42.91
METRO Purple Line Bus Rapid Transit Project, MN	2026	15.0	$445.00	FTA	$29.97
ART E/W Corridor Project, TX	2029	7.3	$293.00	FTA	$40.14

Project Name	Construction Year	Project Length (Mile)	Total Project Cost ($ million)	Source / Reference	Cost per mile ($ million)
Atlanta Clayton Southlake BRT Project, GA	2026	15.5	$338.00	FTA	$21.81
Hamilton Avenue Corridor BRT Project, OH	2025	11.0	$143.00	FTA	$13.00
Reading Road Corridor BRT Project, OH	2025	10.0	$150.00	FTA	$15.00
East Colfax Avenue BRT Project Profile, CO	2026	8.5	$225.00	FTA	$26.51
The East-West Bank BRT Project Development Profile, LA	2027	15.1	$326.00	FTA	$21.59
Maryland Parkway BRT Project, NV	2025	12.5	$305.00	FTA	$24.40

Based on the information provided by peer studies shown in **Table 5-12**, the minimum construction cost for a BRT project was $13.00 Million per mile while the maximum construction cost was $42.91 Million. Applying these construction costs per mile information, the average cost would be $24.62 Million per mile.

5.3.1.2 BRT Routes Operation and Maintenance Cost Estimate

Another portion of the cost-estimate is the annual operational and maintenance (O&M) costs. To estimate the annual O&M cost for BRT projects, items listed below are considered:

- Annual Vehicle Revenue Hour x Cost per Revenue Hour
- Number of Bus Stops x Maintenance Cost per Stop

The unit costs are based on estimates developed for a previous Miami-Dade TPO study, focusing on the SMART Transit Improvements Along Major Thoroughfares and Existing Systems. The costs are adjusted for inflation.

5.3.2 Heavy Rail Route Cost Estimate

5.3.2.1 Heavy Rail Route Construction Cost Estimate

A similar methodology was used for the rail project (Corridor 2, Metrorail Orange Extension). One peer study is used for project construction cost estimates, the Miami-Dade County Metrorail Airport (Orange Line) Extension, which was constructed in 2011 for $506 million.

An inflation rate was applied by using the annual inflation rate published by U.S. Bureau of Labor Statistics to grow the cost from 2011 to 2023 dollars. Using this growth, the adjusted capital

construction cost was normalized on a per-mile basis and applied to the segment length of Corridor 2. A corridor study evaluating this alignment should be initiated to refine these rough order of magnitude construction costs. These will be more precise, factoring in specific unit costs while also accounting for significant inflation incurred in the construction industry in recent years.

5.3.2.2 Heavy Rail Route Operation and Maintenance Cost Estimate

For the rail project, according to the Metrorail 2023 TDP Annual Update, the O&M cost per mile is $4.29 million.

5.3.3 Future Corridors 2.0 Cost Estimate

Based on the data provided in the previous section, high-level cost-estimates for construction as well as annual operation and maintenance costs for each of Future Corridors 2.0 are estimated and summarized in **Table 5-13** and **Table 5-14** respectively.

In **Table 5-13**, the minimum, maximum and average cost values obtained from peer reviewed corridors identified in the previous section are multiplied by corridor length (corresponding to mode). This table provides a range of potential costs for the construction of the evaluated corridors in 2023 dollars. Construction cost estimates will need to be developed to provide greater accuracy in future phases of study.

In **Table 5-14**, operation and maintenance costs are developed based upon assumed service headways, operating time spans and the number of transit stops along the corridors. The values are presented in 2023 dollars.

Table 5-13: Future Corridors 2.0 Construction Cost-Estimate

Corridor Number	Corridor Name	Length (Miles)	Transit Mode	Estimated Construction Cost ($ million)
2	Metrorail Orange Extension	4.51	Heavy Rail Transit	Avg: $1,269.79
5	SW 152 Street Connector	4.63	Bus Rapid Transit	Min: $60.19, Max: $198.69, Avg: $114.00
7	SW 137 Avenue North-South Corridor	13.02	Bus Rapid Transit	Min: $169.26, Max: $558.75, Avg: $320.58
8	NW 36 Street Connector	9.51	Bus Rapid Transit	Min: $123.63, Max: $408.12, Avg: $234.16
9	NE/NW 79 Street (North Beach) Corridor	9.32	Bus Rapid Transit	Min: $121.16, Max: $399.96, Avg: $229.48
13	Okeechobee Road Northwest Corridor	11.56	Bus Rapid Transit	Min: $150.28, Max: $496.09, Avg: $284.63
15	NW/NE 163/ NW 167 Street	4.87	Bus Rapid Transit	Min: $63.31, Max: $208.99, Avg: $119.91
20	SW 312 Street Connector	4.36	Bus Rapid Transit	Min: $56.68, Max: $187.11, Avg: $107.35

Table 5-14: Future Corridors 2.0 Operation and Maintenance Cost-Estimates

No.	Corridor Name	Length (Miles)	Transit Mode	Annual Vehicle Revenue Hours	Unit Cost 1 - Cost per Revenue Hour ($)	Number of Stops	Unit Cost 2 - Maintenance Cost per Stop ($)	Unit Cost 3 - Rail O&M Per Mile ($ million)	Annual O&M (2023$ million)
2	Metrorail Orange Extension	4.51	HRT	-	-	-	-	$4.29	$19.36
5	SW 152 Street Connector	4.63	BRT	26,783	$150	18	$20,996	-	$4.39
7	SW 137 Avenue North-South Corridor	13.02	BRT	75,175	$150	26	$20,996	-	$11.80
8	NW 36 Street Connector	9.51	BRT	46,781	$150	25	$20,996	-	$7.53
9	NE/NW 79 Street (North Beach) Corridor	9.32	BRT	60,827	$150	26	$20,996	-	$9.66
13	Okeechobee Road Northwest Corridor	11.56	BRT	51,928	$150	27	$20,996	-	$8.34
15	NW/NE 163/ NW 167 Street	4.87	BRT	36,776	$150	14	$20,996	-	$5.80
20	SW 312 Street Connector	4.36	BRT	19,750	$150	10	$20,996	-	$3.17

5.4 Simplified Trips-on-Project Software (STOPS) Model Runs

In this section, a summary of the preliminary ridership forecasts for the evaluated corridors is presented. The Federal Transit Administration's (FTA) simplified dash trips, dash-on-dash project software (STOPS), was used to develop ridership forecasts. This is a standalone computer program that applies travel models to predict travel patterns on the transit corridor scenarios. This method developed by FTA, allows project sponsors to predict the trips on a proposed project and to assess the change in vehicle miles travelled change required for environmental measures of potential future federally funded transit capital projects.

Eight STOPS models were run on the selected corridors using the STOPS model (Version 2.51). The model, for the year 2019, was supplied by the Miami-Dade Transportation Planning Organization for use in the study. In addition to a base year, a 2045 no-build run was conducted with the South Corridor of the SMART Program considered completed. Model runs were conducted on corridors individually, allowing them to be tested in isolation from one another. In addition to the proposed rapid transit services identified in this study, each proposed corridor was tested with existing local transit services operating on the corridor to provide connecting services for the intermediate stops between the proposed Future Corridors.

Table 5-15 presents data related to the ridership on the Future Corridors 2.0 routes, detailing linked trips on the project, transit-dependent linked trips, incremental linked transit trips (Build - No-Build), and daily vehicle miles traveled (VMT) reduction associated with each route.

Table 5-15: STOPS Model Results

No.	Corridor Name	Linked Trips on Project	Transit Dependent Linked Trips	Incremental Linked Transit Trips (Build - No-Build)	Daily VMT Reduction
2	Metrorail Orange Extension	19,574	5,663	7,257	-20,430
5	SW 152 Street Connector	400	88	56	-590
7	SW 137 Avenue North-South Corridor	1,409	821	280	-936
8	NW 36 Street Connector	989	109	0	-240
9	NE/NW 79 Street (North Beach) Corridor	6,022	2,989	1,103	-208
13	Okeechobee Road Northwest Corridor	2,100	646	249	-1,103
15	NW/NE 163/ NW 167 Street	1,423	453	643	-1,980
20	SW 312 Street Connector	713	635	84	- 833

Table 5-16 summarizes how passengers access each corridor, either boarding the transit mode by walking, drop-off (Kiss-and-Ride), or Park-and-Ride. The 'All' column provides the total number of passengers for each route, combining all three methods of transportation.

Table 5-16: STOPS Model Boardings

No.	Corridor Name	Walk	Kiss-and-Ride	Park-and-Ride	All
2	Metrorail Orange Extension	10,928	375	864	12,167
5	SW 152 Street Connector	327	40	33	400
7	SW 137 Avenue North-South Corridor	1,208	87	114	1,409
8	NW 36 Street Connector	692	186	111	989
9	NE/NW 79 Street (North Beach) Corridor	4,813	257	951	6,022
13	Okeechobee Road Northwest Corridor	1,888	97	114	2,100
15	NW/NE 163/ NW 167 Street	1,021	157	245	1,423
20	SW 312 Street Connector	710	2	1	713

Overall, Corridor 2 provides the highest number of transit trip boardings of the evaluated corridors. With over 12,000 trips predicted for the stops on the corridor, this corridor would be a substantial enhancement to the existing Metrorail System. Route 9, which operates between the Northside Metrorail Station and Alton Road on Miami Beach, would provide over 6,000 boardings, demonstrating the demand for transit service linking the Miami Beach employment hub to the transit modes on mainland.

CHAPTER 6 TIER 3 ANALYSIS – SCENARIO DEVELOPMENT

This chapter advances the scenario development of the proposed future corridors.

A fully integrated scenario map depicting the overall future SMART Plan corridors vision is depicted and discussed. **Figure 6-1** depicts an overall system network that represents the vision for a built-out rapid transit network for Miami-Dade County. This overall vision includes a combination of the existing SMART Program, and all proposed future corridors (Future Corridors 2.0, Future Corridors 3.00, and other future corridors previously studied by TPO consultants).

Next, individual corridor scenarios are developed for each of the standalone eight (8) Future Corridors 2.0. For each corridor, a corridor map is presented along with the corridor characteristics, connectivity opportunities, and ridership forecasts.

This chapter also looks at how this network can be regionally integrated with other services and planning efforts conducted by Broward County, Tri-Rail, and private operators such as Brightline. This coordination has the potential to improve connectivity between Miami-Dade and Broward County mobility options.

6.1 The Overall Future Corridors 2.0 & 3.0 – The Vision

In addition to the corridors identified and evaluated in this study, the Miami-Dade TPO is currently working to identify other potential rapid and mass transit solutions for Miami-Dade County. These corridors include a mix of modes: commuter rail, heavy rail, bus rapid transit, micro transit, and other solutions that can address specific mobility needs throughout the County.

As part of this study, some of these additional corridors that are under evaluation are depicted in an overall Scenario Development map including:

- Existing Fixed Guideway Services
  - Metrorail
  - Metromover
  - Tri-Rail
  - Brightline
- SMART Corridors
  - North
  - Northeast
  - East-West
  - Beach
  - Kendall
  - South

- Additional Corridors previously assessed by the TPO were also included in this scenario vision, including the following:
  - NW 7 Avenue
  - NW/SW 27 Avenue
  - NW 183 Street
  - SW Miami Dade CSX Corridor
- At the TPO's request, an additional future-looking corridor was included:
  - A potential commuter rail line parallel to the Florida's Turnpike from Homestead in the south to the Broward County border around NW 27 Avenue. This corridor could bridge connections for several SMART Plan corridors and other corridors identified in this study.

Overall, the intent of the Vision Map is to provide a synthesized transit connectivity vision for Miami-Dade County that provides its residents, workers, and visitors with an assortment of premium transit corridors for mobility that interconnects with other corridors, thereby maximizing the opportunities for people to be able to use transit, reduce their reliance on private vehicles, reduce demands for roadway expansions in Miami-Dade County, and overall improve the quality of life.

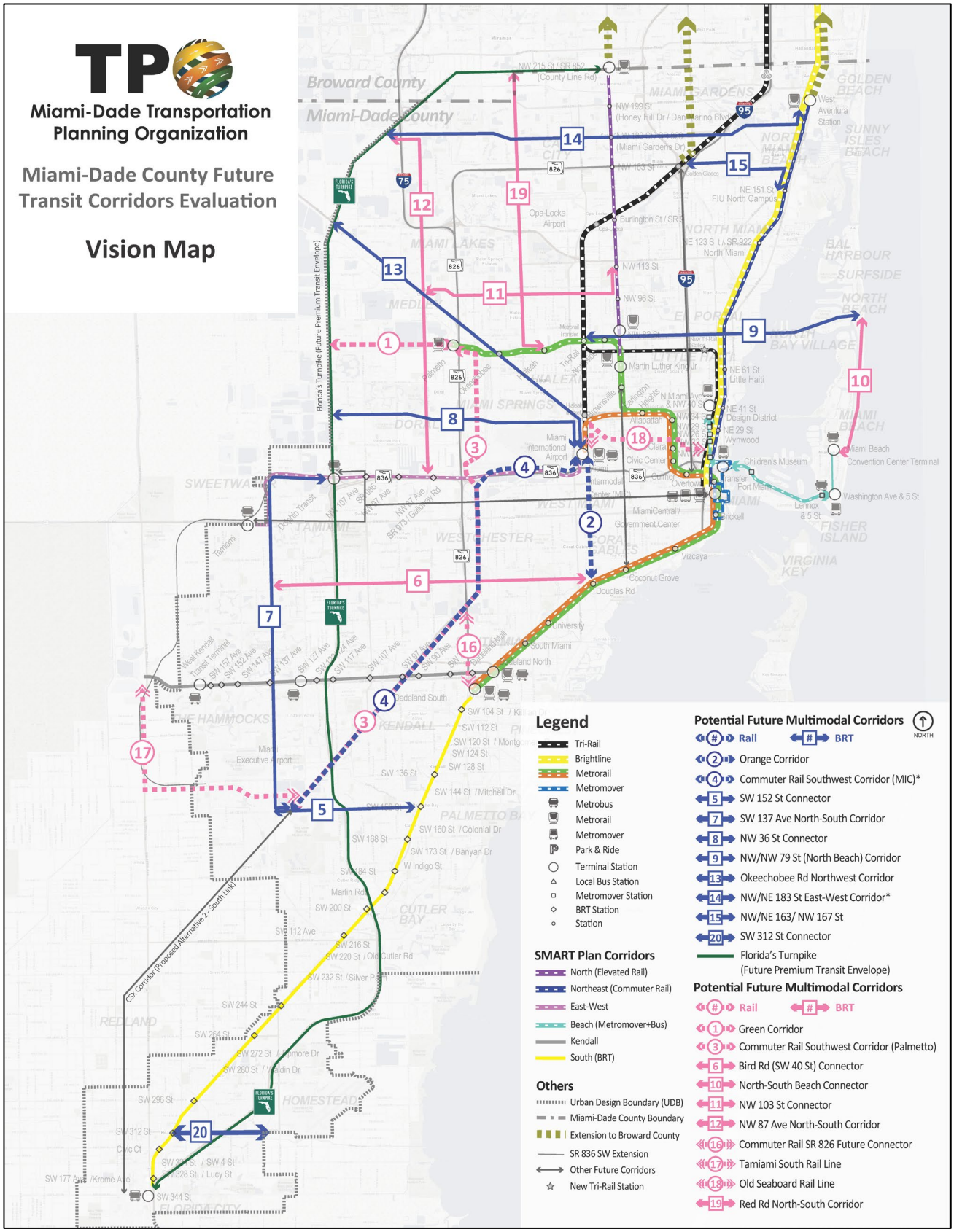

Figure 6-1: The Overall Future Corridors 2.0 & 3.0: The Vision Map

6.2 Scenarios for Each Future Corridor 2.0

6.2.1 Corridor 2 – Metrorail Orange Extension

6.2.1.1 Corridor Characteristics

The Metrorail Orange Extension would be a 4.5-mile rail rapid transit corridor that extends the Metrorail Orange Line, north-south between the Miami Intermodal Center (MIC) and US-1 at the Dougals Road Metrorail Station. **Table 6-1** depicts the proposed operating characteristics for this corridor. It operates with 10-15 minutes headways, following the operating frequency of the existing Metrorail service. The operating speed would be 30 miles per hour, which the same during peak and off-peak hours. This corridor would have six (6) stations serving both directions, including four (4) new stations, and two (2) existing stations.

Table 6-1: Corridor 2 Operating Characteristics

Corridor 2 Operating Characteristics			
Corridor Mode	Heavy Rail	Frequency (peak/off-peak)	10/15 minutes
Corridor Length	4.51 miles	Speed (peak/off-peak)	30 miles per hour
Number of stops	6 (bi-directional)		
Stop Locations	• Douglas Road Station • SW 37 Avenue @ Coral Way • SW 37 Avenue @ SW 8 Street / Tamiami Trail • SW 37 Avenue @ W Flagler Street • SW 37 Avenue @ NW 7 Street • Miami Intermodal Center		

6.2.1.2 Corridor Connectivity

Corridor 2 would connect to the anticipated future transit network including:

- Metrorail Orange Line and Green Line at the Douglas Road Station
- Metrorail Orange Line, Tri-Rail, the SMART 1.0 North Corridor, and the SMART 1.0 East-West Corridor at the MIC

It would also connect to the other Future Corridors 2.0 including:

- Corridor 4
- Corridor 8
- Corridor 13

Corridor 2 would be an important north-south corridor, crossing four east-west arterials – Coral Way, SW 8 Street, W Flagler Street, and NW 7 Street. **Figure 6-2** Figure shows the Corridor 2 map.

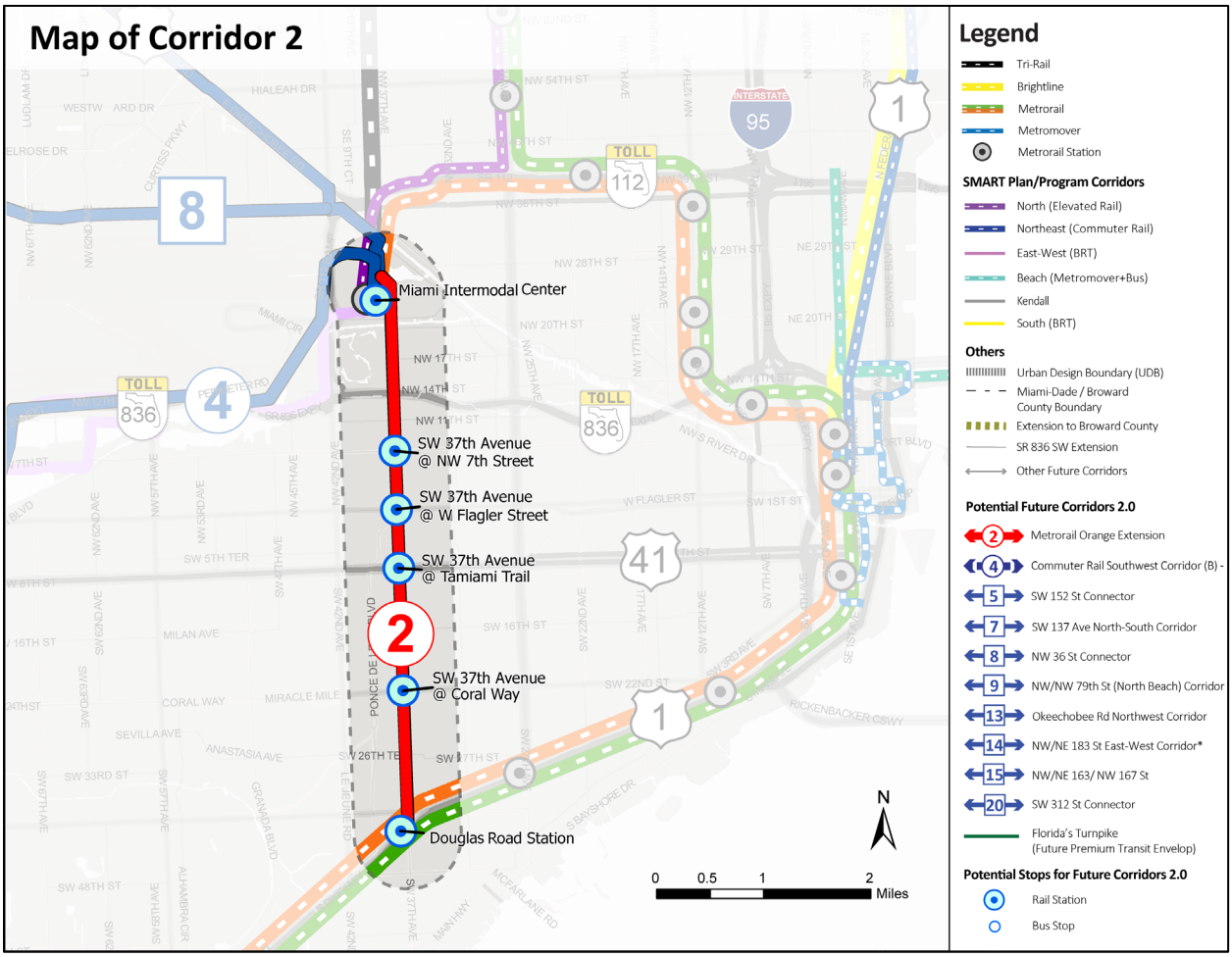

Figure 6-2: Map of Corridor 2 – Metrorail Orange Extension

6.2.1.3 Ridership Forecasts

Corridor 2 ridership forecasts for 2045 by access mode are summarized in **Table 6-2**. The STOPS Model forecasted over 12,000 daily boardings on the Metrorail Orange Extension (Corridor 2). As it is an extension to existing Metrorail, this boardings number does not include riders boarding at the existing Metrorail stations.

Table 6-2 also shows additional ridership forecasting metrics for 2045. Trips from transit dependent households are expected to be 29 percent of the total trips. Incremental linked transit trips are expected to be 37 percent of the total trips on project. Daily Vehicle Miles Traveled (VMT) would be reduced on average by over 20,000 miles.

The county level boarding forecasts for the 2045 No-build and 2045 Build scenarios are compared in

Table 6-3**.** This corridor is estimated to attract 15,490 daily trips to the existing transit network in Miami-Dade County, which is contained mostly within the Metrorail network.

Table 6-2: Corridor 2 Boarding Forecasts – 2045 Build

Corridor 2 Boarding Forecasts				
By Access Mode		**Additional Metrics**		
Total	**12,167**	**Linked Trips on Project**	**19,574**	**100%**
Walk	10,928	Transit Dependent Linked Trips	12,167	29%
Kiss-and-Ride	375	Incremental Linked Transit Trips	7,257	37%
Park-and-Ride	864	Daily VMT	-20,430	-

Table 6-3: Miami-Dade County Ridership Forecasts (Corridor 2 Build)

	2045 No-Build Ridership	2045 Build – Corridor 2	
		Ridership	Difference
Miami-Dade	**422,267**	**437,757**	**15,490**
Metrorail	92,020	107,488	15,468
Metromover	52,291	53,394	1,103
Metrobus	277,956	276,875	-1,081

6.2.2 Corridor 5 – SW 152 St Connector

6.2.2.1 Corridor Characteristics

The SW 152 Street Connector would be a 4.6-mile bus rapid transit corridor that extends east-west from SW 137 Avenue to US 1. **Table 6-4** depicts the operating characteristics of this corridor. The headways would be 10-15 minutes, and the operating speed would be 14 miles per hour during peak hours, and 17 miles per hour during off-peak hours. This corridor would have 16 stops, including five (5) park- and-ride stops.

Table 6-4: Corridor 5 Operating Characteristics

Corridor 5 Operating Characteristics			
Corridor Mode	Bus Rapid Transit	Frequency (peak/off-peak)	10/15 minutes
Corridor Length	4.51 miles	Speed (peak/off-peak)	14/17 miles per hour
Number of stops	16		
Stop Locations	• SW 152 Street @ Lindgren Road • SW 152 Street @ SW 134 Place (2) • SW 152 Street @ SW 129 Avenue (2) • SW 152 Street @ SW 127 Avenue (2) • SW 152 Street @ SW 120 Avenue (2) • SW 152 Street @ SW 117 Avenue (2) • SW 152 Street @ SW 112 Avenue (2) • SW 152 Street @ SW 102 Avenue (2) • SW 152 Street Transitway Park & Ride		

6.2.2.2 Corridor Connectivity

Corridor 5 would connect to the anticipated future transit network including:

- SMART 1.0 South Corridor at SW 152 Street Transitway.

It would also connect to the other Future Corridors 2.0 including:

- Corridor 4
- Corridor 7

Corridor 5 would be an important east-west corridor in Kendall. It may provide more development opportunities for the southwest part of Miami-Dade County. **Figure 6-3** shows the map for Corridor 2.

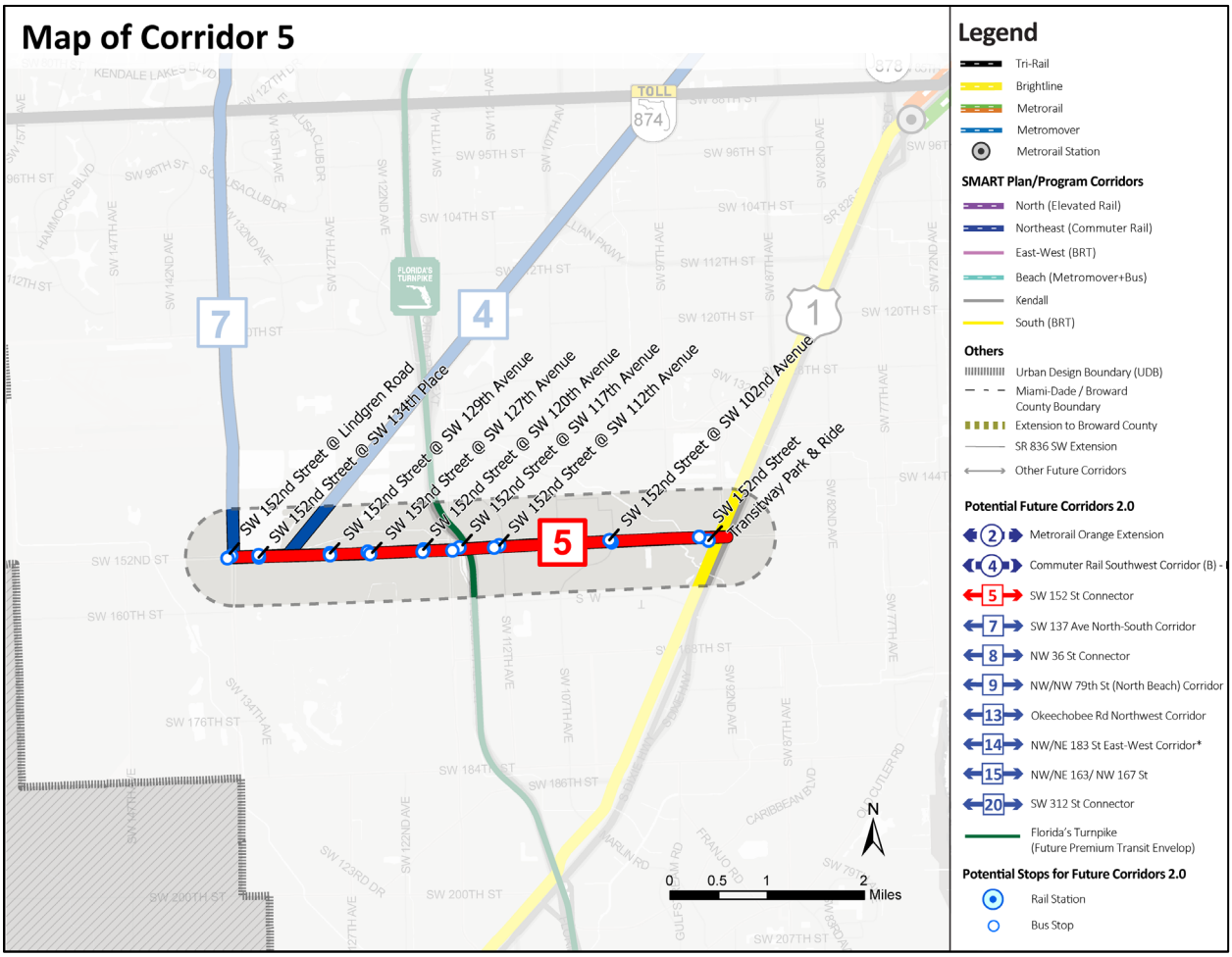

Figure 6-3: Map of Corridor 5 – SW 152 St Connector

6.2.2.3 Ridership Forecasts

Corridor 5 ridership forecasts for 2045 by access mode are summarized in **Table 6-5**. The Simplified Trips-on-Project Software (STOPS) Model forecasted 400 daily boardings on the SW 152 Street Connector (Corridor 5).

Table 6-5 also shows additional ridership forecasting metrics for the 2045 Build scenario. Trips from transit dependent households are expected to be 22 percent of the total trips. Incremental linked transit trips are expected to be 14 percent of the total trips on project. VMT would be reduced on average by 590 miles.

The county level boarding forecasts for the 2045 No-build and 2045 Build scenarios are compared in **Table 6-6.** This corridor is estimated to bring over 250 daily ridership to the existing transit network in Miami-Dade County, most of the ridership increase is on the Metrobus network.

Table 6-5: Corridor 5 Boarding Forecasts - 2045 Build

Corridor 5 Boarding Forecasts				
By Access Mode		**Additional Metrics**		
Total	**400**	**Linked Trips on Project**	**400**	**100%**
Walk	327	Transit Dependent Linked Trips	88	22%
Kiss-and-Ride	40	Incremental Linked Transit Trips	56	14%
Park-and-Ride	33	Daily VMT	-590	-

Table 6-6: Miami-Dade County Ridership Forecasts (Corridor 5 Build)

	2045 No-Build Ridership	2045 Build – Corridor 5	
		Ridership	Difference
Miami-Dade	**422,267**	**422,524**	**257**
Metrorail	92,020	92,018	-2
Metromover	52,291	52,297	6
Metrobus	277,956	278,209	253

6.2.3 Corridor 7 – SW 137 Ave North-South Corridor

6.2.3.1 Corridor Characteristics

The SW 137 Avenue north-south corridor would be a 13-mile bus rapid transit corridor that extends primarily north-south between the Dolphin Station and SW 152 Street. **Table 6-7** depicts the operating characteristics of this corridor. The headways would be 10-15 minutes, and the operating speed would be 14 miles per hour during peak hours, and 17 miles per hour during off-peak hours. This corridor would have 25 stops, including seven (7) park and ride stops.

Table 6-7: Corridor 7 Operating Characteristics

Corridor 7 Operating Characteristics			
Corridor Mode	Bus Rapid Transit	Frequency (peak/off-peak)	10/15 minutes
Corridor Length	13.02 miles	Speed (peak/off-peak)	14/17 miles per hour
Number of stops	25		
Stop Locations	• SW 152 Street @ SW 134 Place (2) • SW 137 Avenue @ SW 152 Street (2) • SW 137 Avenue @ SW 136 Street (2) • SW 137 Avenue @ SW 120 Street (2) • SW 137 Avenue @ SW 104 Street (2) • SW 137 Avenue @ SW 88 Street (2) • SW 137 Avenue @ SW 72 Street (2) • SW 137 Avenue @ SW 56 Street (2) • SW 137 Avenue @ SW 42 Street (2) • SW 137 Avenue @ SW 26 Street (2) • SW 137 Avenue @ Tamiami Trail (2) • NW 12 Street @ NW 127 Avenue (2) • Dolphin Station Park & Ride		

6.2.3.2 Corridor Connectivity

Corridor 7 would connect to the anticipated future transit network including:

- The SMART 1.0 East-West Corridor at the Dolphin Station Park & Ride.

It would also connect to the other Future Corridors 2.0 including:

- Corridor 4
- Corridor 5

Corridor 7 would be a north-south corridor in the west part of the county, parallel to the Florida's Turnpike. It would be the closet arterial to the County's Urban Design Boundary. **Figure 6-4** shows the map for Corridor 7.

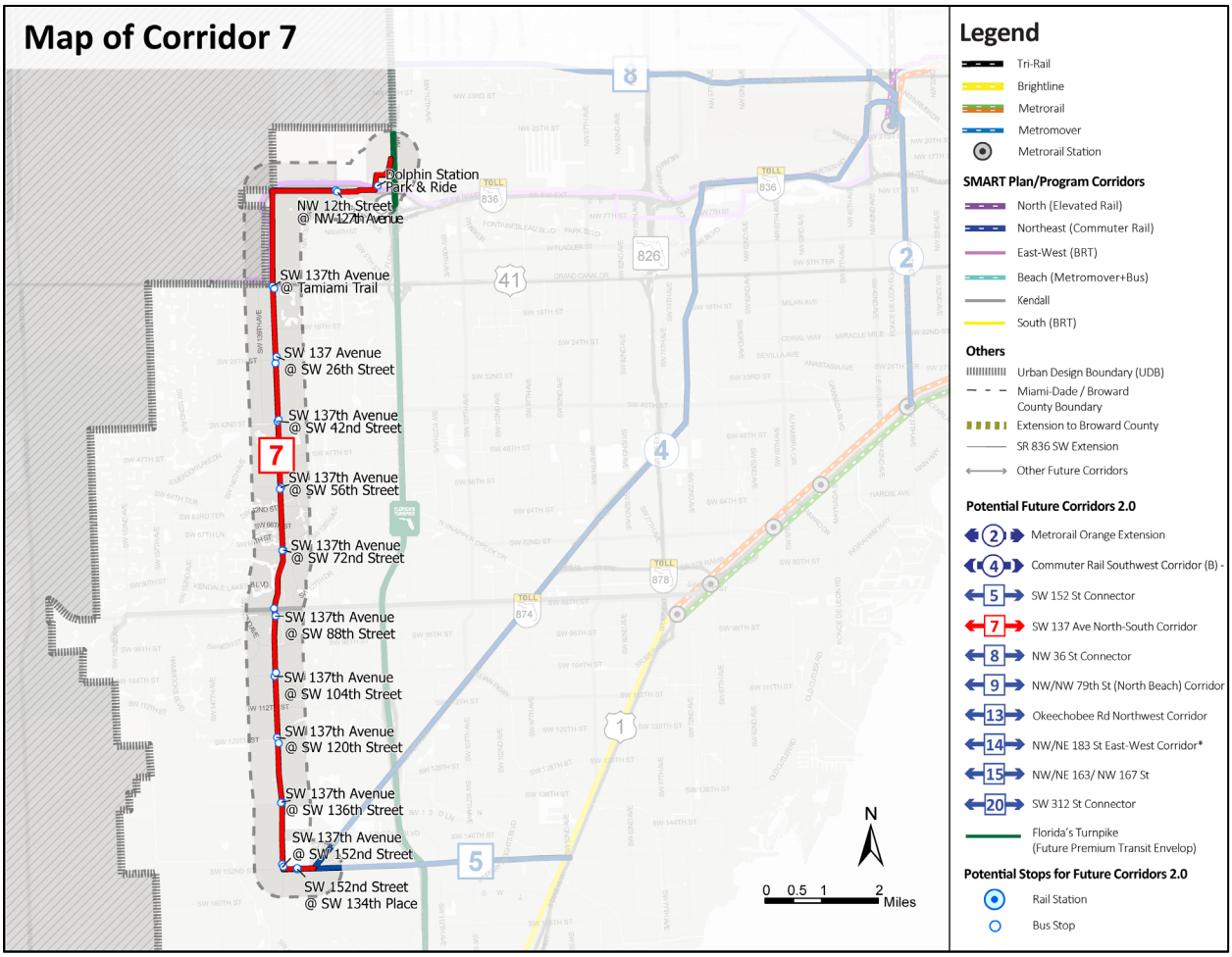

Figure 6-4: Map of Corridor 7 – SW 137 Ave North-South Corridor

6.2.3.3 Ridership Forecasts

Corridor 7 ridership forecasts for 2045 by access mode are summarized in **Table 6-8**. The STOPS Model forecasted over 1,400 daily boardings on the SW 137 Avenue north-south corridor (Corridor 7).

Table 6-8 also shows additional ridership forecasting metrics for the 2045 Build scenario. Trips from transit dependent households are expected to be 58 percent of the total trips. Incremental linked transit trips are expected to be 20 percent of the total trips on project. Daily VMT would be reduced on average by over 900 miles.

The county level boarding forecasts for the 2045 No-build and 2045 Build scenarios are compared in **Table 6-9.** This corridor is estimated to bring about 450 daily ridership to the existing transit network in Miami-Dade County, most of the ridership increase is on the Metrobus network.

Table 6-8: Corridor 7 Boarding Forecasts - 2045 Build

Corridor 7 Boarding Forecasts				
By Access Mode		**Additional Metrics**		
Total	**1,409**	**Linked Trips on Project**	**1,409**	**100%**
Walk	1,208	Transit Dependent Linked Trips	821	58%
Kiss-and-Ride	87	Incremental Linked Transit Trips	280	20%
Park-and-Ride	114	Daily VMT	-936	-

Table 6-9: Miami-Dade County Ridership Forecasts (Corridor 7 Build)

	2045 No-Build Ridership	2045 Build – Corridor 7	
		Ridership	Difference
Miami-Dade	**422,267**	**422,720**	**453**
Metrorail	92,020	91,781	-239
Metromover	52,291	52,310	19
Metrobus	277,956	278,629	673

6.2.4 Corridor 8 – NW 36 St Connector

6.2.4.1 Corridor Characteristics

The NW 36 Street Connector would be a 9.5-mile bus rapid transit corridor that extends east-west from the Florida's Turnpike to the Miami Intermodal Center (MIC). **Table 6-10** depicts the operating characteristics of this corridor. The headways would be 10-15 minutes, and the operating speed would be 14 miles per hour during peak hours, and 17 miles per hour during off-peak hours. This corridor would have 25 stops, including three (3) Park- and-Ride stops.

Table 6-10: Corridor 8 Operating Characteristics

Corridor 8 Operating Characteristics			
Corridor Mode	Bus Rapid Transit	Frequency (peak/off-peak)	10/15 minutes
Corridor Length	9.51 miles	Speed (peak/off-peak)	14/17 miles per hour
Number of stops	25		
Stop Locations	• Miami Dade College – West Campus (2) • NW 115 Avenue @ NW 39 Street (2) • NW 36 Street @ NW 114 Avenue (2) • NW 36 Street @ NW 107 Avenue (2) • NW 36 Street @ NW 97 Avenue (2) • NW 36 Street @ NW 87 Avenue (2) • NW 36 Street @ NW 83rd Avenue (2) • NW 36 Street @ NW 79 Avenue (2) • NW 36 Street @ Milam Dairy Road (2) • NW 36 Street @ NW 57 Avenue (2) • NW 36 Street @ East Drive (2) • NW S River Drive @ NW 42 Avenue (2) • Miami Intermodal Center		

6.2.4.2 Corridor Connectivity

Corridor 2 would connect to the anticipated future transit network including:

- Metrorail Orange Line and Green Line at Douglas Metro Station
- Metrorail Orange Line, Tri-Rail, the SMART 1.0 North Corridor, and the SMART 1.0 East-West Corridor at MIC Station

It would also connect to the other Future Corridors 2.0 including:

- Corridor 2
- Corridor 4
- Corridor 13

Corridor 8 would operate in parallel to the SMART 1.0 East-West Corridor. This corridor would increase the connectivity of Doral and Miami Springs. **Figure 6-5** shows the map for Corridor 8.

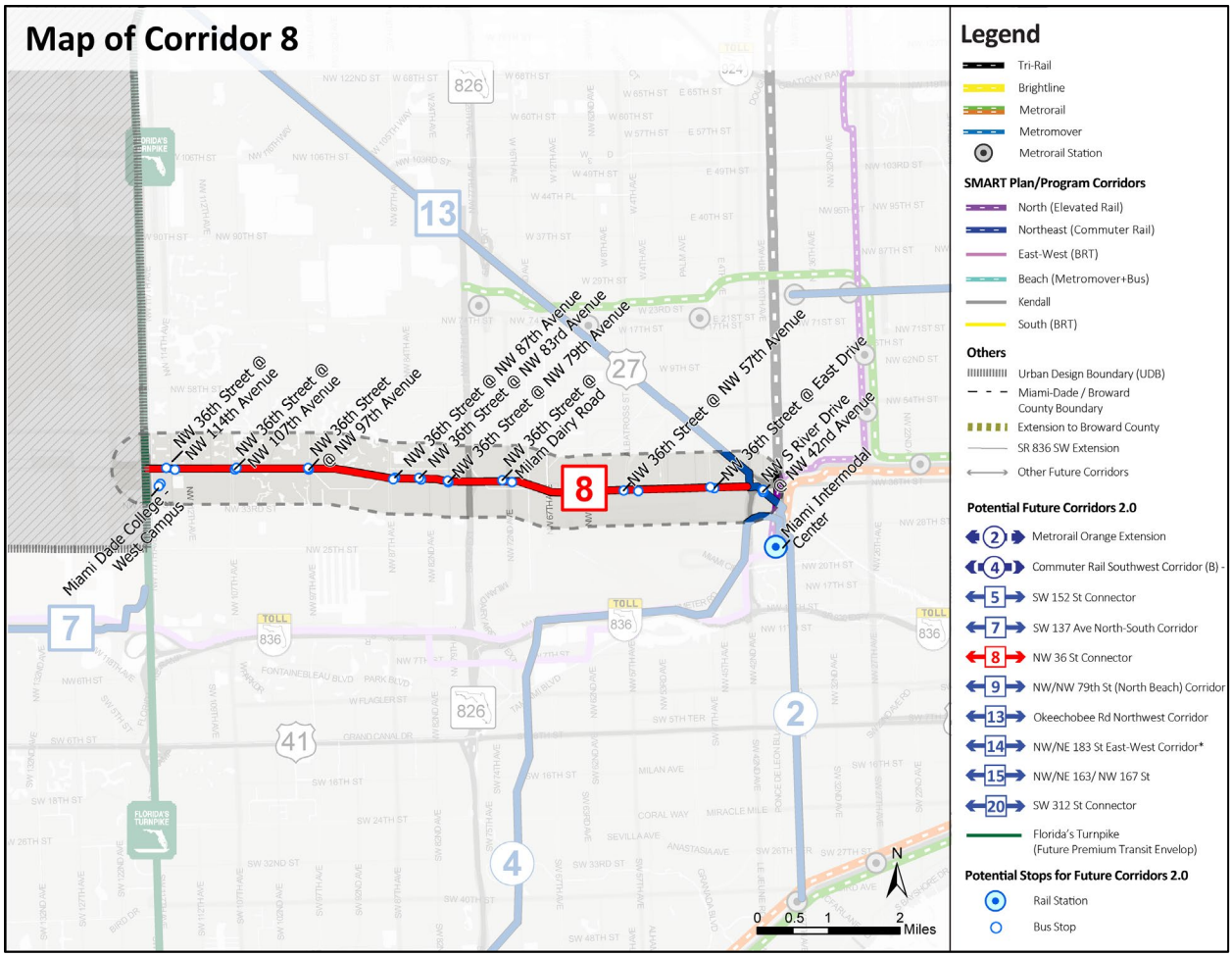

Figure 6-5: Map of Corridor 8 – NW 36 St Connector

6.2.4.3 Ridership Forecasts

Corridor 8 ridership forecasts for 2045 by access mode are summarized in

Table 6-11**.** The STOPS Model forecasted 989 daily boardings on the NW 36 Street Connector (Corridor 8).

Table 6-5 also shows additional ridership forecasting metrics for the 2045 Build scenario. Trips from transit dependent households are expected to be 11 percent of the total trips. Daily VMT would be reduced on average by around 240 miles.

The county level boarding forecasts for the 2045 No-build and 2045 Build scenarios are compared in **Table 6-12.**

Table 6-11: Corridor 8 Boarding Forecasts - 2045 Build

Corridor 8 Boarding Forecasts				
By Access Mode		**Additional Metrics**		
Total	**989**	**Linked Trips on Project**	**989**	**100%**
Walk	692	Transit Dependent Linked Trips	109	11%
Kiss-and-Ride	186	Incremental Linked Transit Trips	0	0%
Park-and-Ride	111	Daily VMT	-240	-

Table 6-12: Miami-Dade County Ridership Forecasts (Corridor 8 Build)

	2045 No-Build Ridership	2045 Build – Corridor 8	
		Ridership	Difference
Miami-Dade	**422,267**	**422,205**	**-62**
Metrorail	92,020	91,553	-467
Metromover	52,291	52,288	-3
Metrobus	277,956	278,364	408

6.2.5 Corridor 9 – NE/NW 79 St (North Beach) Corridor

6.2.5.1 Corridor Characteristics

The NE/NW 79 St (North Beach) Corridor would be a 9.3-mile bus rapid transit corridor that extends east-west from the Tri-Rail/ Metrorail Transfer Station to A1A (Alton Road). **Table 6-13** depicts the operating characteristics of this corridor. The headways would be 10-15 minutes, and the operating speed would be 14 miles per hour during peak hours, and 17 miles per hour during off-peak hours. This corridor would have 24 stops, including three (3) Park-and-Ride stops.

Table 6-13: Corridor 9 Operating Characteristics

Corridor 9 Operating Characteristics			
Corridor Mode	Bus Rapid Transit	Frequency (peak/off-peak)	10/15 minutes
Corridor Length	9.32 miles	Speed (peak/off-peak)	14/17 miles per hour
Number of stops	24		
Stop Locations	• Tri-Rail/Metrorail Transfer Station • Northside Transit Village (2) • NW 79 Street @ NW 27 Avenue (2) • NW 79 Street @ NW 22 Avenue (2) • NW 79 Street @ NW 12 Avenue (2) • NW 79 Street @ NW 7 Avenue (2) • NW 79 Street @ NW 1 Place (2) • NW 79 Street @ Biscayne Boulevard (2) • NW 79 Street @ N Bayshore Drive (2) • NW 79 Street @ Harbor Isla Drive (2) • NW 79 Street @ #1800 (2) • NW 71 Street @ Rue Notre Dame (2) • NW 71 Street @ Byron Avenue		

6.2.5.2 Corridor Connectivity

Corridor 9 would connect to the anticipated future transit network including:

- Tri-Rail and Metrorail Green Line at Tri-Rail/Metrorail Transfer Station
- Metrorail Green Line at Northside Transit Village Station
- The SMART 1.0 North Corridor potentially at NW 27 Avenue
- The SMART 1.0 Northeast Corridor potentially at Biscayne Boulevard

Corridor 9 creates an alternative option for accessing jobs in the north beach area of Miami Beach. The transit service would help reduce the congestion on I-195 and I-395. **Figure 6-6** shows the map for Corridor 9.

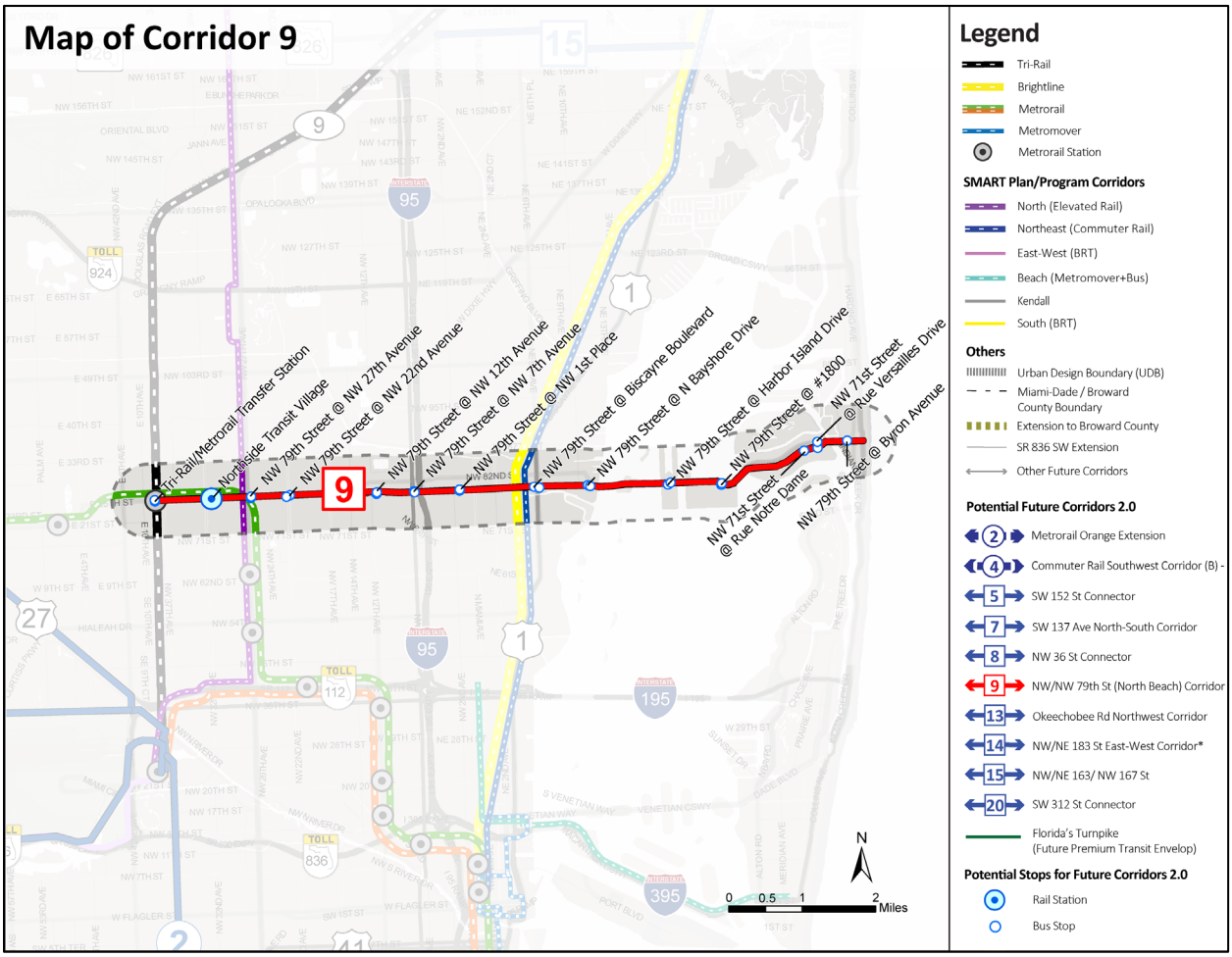

Figure 6-6: Map of Corridor 9 – NW/NW 79 St (North Beach) Corridor

6.2.5.3 Ridership Forecasts

Corridor 9 ridership forecasts for 2045 by access mode are summarized in **Table 6-14**. The STOPS Model forecasted over 6,000 daily boardings on the NE/NW 79 Street (North Beach) Corridor (Corridor 9).

Table 6-14 also shows additional ridership forecasting metrics for the 2045 Build scenario. Trips from transit dependent households are expected to be 50 percent of the total trips. This high percentage is tied to the fact that the corridor provides access to a significant number of service-related jobs in the hotels and restaurants on Miami Beach. These jobs are often low-income, which makes vehicle ownership less attainable. This corridor's incremental linked transit trips are expected to be 18 percent of the total trips on project. Daily VMT daily basis would be reduced on average by over 4,100 miles.

The county level boarding forecasts for the 2045 No-build and 2045 Build scenarios are compared in **Table 6-15.** This corridor is estimated to bring about 3,200 daily ridership to the existing transit network in Miami-Dade County, most of the ridership increase is on the Metrobus network.

Table 6-14: Corridor 9 Boarding Forecasts - 2045 Build

Corridor 9 Boarding Forecasts				
By Access Mode		**Additional Metrics**		
Total	**6,022**	**Linked Trips on Project**	**6,022**	**100%**
Walk	4,813	Transit Dependent Linked Trips	2,989	50%
Kiss-and-Ride	257	Incremental Linked Transit Trips	1,103	18%
Park-and-Ride	951	Daily VMT	-208	-

Table 6-15: Miami-Dade County Ridership Forecasts (Corridor 9 Build)

	2045 No-Build Ridership	2045 Build – Corridor 9	
		Ridership	Difference
Miami-Dade	**422,267**	**425,452**	**3,185**
Metrorail	92,020	91,129	-891
Metromover	52,291	52,224	-67
Metrobus	277,956	282,099	4,143

6.2.6 Corridor 13 – Okeechobee Rd Northwest Corridor

6.2.6.1 Corridor Characteristics

The Okeechobee Road Northwest Corridor would be a 11.5-mile bus rapid transit corridor that extends southeast-northwest from the Miami Intermodal Center (MIC) to the Florida's Turnpike. **Table 6-16** depicts the operating characteristics of this corridor. The headways would be 10-15 minutes, and the operating speed would be 14 miles per hour during peak hours, and 17 miles per hour during off-peak hours. This corridor would have 14 stops all serving both directions, including four (4) Park-and-Ride stops.

Table 6-16: Corridor 13 Operating Characteristics

Corridor 13 Operating Characteristics			
Corridor Mode	Bus Rapid Transit	Frequency (peak/off-peak)	10/15 minutes
Corridor Length	11.56 miles	Speed (peak/off-peak)	14/17 miles per hour
Number of stops	14 (bi-directional)		
Stop Locations	• Miami Intermodal Center • NW S River Drive @ NW 42 Avenue • N LeJeune Road @ S Royal Poinciana Road • Okeechobee Road @ East Drive • Okeechobee Road @ Palm Avenue • Okeechobee Road @ Red Road • Okeechobee Road @ W 19 Street • Okeechobee Road @ W 18 Avenue • Okeechobee Road @ NW 79 Avenue • Okeechobee Road @ NW 87 Avenue • Okeechobee Road @ NW 116 Way • Okeechobee Road @ NW 121 Way • Okeechobee Road @ NW 107 Avenue • Okeechobee Road @ The Florida's Turnpike		

6.2.6.2 Corridor Connectivity

Corridor 13 would connect to the anticipated future transit network including:

- Metrorail Orange Line, Tri-Rail, the SMART 1.0 North Corridor, and the SMART 1.0 East-West Corridor at MIC Station
- Metrorail Green Line at Okeechobee Station (W 19 Street)

It would also connect to the other Future Corridors 2.0 including:

- Corridor 2

- Corridor 4
- Corridor 8

Corridor 13 along Okeechobee Road would connect Hialeah, Hialeah Gardens, Medley, and Miami Springs. **Figure 6-7** shows the map for Corridor 13.

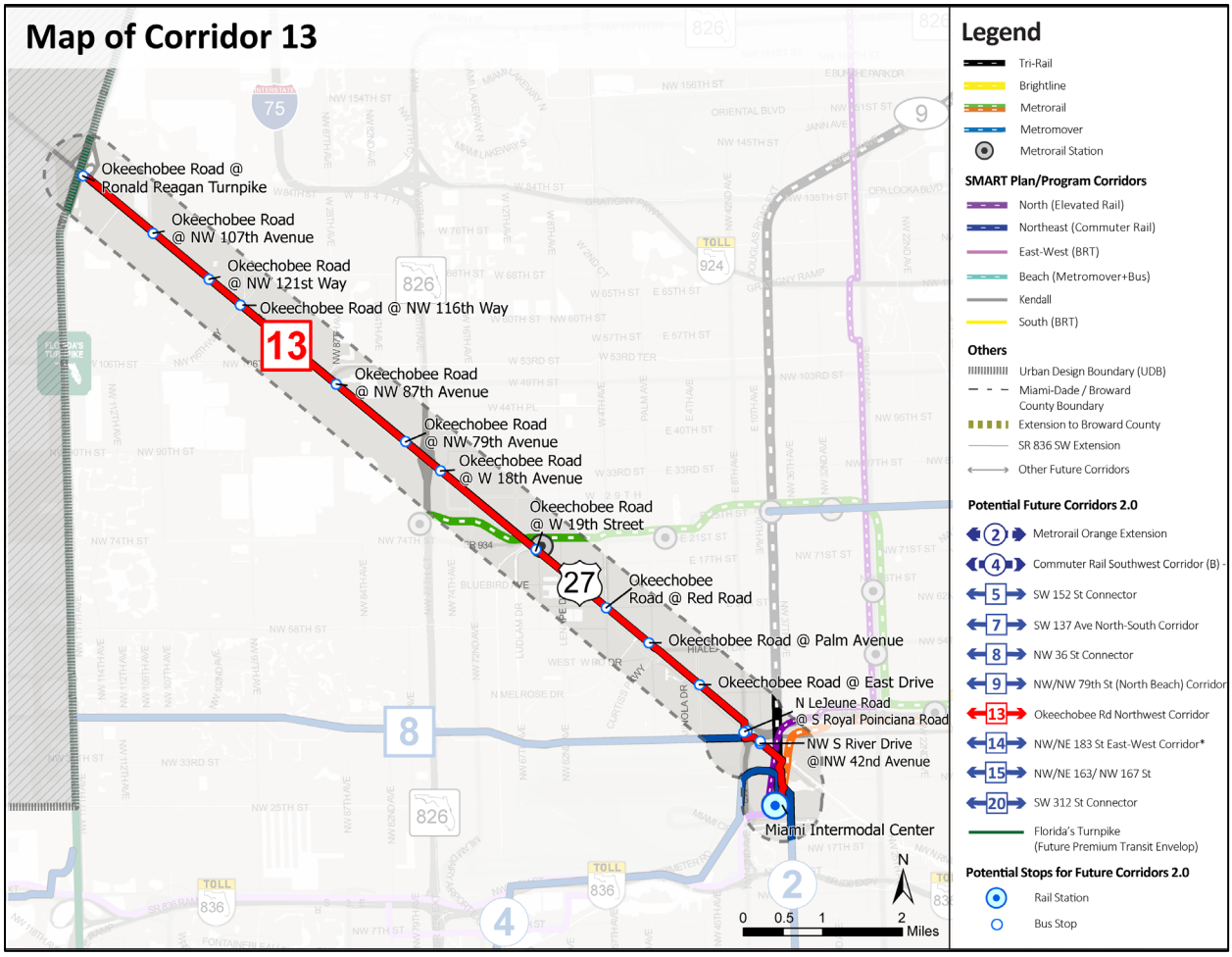

Figure 6-7: Map of Corridor 13 – Okeechobee Rd Northwest Corridor

6.2.6.3 Ridership Forecasts

Corridor 13 ridership forecasts for 2045 by access mode are summarized in **Table 6-17**. The STOPS Model forecasted 2,100 daily boardings on the Okeechobee Road Northwest Corridor (Corridor 13).

Table 6-17 also shows additional ridership forecasting metrics for the 2045 Build scenario. Trips from transit dependent households are expected to be 31 percent of the total trips. Incremental linked transit trips are expected to be 12 percent of the total trips on project. Daily VMT would be reduced on average by over 1,100 miles.

The county level boarding forecasts for the 2045 No-build and 2045 Build scenarios are compared in **Table 6-18.** This corridor is estimated to bring over 400 daily ridership to the existing transit network in Miami-Dade County, most of the ridership increase is on the Metrobus network.

Table 6-17: Corridor 13 Boarding Forecasts 2045 Build

Corridor 13 Ridership Forecasts				
By Access Mode		**Additional Metrics**		
Total	**2,100**	**Linked Trips on Project**	**2,100**	**100%**
Walk	1,888	Transit Dependent Linked Trips	646	31%
Kiss-and-Ride	97	Incremental Linked Transit Trips	249	12%
Park-and-Ride	114	Daily VMT	-1,103	-

Table 6-18: Miami-Dade County Ridership Forecasts (Corridor 13 Build)

	2045 No-Build Ridership	2045 Build – Corridor 13	
		Ridership	Difference
Miami-Dade	**422,267**	**422,668**	**401**
Metrorail	92,020	91,005	-1,015
Metromover	52,291	52,317	26
Metrobus	277,956	279,346	1,390

6.2.7 Corridor 15 – NW/NE 163 / NW 167 St Corridor

6.2.7.1 Corridor Characteristics

The NW/NE 163 / NW 167 Street Corridor would be a 4.9-mile bus corridor that extends primarily east-west from US 1 to the Golden Glades Multimodal Transportation Facility. **Table 6-19** depicts the operating characteristics of this corridor. The headways would be 10-15 minutes, and the operating speed would be 14 miles per hour during peak hours, and 17 miles per hour during off-peak hours. This corridor would have 13 stops, including two (2) Park-and-Ride stops.

Table 6-19: Corridor 15 Operating Characteristics

Corridor 15 Operating Characteristics			
Corridor Mode	Bus Rapid Transit	Frequency (peak/off-peak)	10/15 minutes
Corridor Length	4.87 miles	Speed (peak/off-peak)	14/17 miles per hour
Number of stops	13		
Stop Locations	• Golden Glades Intermodal Center • NE 167 Street @ N Miami Avenue (2) • NE 167 Street @ NE 6 Avenue (2) • NE 167 Street @ NE 10 Avenue (2) • NE 167 Street @ NE 15 Avenue (2) • NE 167 Street @ NE 22 Avenue (2) • NE 167 Street @ NE 151 Street (2)		

6.2.7.2 Corridor Connectivity

Corridor 15 would connect to the anticipated future transit network including:

- Tri-Rail at Golden Glades Intermodal Center
- The SMART 1.0 Northeast Corridor at NE 167 Street/NE 151 Street

Corridor 15 would be an important connector between Tri-Rail and the Northeast Corridor. **Figure 6-8** shows the map for Corridor 15.

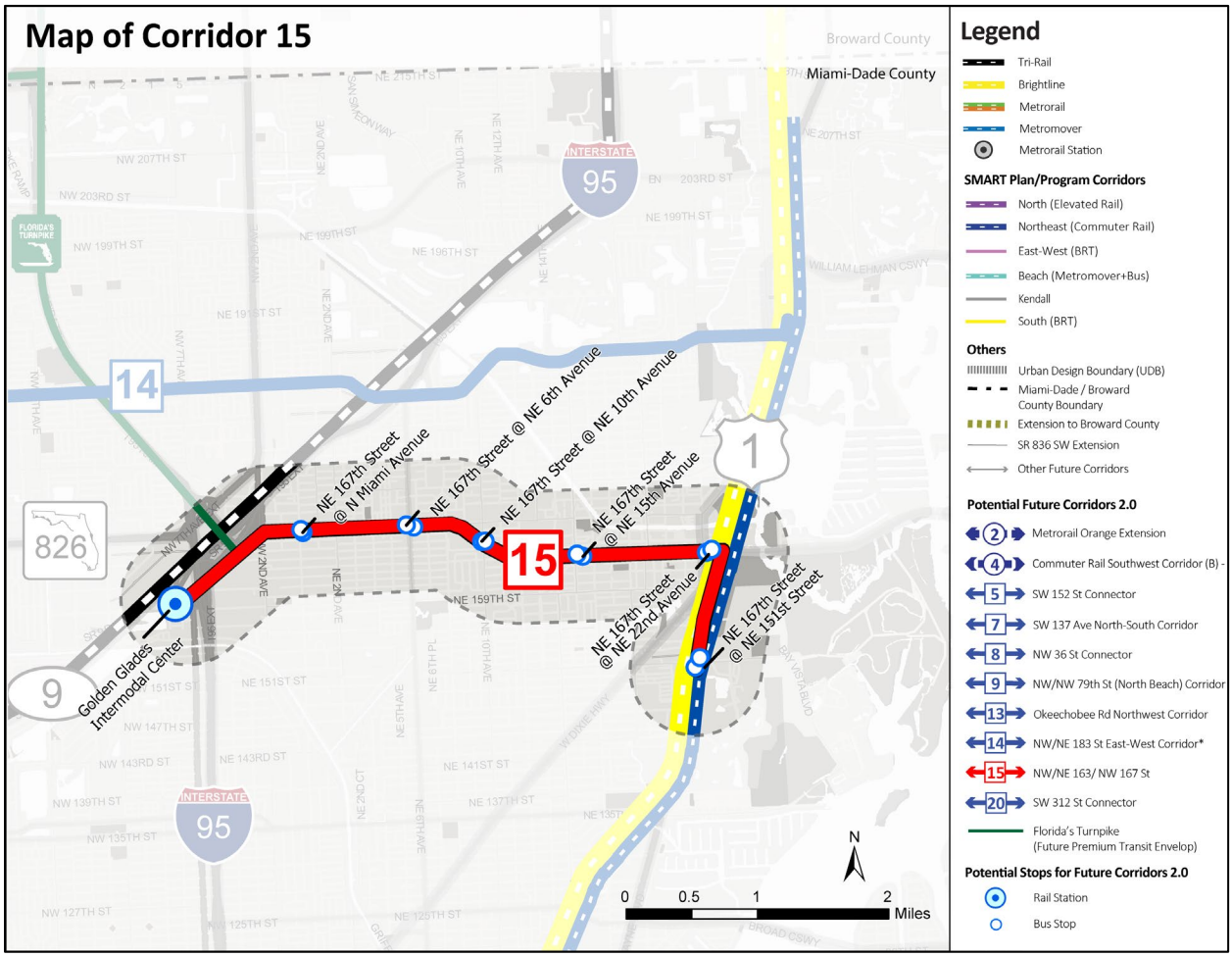

Figure 6-8: Map of Corridor 15 – NW/NE 163/ NW 167 St

6.2.7.3 Ridership Forecasts

Corridor 15 ridership forecasts for 2045 by access mode are summarized in **Table 6-20**. The STOPS Model forecasted over 1,400 daily boardings on the NW/NE 163 /NW 167 Street Corridor (Corridor 15).

Table 6-20 also shows additional ridership forecasting metrics for the 2045 Build scenario. Trips from transit dependent households are expected to be 32 percent of the total trips. Incremental linked transit trips are expected to be 45 percent of the total trips on project. Daily VMT would be reduced on average by around 2,000 miles.

The county level boarding forecasts for the 2045 No-build and 2045 Build scenarios are compared in **Table 6-21.** This corridor is estimated to bring about 1,600 daily ridership to the existing transit network in Miami-Dade County, most of the ridership increase is on the Metrobus network.

Table 6-20: Corridor 15 Boarding Forecasts 2045 Build

Corridor 15 Ridership Forecasts				
By Access Mode		**Additional Metrics**		
Total	**1,423**	**Linked Trips on Project**	**1,423**	**100%**
Walk	1,021	Transit Dependent Linked Trips	453	32%
Kiss-and-Ride	157	Incremental Linked Transit Trips	643	45%
Park-and-Ride	245	Daily VMT	-1,980	-

Table 6-21: Miami-Dade County Ridership Forecasts (Corridor 15 Build)

	2045 No-Build Ridership	2045 Build – Corridor 15	
		Ridership	Difference
Miami-Dade	**422,267**	**423,860**	**1,593**
Metrorail	92,020	91,923	-97
Metromover	52,291	52,280	-11
Metrobus	277,956	279,657	1,701

6.2.8 Corridor 20 – SW 312 St Connector

6.2.8.1 Corridor Characteristics

The SW 312 Street Connector would be a 4.3-mile bus corridor that extends east-west from US 1 to SW 137 Avenue. **Table 6-22** depicts the operating characteristics of this corridor. It has 10–15 minutes headways. The headways would be 10-15 minutes, and the operating speed would be 14 miles per hour during peak hours, and 17 miles per hour during off-peak hours. This corridor has 10 stops, including one shared station with SMART 1.0 South Corridor at SW 312 Street.

Table 6-22: Corridor 20 Operating Characteristics

Corridor 20 Operating Characteristics			
Corridor Mode	Bus Rapid Transit	Frequency (peak/off-peak)	10/15 minutes
Corridor Length	4.36 miles	Speed (peak/off-peak)	14/17 miles per hour
Number of stops	10		
Stop Locations	• SW 312 Street @ S Dixie Highway (2) • SW 312 Street @ SW 162 Avenue (2) • SW 312 Street @ SW 152 Avenue (2) • SW 312 Street @ The Charter School at Waterstone • SW 312 Street @ Baptist Way • SW 312 Street @ NE 1 Road • S Miami-Dade Busway @ SW 312 Street		

6.2.8.2 Corridor Connectivity

Corridor 20 would connect to the anticipated future transit network including:

- The SMART 1.0 South Corridor at S Miami-Dade Busway/SW 312 Street

Corridor 20 would be an important east-west corridor in the southernmost part of the county, providing transit access to a rapidly growing area that is experiencing significant investments in jobs and housing. This corridor would bring further development opportunities to the south region. **Figure 6-9** shows the map for Corridor 20.

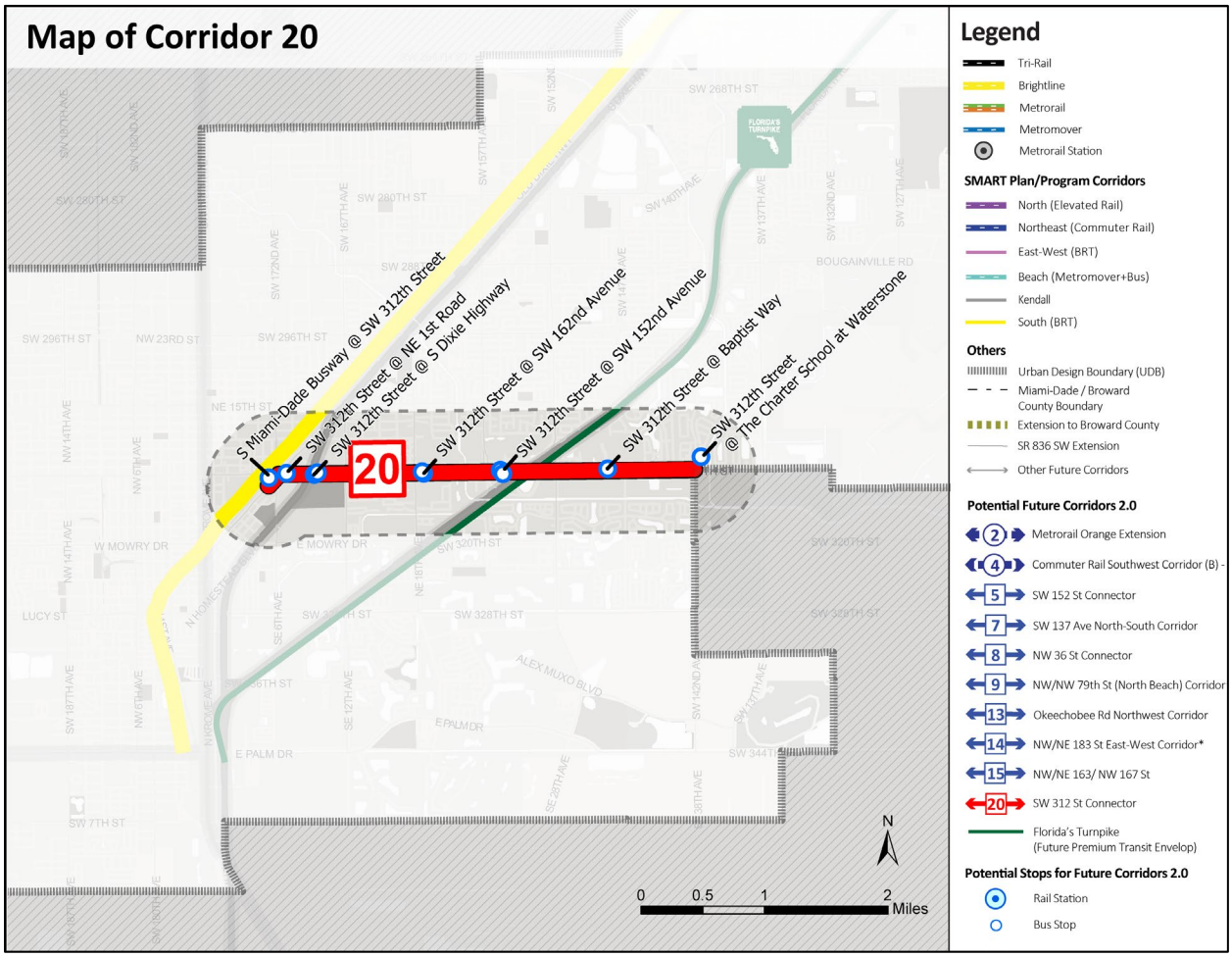

Figure 6-9: Map of Corridor 20 - SW 312 St Connector

6.2.8.3 Ridership Forecasts

Corridor 20 ridership forecasts for 2045 by access mode are summarized in

Table 6-23. The STOPS Model forecasted 400 daily boardings on the SW 312 Street Connector (Corridor 20).

Table 6-23 also shows additional ridership forecasting metrics for the 2045 Build scenario. Trips from transit dependent households are expected to be 89 percent of the total trips. Incremental linked transit trips are expected to be 12 percent of the total trips on project. Daily VMT would be reduced on average by over 800 miles.

The county level boarding forecasts for the 2045 No-build and 2045 Build scenarios are compared in **Table 6-24.** This corridor is estimated to bring about 350 daily ridership to the existing transit network in Miami-Dade County, most of the ridership increase is on the Metrobus network.

Table 6-23: Corridor 20 Boarding Forecasts 2045 Build

Corridor 20 Ridership Forecasts				
By Access Mode		**Additional Metrics**		
Total	**713**	**Linked Trips on Project**	**713**	**100%**
Walk	710	Transit Dependent Linked Trips	635	89%
Kiss-and-Ride	2	Incremental Linked Transit Trips	84	12%
Park-and-Ride	1	Daily VMT	-833	-

Table 6-24: Miami-Dade County Ridership Forecasts (Corridor 20 Build)

	2045 No-Build Ridership	2045 Build - Corridor 20	
		Ridership	Difference
Miami-Dade	**422,267**	**422,619**	**352**
Metrorail	92,020	92,089	69
Metromover	52,291	52,294	3
Metrobus	277,956	278,236	280

6.3 Regional Integration of Future Corridors 2.0 & 3.0

In developing the corridors for this analysis, connectivity to Broward County was a factor that was evaluated. Several of the routes, including those interconnecting with the North and Northeast Corridor, as well as those serving the Golden Glades Park-and-Ride will help strengthen transit ties between the two counties, as these areas overlap with existing and planned future transit services in Broward County.

In developing the Broward County Premium Mobility Plan (PREMO), Broward County Transit identified corridors that would interlink to Miami-Dade County. These include:

1. University Drive BRT – which presents a linkage opportunity to the Miami-Dade North Corridor.
2. State Road 7 BRT – which presents a linkage opportunity to the Golden Glades Terminal, and Corridor 15.
3. Broward Commuter Rail South – which presents a linkage opportunity to the Northeast Corridor.

Figure 6-10 shows the Broward County PREMO Network. As the Miami-Dade and Broward County corridors advance to PD&E studies, detailed coordination efforts should be undertaken to ensure that the transit service linkages provide comprehensive transit coverage for riders for both counties.

Figure 6-10: Broward County PREMO Network Map

6.3.1 Population Growth

A key component of identifying future transit corridors in Miami-Dade County relies on population growth forecasts. Understanding which parts of the county are anticipated to experience the greatest increases in population is essential for developing viable transit alternatives for these areas. Proactive planning efforts, when undertaken effectively, can ensure that transit upgrades are planned, designed, and built in concert with population growth. When this approach is not taken, transit investments can often carry higher price tags, as demand drives up costs, particularly for right-of-way. A map in **Figure 6-11** depicts the population and employment growth anticipated for each of the corridor in Future Corridors 2.0 & 3.0.

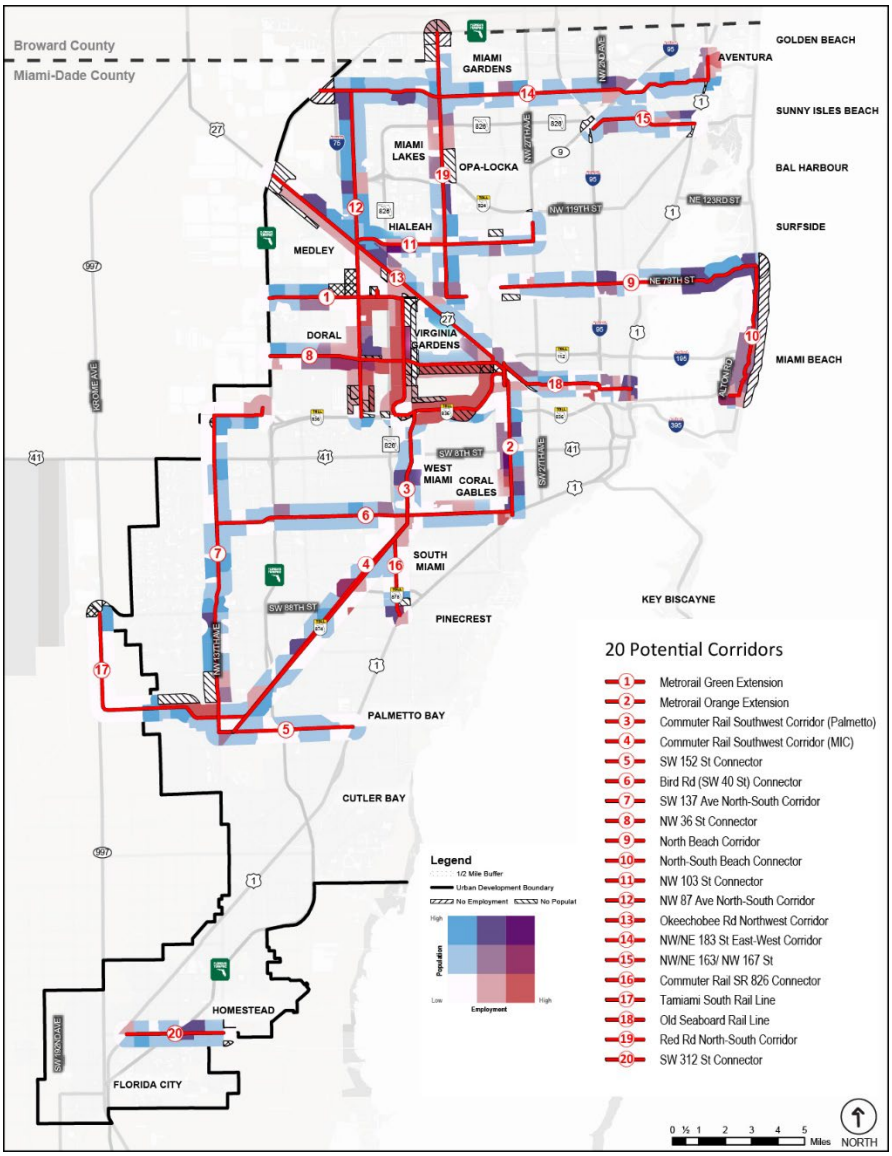

Figure 6-11: Population Growth Network

CHAPTER 7 MOVING FORWARD

The Future Corridors 2.0 & 3.0 selected corridors represent a comprehensive vision for an expanded SMART Program, aiming to create an interconnected network of rail and dedicated-lane bus rapid transit corridors serving all corners of Miami-Dade County. Moving forward, the findings and recommendations from this study will form the foundation for the ongoing development and refinement of the Future Corridors 2.0 & 3.0. The evaluated corridors, although thoroughly assessed, will require continuous updates and adjustments as new funding becomes available and as conditions on the ground evolve.

As part of the Miami-Dade TPO 2050 LRTP implementation, the entire planning and development process will span several years, during which time the transportation landscape of Miami-Dade County will inevitably change. These changes might affect the prioritization of various corridors identified in this study. For example, as each SMART 1.0 corridor enters service, the overall transit service landscape will be reshaped. Therefore, maintaining a dynamic approach to planning is crucial to ensure that the Future Corridors 2.0 and subsequent Future Corridors 3.0 visions are continually refined and updated.

A systematic review process should be established to revisit and potentially reprioritize the corridors, considering the latest data on ridership, operational performance, and emerging trends in urban development and transportation needs. The environmental analyses, operating assessments, cost estimates, and ridership projections detailed in the current study will serve as critical reference points for these future evaluations. This iterative process will help leverage new opportunities to expand and enhance the connectivity and efficiency of transit investments.

Moreover, the successful advancement of a robust transit network in Miami-Dade County will depend on a collaborative effort involving local governments, transportation agencies, community stakeholders, and funding partners. Ensuring ongoing engagement and feedback from these entities will be essential for addressing the evolving needs of the community and for securing the necessary support and resources for the program's expansion.

In addition to refining corridor plans, stakeholders must also focus on integrating new technologies and innovative transit solutions. This could include exploring the potential of autonomous vehicles, enhancing real-time data collection and analysis for improved service management, and adopting sustainable practices to minimize environmental impact. By staying at the forefront of transit innovation, Miami-Dade County can offer more efficient, reliable, and user-friendly services.

Finally, public outreach and education will play a pivotal role in the success of the network vision laid out in this study. Informing residents about the benefits of the expanded transit network and encouraging its use will help build a strong ridership base and ensure the long-term viability of

the corridors. Efforts should be made to address any concerns and to highlight the positive impacts on community connectivity, economic development, and quality of life.

Moving forward, stakeholders must be committed to continuous improvement, adaptive planning, and collaboration. By embracing these principles, Miami-Dade County can realize the vision of a robust, interconnected transit network that meets the needs of its residents in the future.

Appendix A

Supplementary Maps

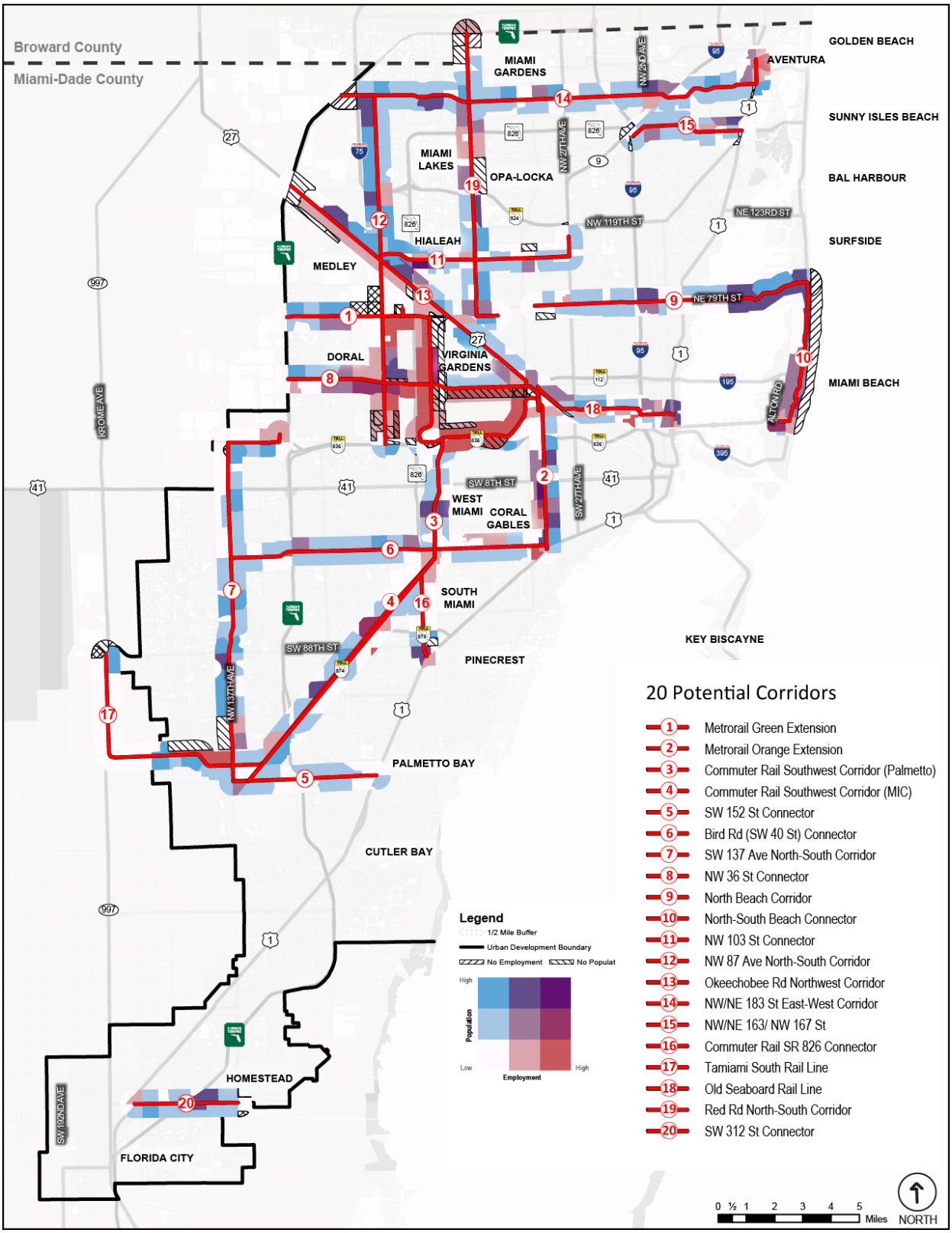

Figure A1: 2050 Population and Employment Density Map

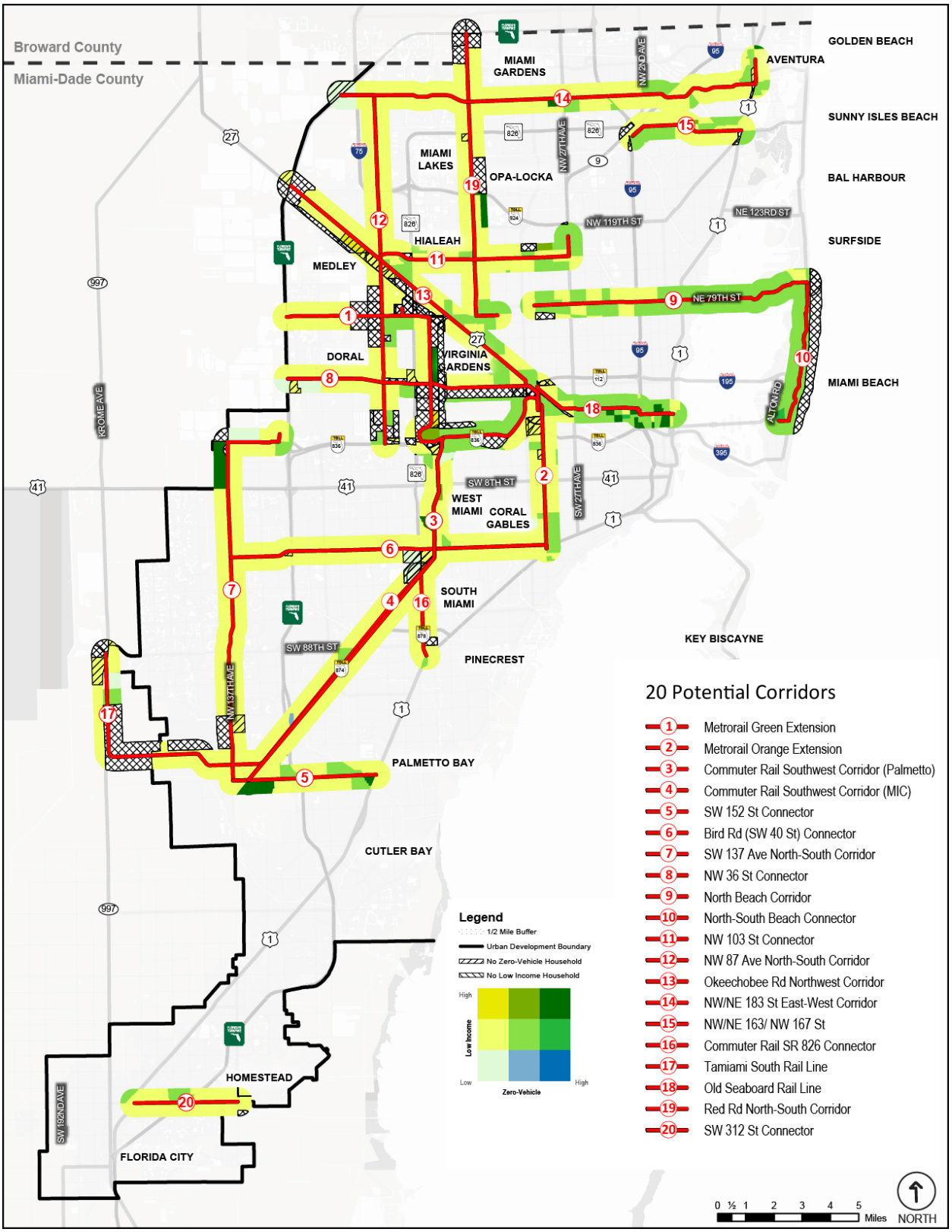

Figure A2: 2050 Zero-Vehicle Household and Low-Income Household Density Map

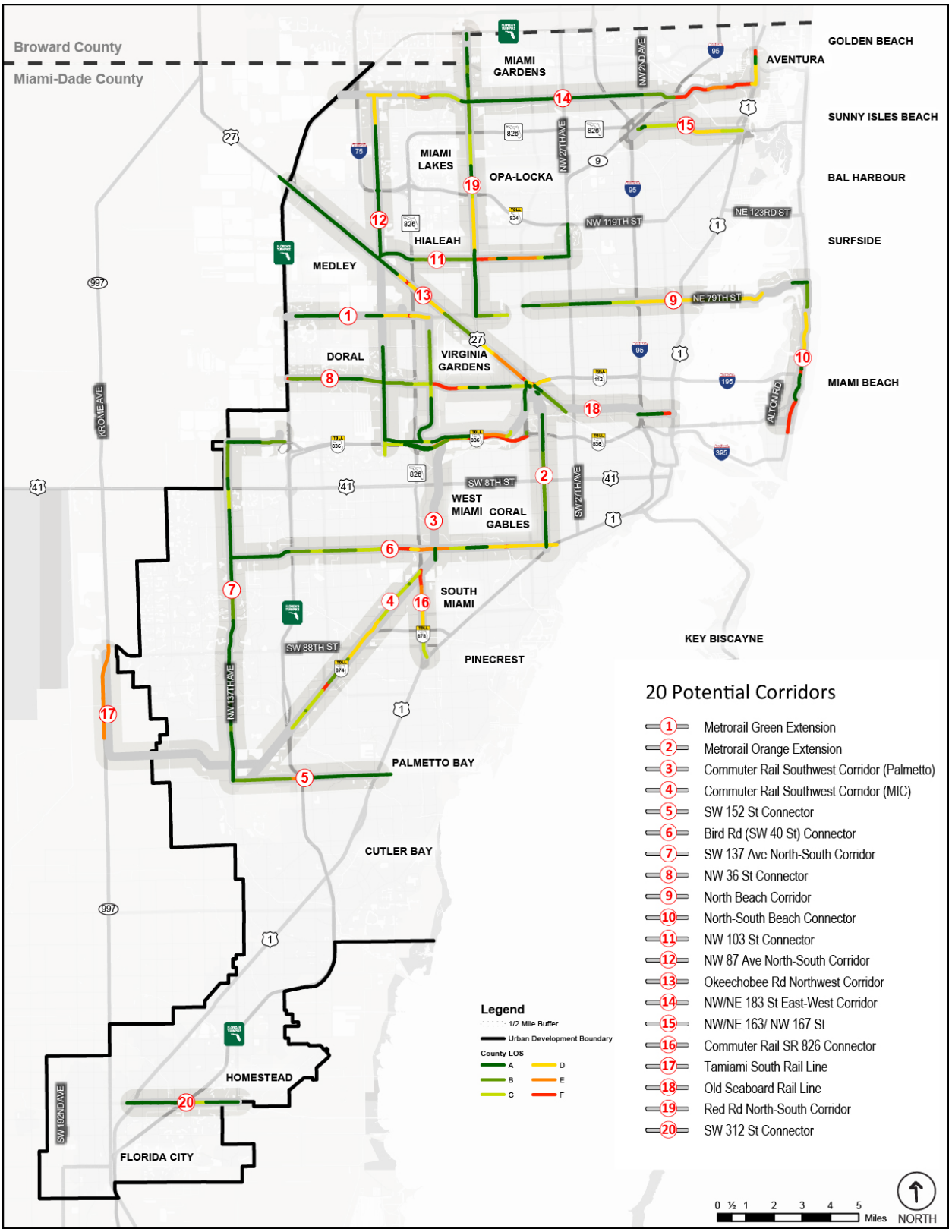

Figure A3: LOS of Potential Corridors

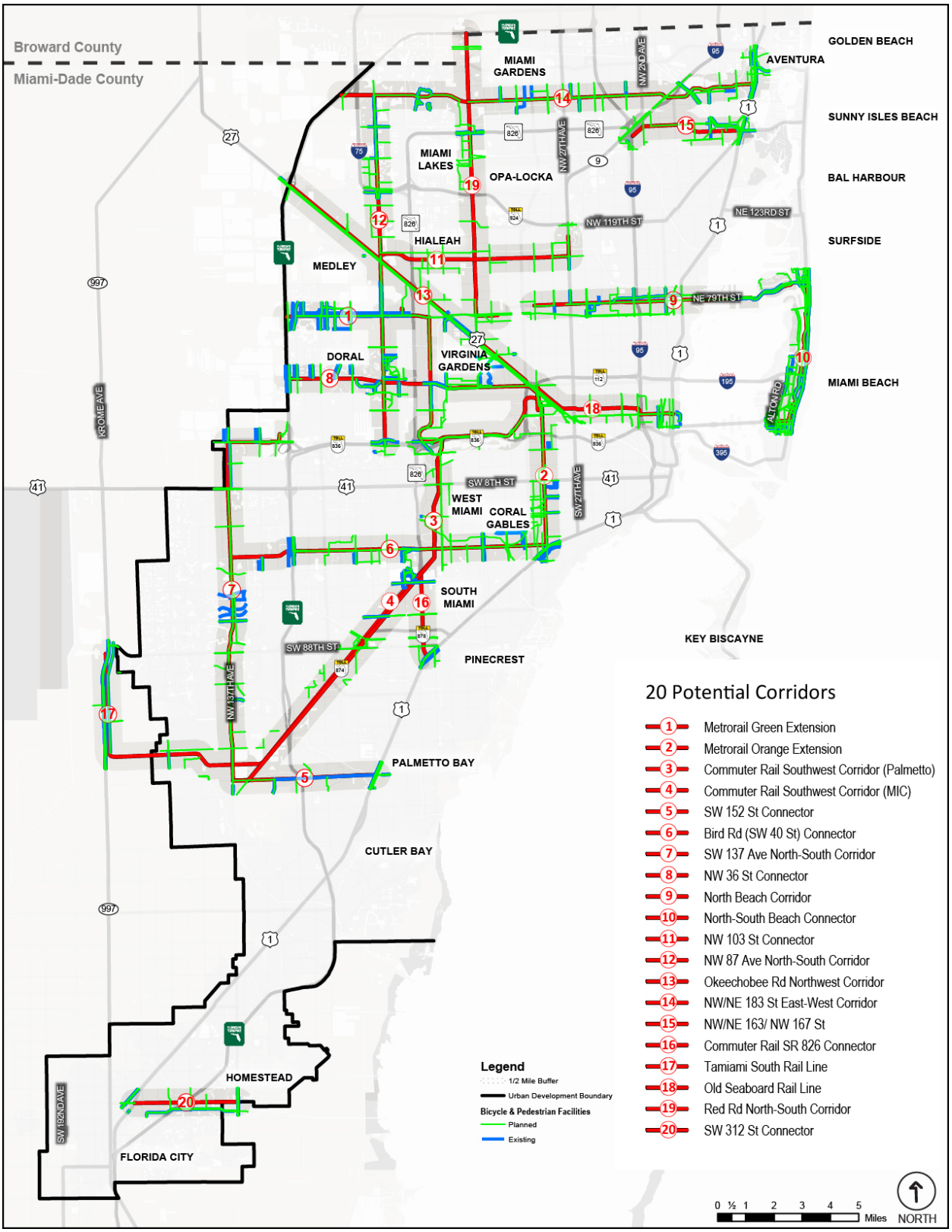

Figure A4: Existing and Planned Bike/Pedestrian Facilities

Appendix B

Supplementary Tables (Environmental Data)