OCT
2015

SOUTHEAST FLORIDA REGIONAL TRANSPORTATION PLAN 2040

Miami-Dade • Broward • Palm Beach

LETTER FROM THE CHAIRWOMAN

The Southeast Florida Region is the 4th most populous urbanized area in the United States. Our wide demographic diversity and immense geographic area provide a host of challenges and opportunities to promote a world class, integrated regional transportation system. Through our coordinated long range planning efforts, we have made great strides in identifying transportation facilities and services that will strengthen our region and the competitiveness of our nation as a whole at the global scale. This document builds on our previous efforts by laying out a 25-year plan for strategic regional transportation investments that will improve quality of life, maximize mobility options and promote a fiscally sustainable future.

Through our outreach efforts, we know that a key to moving people is having a broad range of options suited to our resident's range of mobility needs and economic circumstances. This plan will increase mobility options, including public transit, to provide our residents a wider variety of transportation options to meet their everyday needs. Projects like expanded commuter rail and express bus services make it easier for residents to cross jurisdictional boundaries without having to use their car. Extensive and expansive investments in bicycle and pedestrian facilities offer safe, green, and fit ways to travel for people of all ages and abilities. The substantial investments that we make in our freight terminals and logistics, rail, and highway networks will ensure optimum efficiency while mitigating potentially adverse impacts. Investments in a regional managed lane network further advance efficient movement of vehicles while reducing traffic congestion in a fiscally responsible manner. Together, these projects coalesce into a regional plan that will provide sustainable and reliable transport for our residents, businesses, visitors, and the national economy as well.

A robust economy leads to stronger communities. Services like community shuttles meet the mobility needs of neighborhoods and employers by making local connections to our regional transit systems seamless. Our commitment to a Complete Streets program further unites communities by creating more livable environments where automotive, transit and non-motorized transportation options can safely coexist. It's these types of environments that make our communities stronger, safer and more economically vibrant.

Your vision and ideas helped craft this plan. The projects identified in this plan create a mix of transportation investments to meet our commitment to you: move people, create jobs and strengthen communities. Thank you for helping shape the future of our region for generations to come.

MAYOR SUSAN HAYNIE
CHAIRWOMAN, SOUTHEAST FLORIDA TRANSPORTATION COUNCIL

ACKNOWLEDGMENTS*

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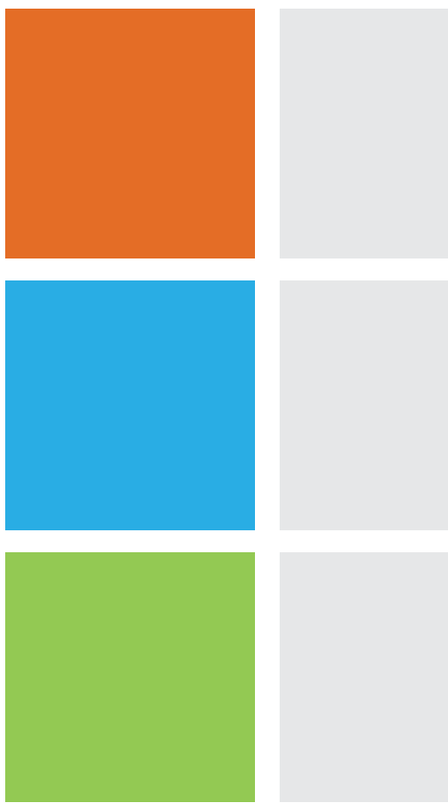
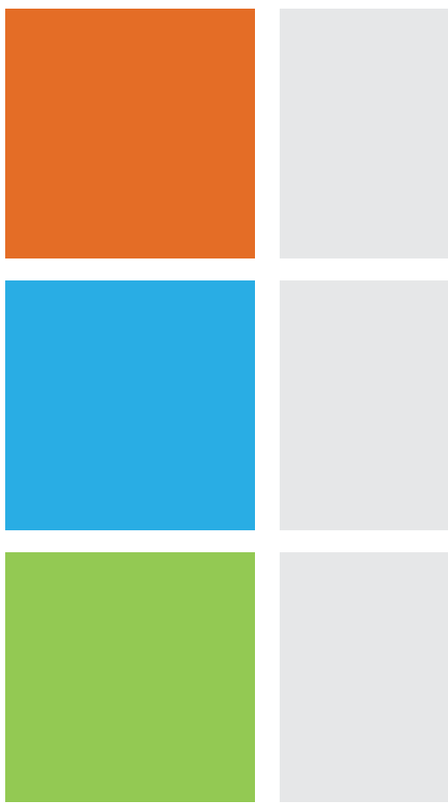


TABLES



SUPPORTING TECHNICAL MEMORANDUMS

REGIONAL NETWORK
WWW.SEFTC.ORG

REGIONAL PUBLIC INVOLVEMENT PLAN
WWW.SEFTC.ORG

REGIONAL PUBLIC INVOLVEMENT EVALUATION SUMMARY
WWW.SEFTC.ORG

REGIONAL GOALS, OBJECTIVES AND MEASURES OF EFFECTIVENESS
WWW.SEFTC.ORG

REGIONAL SUPPORTING DOCUMENT REVIEW
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REGIONAL NON-MOTORIZED PLAN
WWW.SEFTC.ORG

REGIONAL TRANSIT VISION
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REGIONAL PLANNING FOR OPERATIONS IN OUR REGION
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REGIONAL NEEDS AND COST FEASIBLE PLAN ASSESSMENTS
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REGIONAL REVENUE RESOURCES
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REGIONAL PRIORITIZATION
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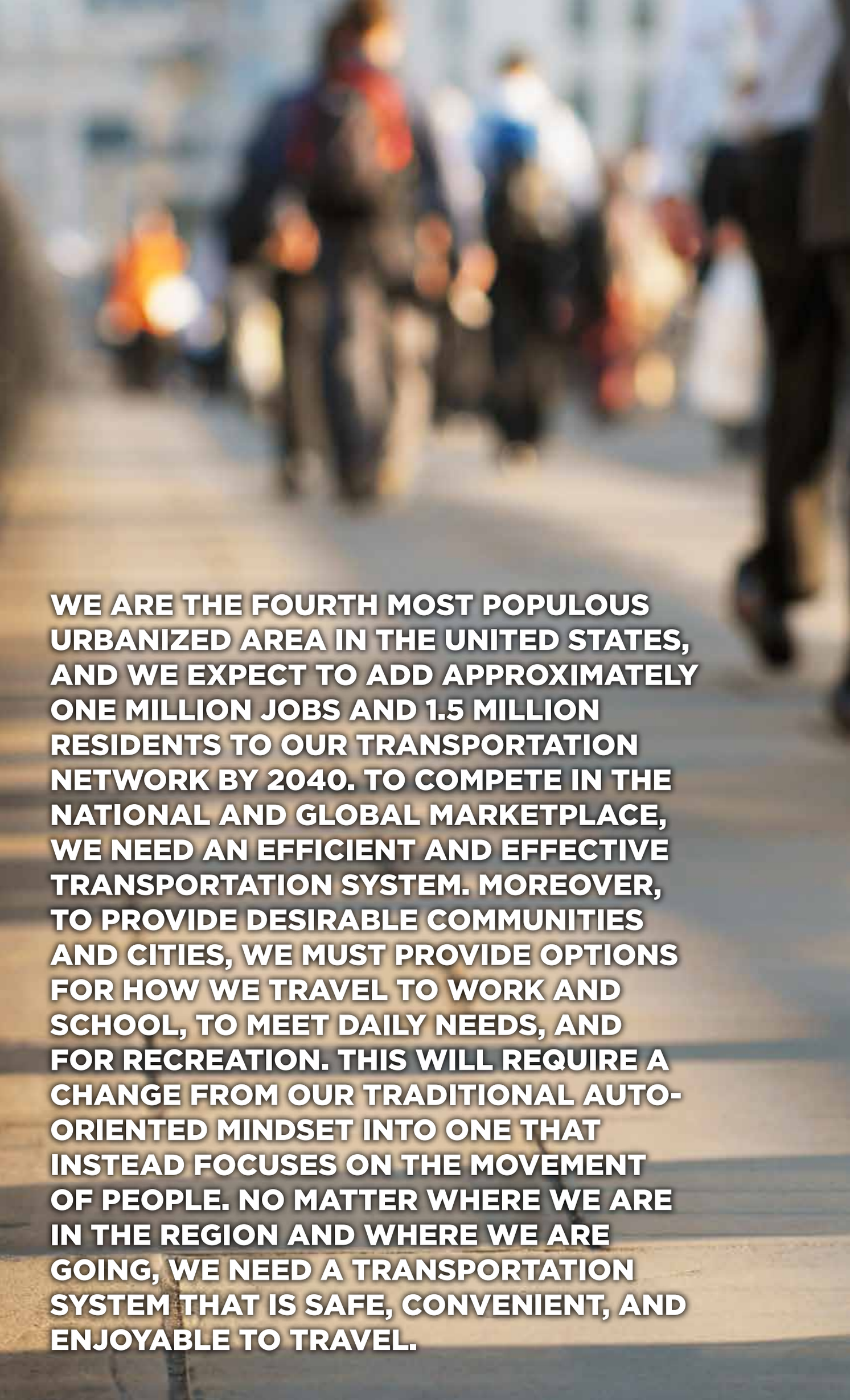
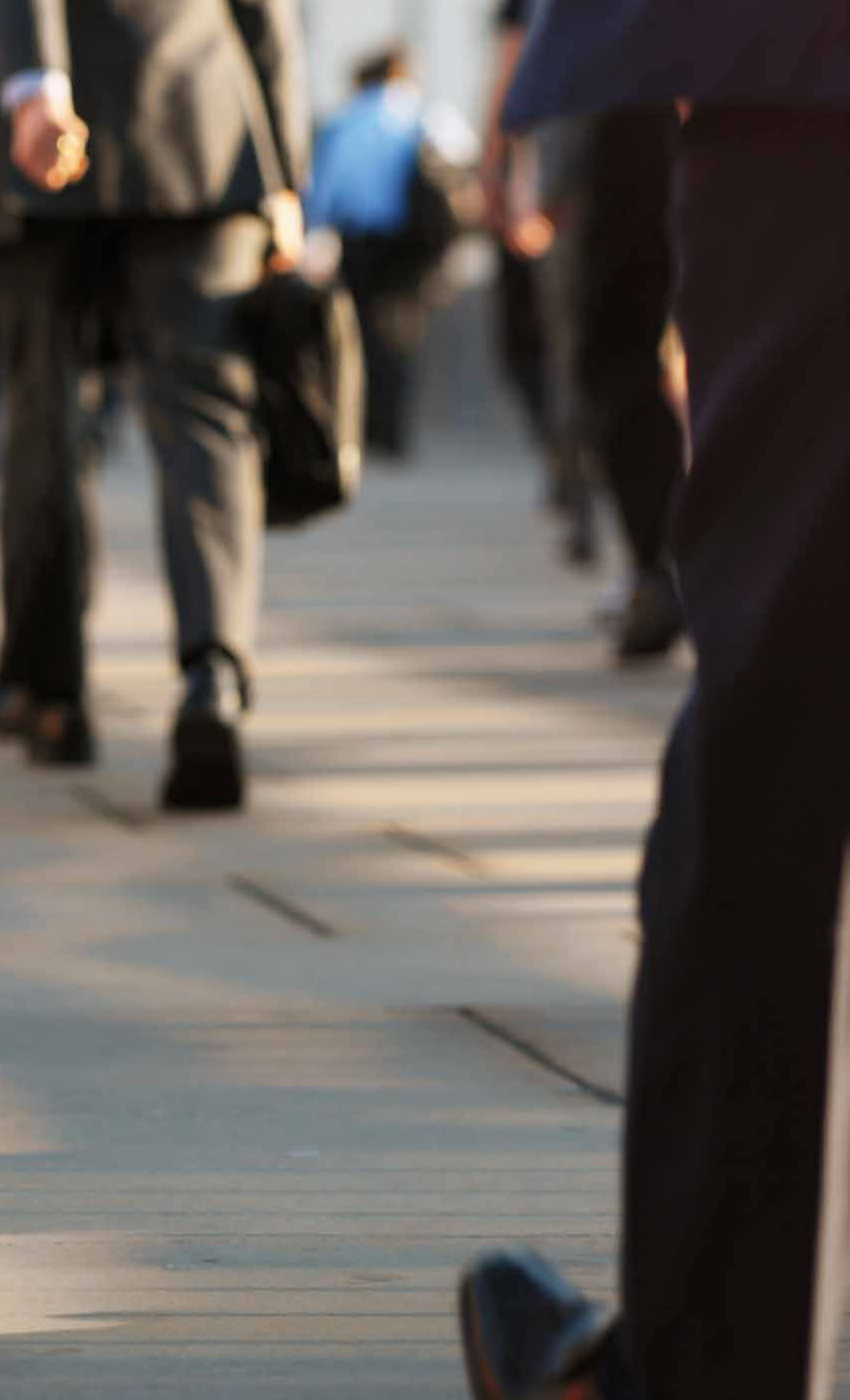
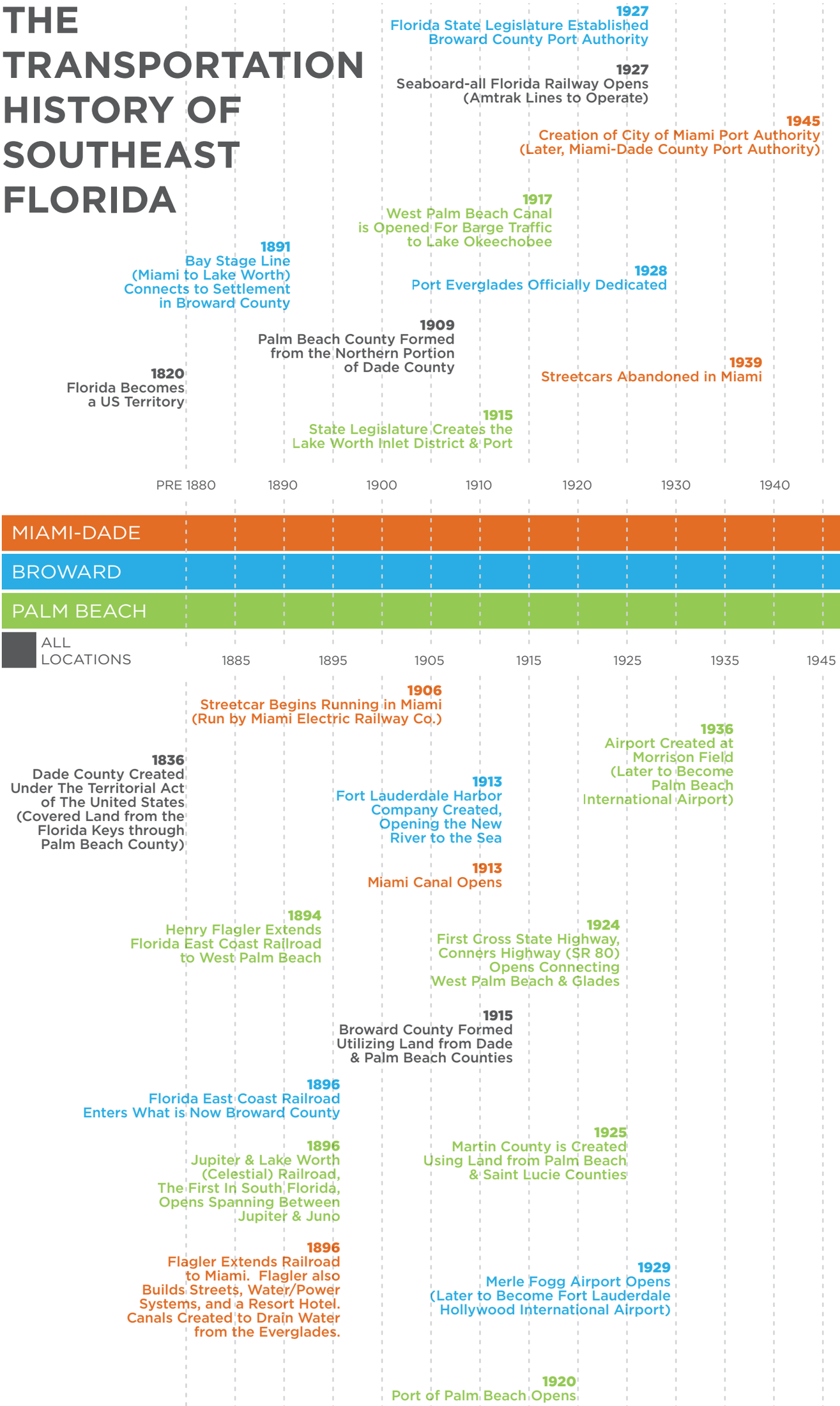
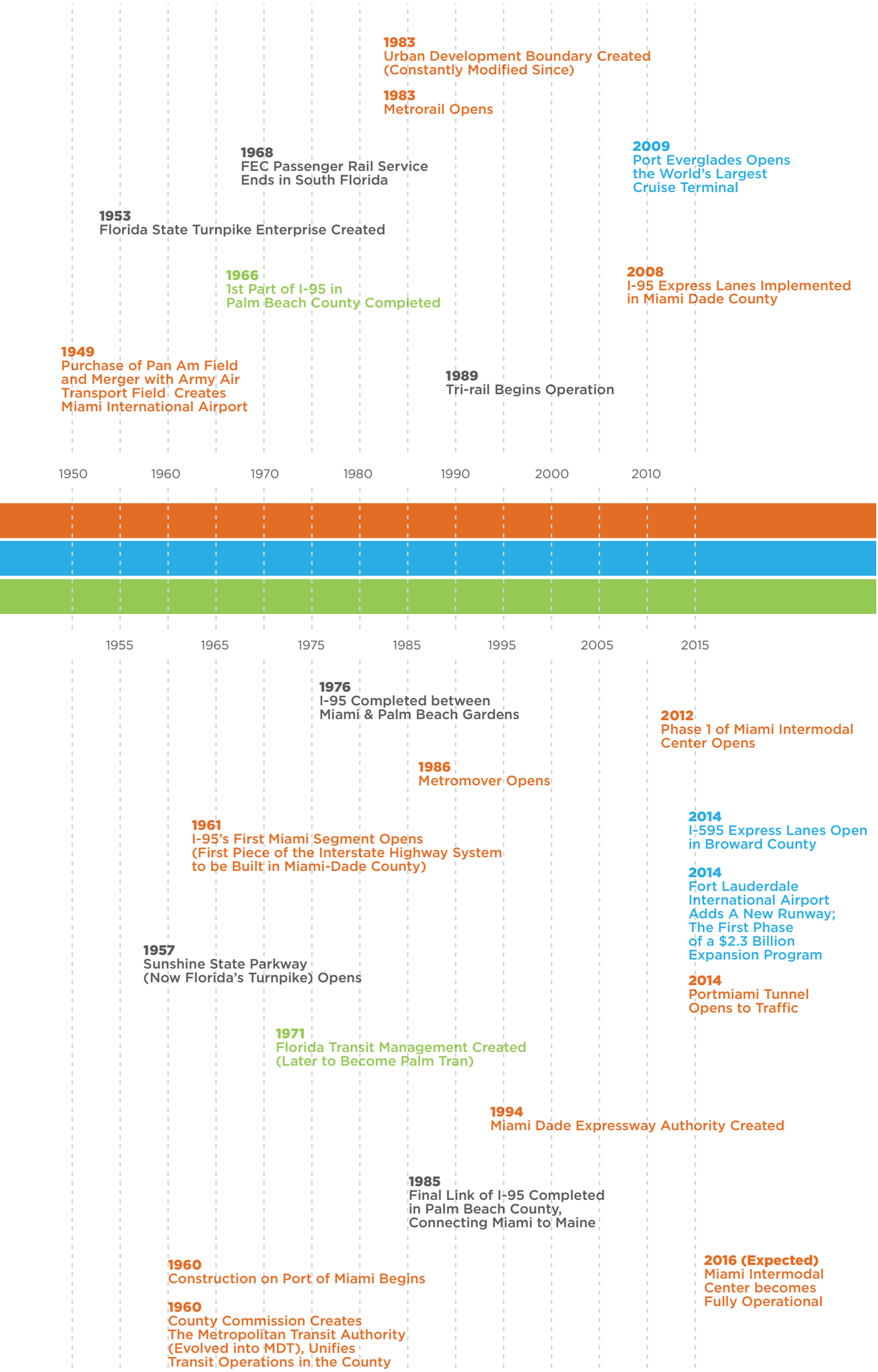


WE ARE THE FOURTH MOST POPULOUS URBANIZED AREA IN THE UNITED STATES, AND WE EXPECT TO ADD APPROXIMATELY ONE MILLION JOBS AND 1.5 MILLION RESIDENTS TO OUR TRANSPORTATION NETWORK BY 2040. TO COMPETE IN THE NATIONAL AND GLOBAL MARKETPLACE, WE NEED AN EFFICIENT AND EFFECTIVE TRANSPORTATION SYSTEM. MOREOVER, TO PROVIDE DESIRABLE COMMUNITIES AND CITIES, WE MUST PROVIDE OPTIONS FOR HOW WE TRAVEL TO WORK AND SCHOOL, TO MEET DAILY NEEDS, AND FOR RECREATION. THIS WILL REQUIRE A CHANGE FROM OUR TRADITIONAL AUTO-ORIENTED MINDSET INTO ONE THAT INSTEAD FOCUSES ON THE MOVEMENT OF PEOPLE. NO MATTER WHERE WE ARE IN THE REGION AND WHERE WE ARE GOING, WE NEED A TRANSPORTATION SYSTEM THAT IS SAFE, CONVENIENT, AND ENJOYABLE TO TRAVEL.

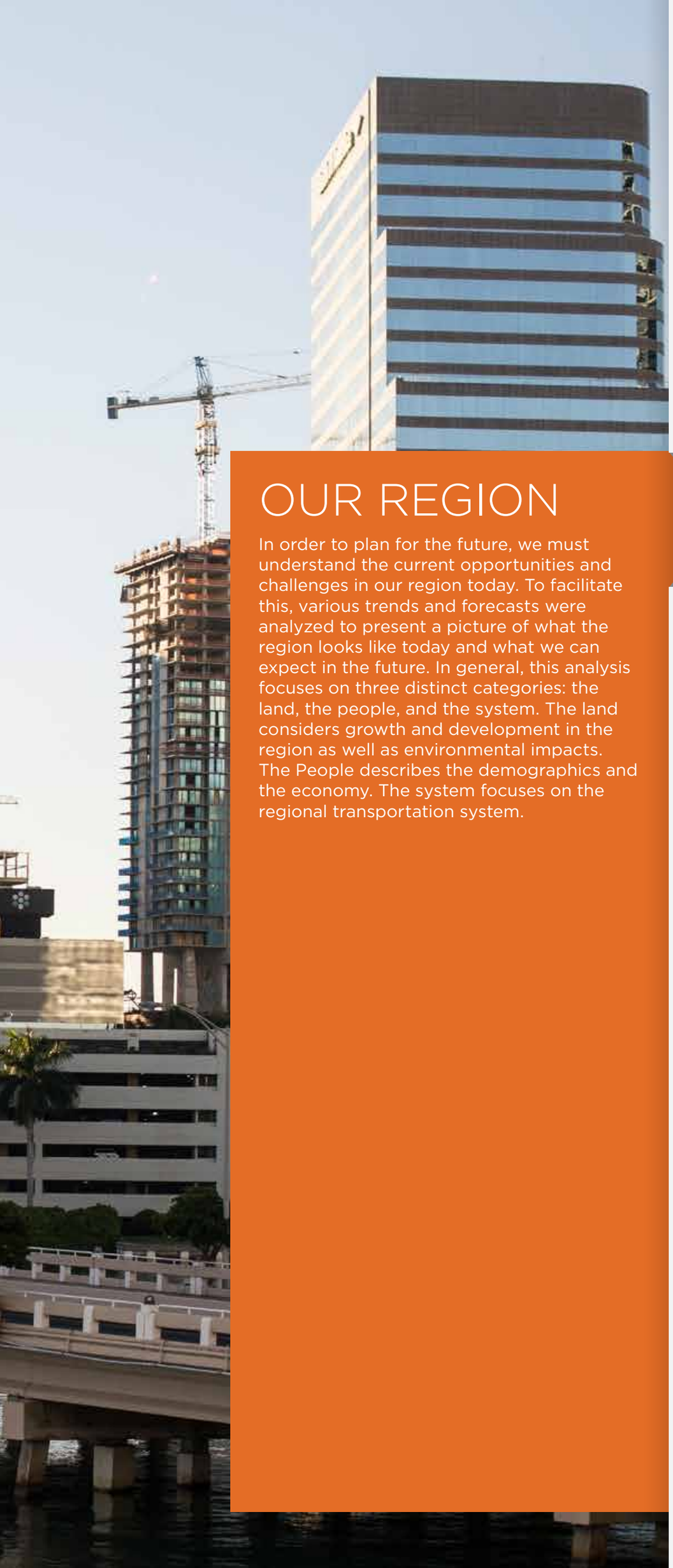


THE TRANSPORTATION HISTORY OF SOUTHEAST FLORIDA




1983
Urban Development Boundary Created
(Constantly Modified Since)
1983
Metrorail Opens
1968
FEC Passenger Rail Service
Ends in South Florida
2009
Port Everglades Opens
the World's Largest
Cruise Terminal
1953
Florida State Turnpike Enterprise Created
1966
1st Part of I-95 in
Palm Beach County Completed
2008
I-95 Express Lanes Implemented
in Miami Dade County
1949
Purchase of Pan Am Field
and Merger with Army Air
Transport Field Creates
Miami International Airport
1989
Tri-rail Begins Operation
1950
1960
1970
1980
1990
2000
2010
1955
1965
1975
1985
1995
2005
2015
1976
I-95 Completed between
Miami & Palm Beach Gardens
2012
Phase 1 of Miami Intermodal
Center Opens
1986
Metromover Opens
1961
I-95's First Miami Segment Opens
(First Piece of the Interstate Highway System
to be Built in Miami-Dade County)
2014
I-595 Express Lanes Open
in Broward County
2014
Fort Lauderdale
International Airport
Adds A New Runway;
The First Phase
of a $2.3 Billion
Expansion Program
1957
Sunshine State Parkway
(Now Florida's Turnpike) Opens
2014
Portmiami Tunnel
Opens to Traffic
1971
Florida Transit Management Created
(Later to Become Palm Tran)
1994
Miami Dade Expressway Authority Created
1985
Final Link of I-95 Completed
in Palm Beach County,
Connecting Miami to Maine
1960
Construction on Port of Miami Begins
2016 (Expected)
Miami Intermodal
Center becomes
Fully Operational
1960
County Commission Creates
The Metropolitan Transit Authority
(Evolved into MDT), Unifies
Transit Operations in the County

Credit: Miami DDA



SECTION

1

OUR REGION

In order to plan for the future, we must understand the current opportunities and challenges in our region today. To facilitate this, various trends and forecasts were analyzed to present a picture of what the region looks like today and what we can expect in the future. In general, this analysis focuses on three distinct categories: the land, the people, and the system. The land considers growth and development in the region as well as environmental impacts. The People describes the demographics and the economy. The system focuses on the regional transportation system.

POPULATION AND ECONOMY

Southeast Florida is the fourth most populous urbanized area in the country, with 5.6 million people.[1] The highest portion of that population is concentrated in Miami-Dade County, with population decreasing to the north. Additionally, because of its location, Southeast Florida has a unique advantage when it comes to imports and exports, and has been branded as the "Gateway to the Americas." Its environmental strengths have also made it a major tourism destination. A few trends become readily apparent when considering the population and economy today:

1 Miami-Dade, Broward, and Palm Beach 2040 LRTPs, 2015.

FIGURE 01
2010 REGIONAL POPULATION

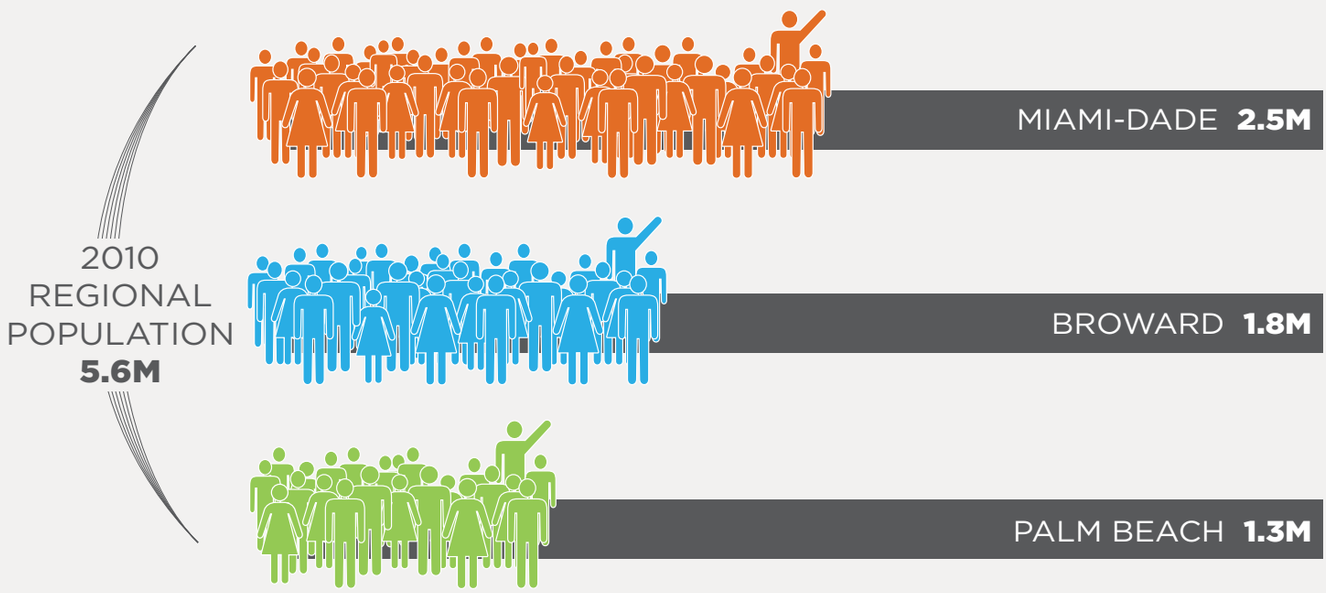
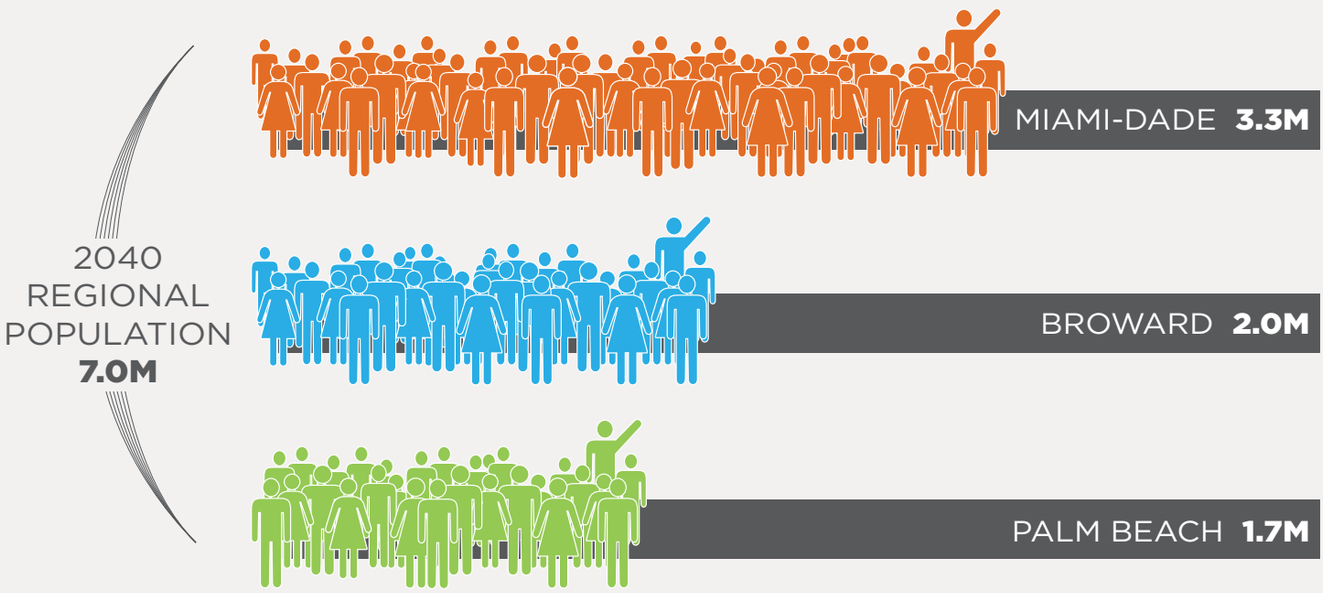


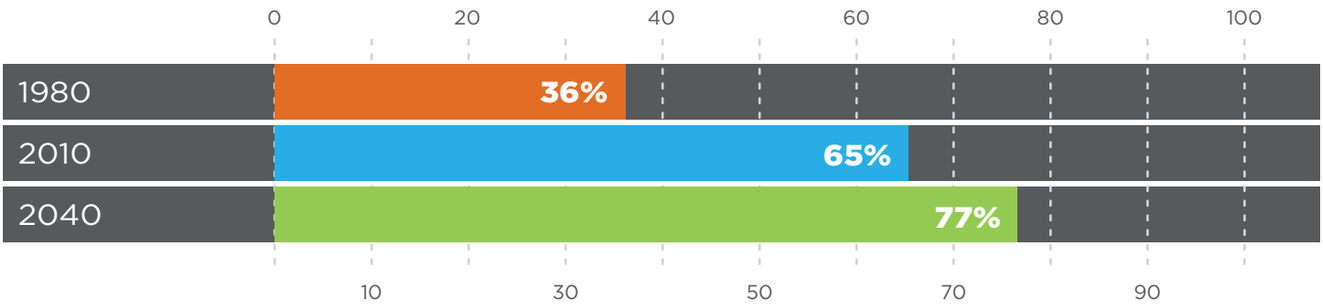
FIGURE 02
2040 REGIONAL POPULATION



DIVERSITY

We are one of the most diverse regions in the country. Between 1980 and 2010, the racial and ethnic minority populations in the region increased from 36 percent to 65 percent, and is expected to increase to 77 percent by 2040.[2] Racial and ethnic minority populations are defined as: Asian American; Black or African American; Hispanic or Latino; Native Hawaiian and Other Pacific Islander; American Indian and Alaska Native; and Multiracial.

FIGURE 03
SOUTHEAST FLORIDA RACIAL AND ETHNIC MINORITY POPULATIONS OVER TIME



Furthermore, approximately 2.2 million of our residents, or 40 percent of the population, were born outside of the United States.[3] This diversity is one of the things that makes our region unique. It has enabled us to become a cultural hub, but has also presented unique planning challenges. For example, 22% of our residents do not speak fluent English,[4] and we have one of the highest percentages (31%) of young adults living at home in the country.[4] Regarding education, while 20% of our residents have a Bachelor's degree or higher, 12% do not have a high school diploma.[5] Because of this, we must take great care when educating our community and performing outreach.

2 National Equity Atlas, 2015.

3 Carras Community Investment: Seven50 Regional Analysis of Impediments to Fair Housing, 2012.

4 El Nasser, Haya (USA Today): Adult Kids Living at Home on the Rise Across the Board, 2012.

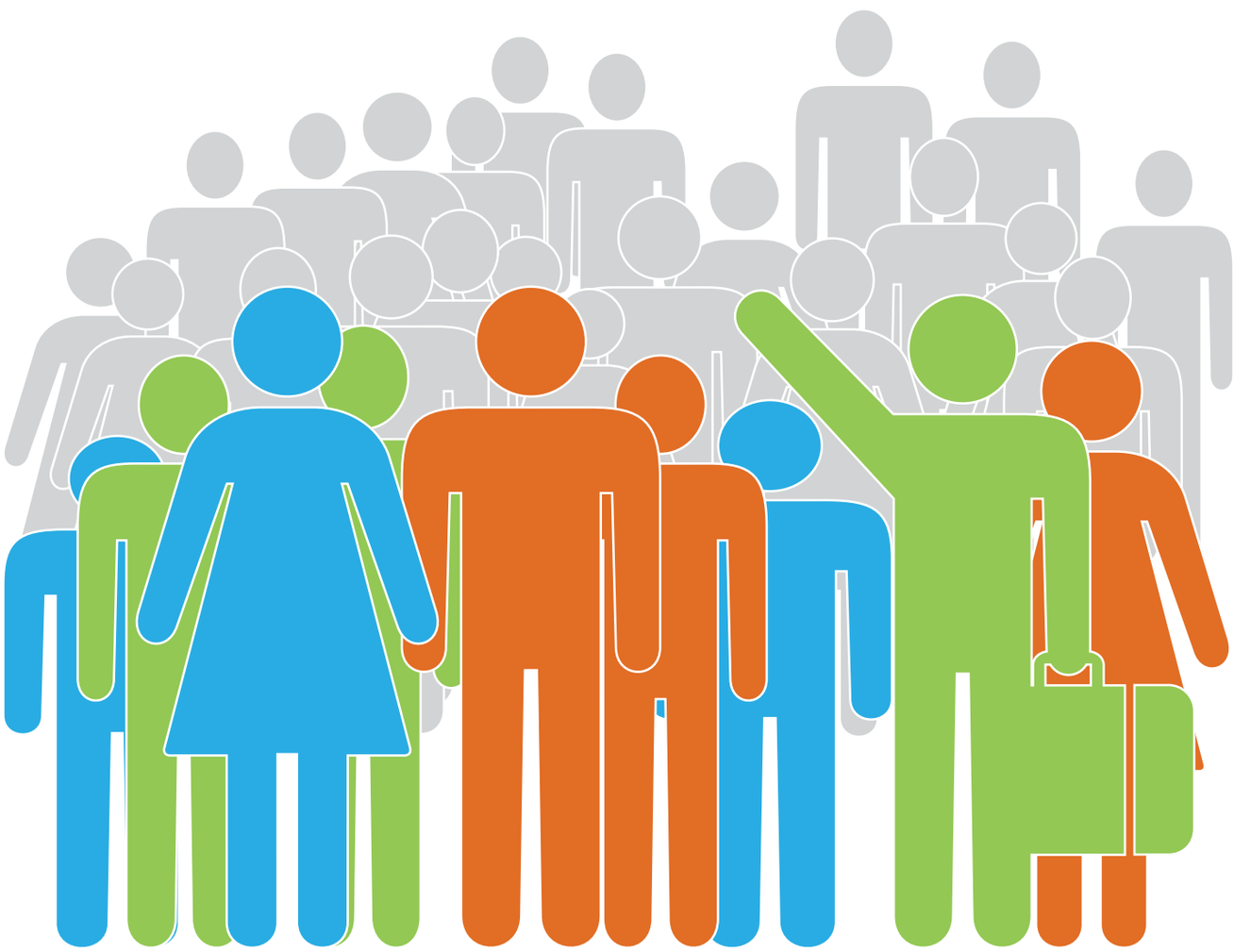
5 Carras Community Investment; Social Equity Analysis for the Seven Counties of Southeast Florida, 2012.

FIGURE 04
RACIAL AND ETHNIC POPULATIONS BY COUNTY

	MIAMI-DADE				BROWARD				PALM BEACH			
	2010	2020	2030	2040	2010	2020	2030	2040	2010	2020	2030	2040
WHITE	0.4M	0.3M	0.3M	0.2M	0.8M	0.7M	0.7M	0.6M	0.8M	0.8M	0.8M	0.9M
BLACK	0.4M	0.5M	0.5M	0.5M	0.5M	0.5M	0.6M	0.6M	0.2M	0.3M	0.3M	0.4M
HISPANIC	1.6M	1.9M	2.3M	2.5M	0.4M	0.5M	0.6M	0.7M	0.3M	0.3M	0.4M	0.4M
OTHER	0.0M	0.0M	0.0M	0.1M	0.1M	0.1M	0.1M	0.1M	0.0M	0.0M	0.1M	0.1M
TOTAL	**2.5M**	**2.8M**	**3.1M**	**3.3M**	**1.7M**	**1.9M**	**1.9M**	**2.0M**	**1.3M**	**1.5M**	**1.6M**	**1.7M**

M = Millions

Source: Florida Demographic Estimating Conference, February 2014 and the University of Florida, Bureau of Economic and Business Research, Florida Population Studies, Bulletin 169, June 2014



AGE

Based on US Census Data, in 30 years, the largest segments of our population will be over 70 years old. Seniors are dispersed throughout the region, although pockets of concentration include the beaches, southern Palm Beach County, and in retirement communities dispersed throughout the region. These areas will continue to see increases in the aging population from current local residents as well as from an influx of aging population from less temperate climates. Many cities in the region are also actively trying to attract younger generations; particularly Millennials (those born between the early 1980s and the early 2000s). Millennials tend to prefer mixed use and walkable environments and have a pronounced reduced reliance on the use of the automobile. There are approximately 1.6 million Millennials in the region currently, however that population shrank by 2,639 between 2010 and 2012.[6] A reason for this is that the region is not meeting the generation's desires for multimodal travel and compact urban development. To maintain them or bring them back, we should look at multimodal transportation operations and to both local and regional destinations.

ARTIGRAS 2015, ABACOA

Credit: Palm Beach Post

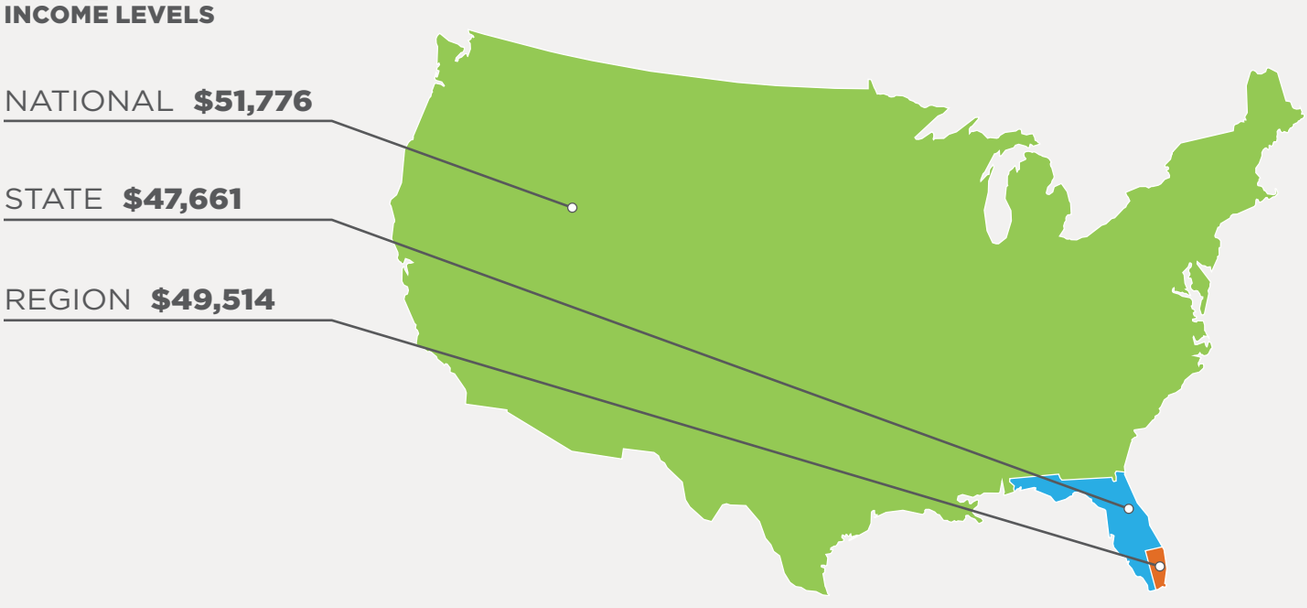
6 Seven50, 2012.

INCOME

Income levels vary throughout the region. The median household income level for the region is $49,514, and income levels rise as we move north. This is lower than the national average of $51,776 but higher than the average in Florida ($47,661).[7] The highest income levels are located along the coast and the western edge of the urban development boundaries. Poverty is a concern throughout the region, with all major cities having clusters where the number of residents living in poverty exceed twenty percent. Approximately 25.8 percent of households across the regions are considered low income (less than $25,000/year) households. Residents in poverty may not have access to a vehicle and depend on transit or other means to move around the region, and therefore it is important to consider them when planning for future transportation needs.

7 US Census Bureau 2006-2010 5 Year Estimates.

FIGURE 05
INCOME LEVELS



CURRENT AND EMERGING INDUSTRIES

The region currently supports a labor force that accounts for 64 percent of the population or 3.3 million people. This is consistent with the national average. Specifically, Broward County has 67 percent of its residents in the labor force compared with Miami-Dade and Palm Beach counties at 63 and 60 percent respectively.

Based on 2013 Census data, the largest industries by employment in the Miami-Fort Lauderdale-West Palm Beach metropolitan statistical area (MSA) are retail trade, health care, and accommodation and food services. The retail trade industry, in addition to our residents, is supported by large numbers of foreigners who travel here to shop, taking advantages of cheaper prices and low sales tax. The health care industry is booming largely due to our aging population. The accommodation and food services industry is supported by the hotels, restaurants, and other tourism related businesses that the region is known for.

The real estate industry makes up a significantly larger part of our economy than in the rest of the United States, which is why we have traditionally been hit harder by real estate booms and busts. Other industries that make up a larger share of our economy include trade, transportation and warehousing, education, and the hospitality industry. Many of the jobs that fall within these industries pay lower wages, especially considering the transportation and hospitality industries, which helps to explain our lower than average median household income levels. Even so, with our burgeoning health care industry and focus on education, we are positioning our region well for an exciting future.

FIGURE 06
TOP 3 INDUSTRIES IN SOUTHEAST FLORIDA

UNIVERSITY OF MIAMI HEALTH CAMPUS

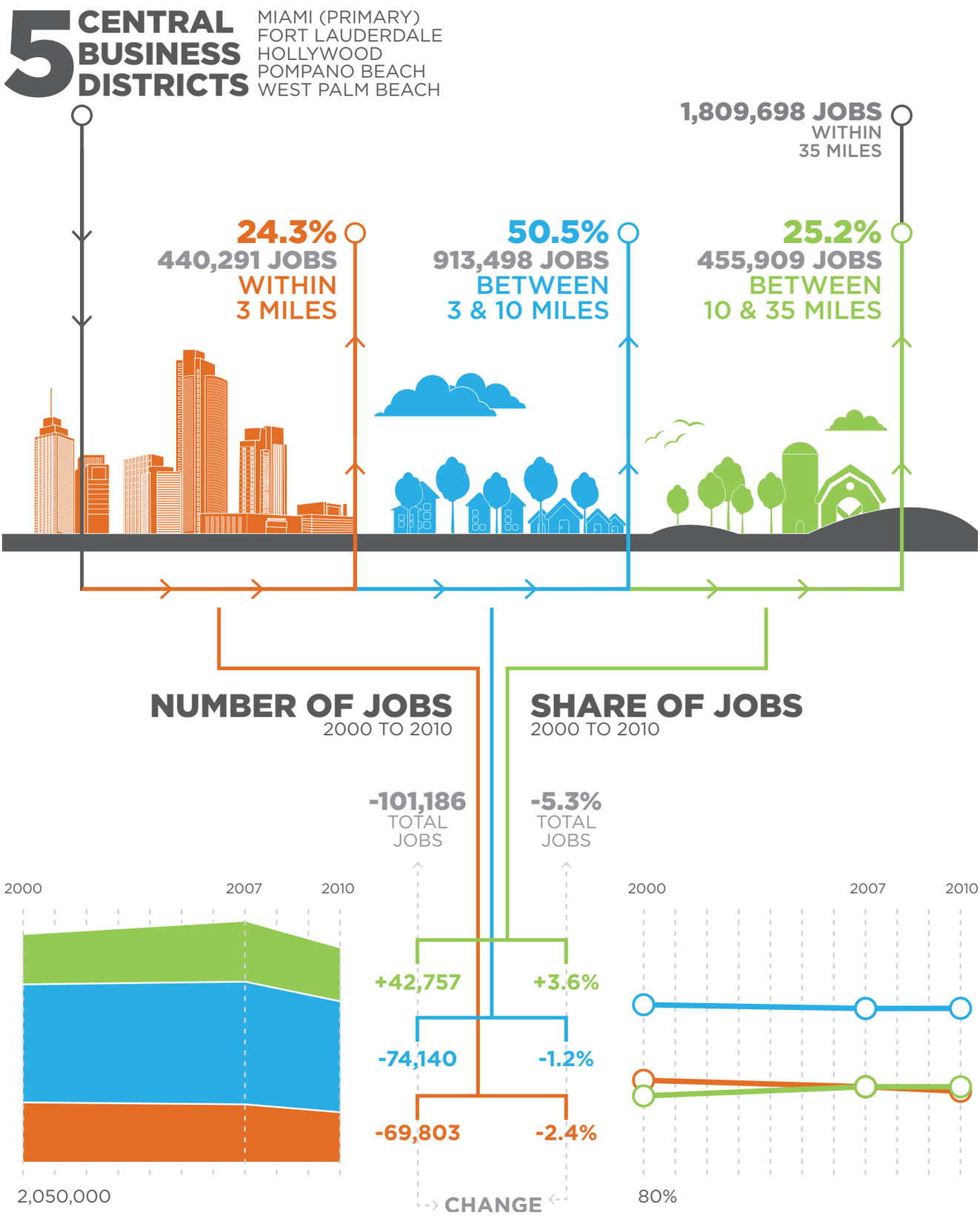
Credit: University of Miami

JOB GROWTH

A study by Brookings[8] found that between 2000 and 2010, there was a five percent decrease in total jobs in the region. Additionally, the trend in job growth has not been focused in the region's downtowns. Rather, growth is occurring in areas between 10 and 35 miles from the downtowns. Twenty-nine percent of commuters were found to drive 10 to 24 miles to work. This trend signifies job sprawl that is symptomatic of the development pattern in Southeast Florida, resulting in longer commute times and more traffic congestion.

8 Brookings, Job Sprawl Stalls: The Great Recession and Metropolitan Employment Location, April 2013.

FIGURE 07
JOB SPRAWL STALLS: THE GREAT RECESSION AND METROPOLITAN EMPLOYMENT LOCATION MIAMI-FORT LAUDERDALE-POMPANO BEACH, FL METROPOLITAN AREA PROFILE



Source: Metropolitan Policy Program at Brookings, 2011

EDUCATION

Southeast Florida is home to some of the nation's largest and most renowned institutions of higher learning. These establishments are not concentrated in one single location but rather address the needs of the student body with various nodes throughout the region. Some of the region's major educational institutions include the University of Miami, Florida International University, Miami-Dade College, Nova Southeastern University, Broward College, Florida Atlantic University, and Palm Beach State College. These institutions and others attract hundreds of thousands of students from around the world each year, and it is increasingly important that we retain these students after graduation to support our economy.

FLORIDA INTERNATIONAL UNIVERSITY CAMPUS

Credit: Florida International University

PORTS

Southeast Florida is a national leader in trade and tourism, and home to three major international airports (Miami, Fort Lauderdale – Hollywood, and Palm Beach) and seaports (PortMiami, Port Everglades and Port of Palm Beach).

All are activity nodes that serve as significant economic engines as well as major centers for the region. Southeast Florida's location makes it a prime destination for tourism, conventions, and other travel. On average, more than 65 million passengers arrive via Southeast Florida's main airports. With close to 87.3 million visitors in 2011 (a record number), Florida is the top travel destination in the world. Additionally, air and sea cargo trade have been consistently growing and Southeast Florida is the 6th largest cargo region in the United States.[9] Close to 40 percent of all US exports to Latin and South America pass through Southeast Florida, making its freight routes and ports crucial elements of its transportation system. This need will continue to grow with the widening of the Panama Canal and the introduction of the mega ships both on the cargo and cruise passenger sides.

9 MDC Beach Council, Greater Ft. Lauderdale Alliance, and Palm Beach County Business Development, 2012.

FIGURE 08
TRADE AND TOURISM IN THE SEVEN COUNTY REGION

2010 TO 2040 POPULATION AND EMPLOYMENT CHANGE

Figure 09 displays the projected population and employment change in the region between 2010 and 2040. As noted before, the growth of both population and employment is likely to be dispersed throughout the region. Population is projected to grow the most in the southern portion of Miami-Dade County, near Homestead, and in and around the City of Miami. The greatest employment growth is also projected to occur in MIami-Dade County, with the highest concentrations in Miami and Miami Beach. Other concentrations of population and employment can be seen in downtowns throughout the region and along major corridors, suggesting some areas where higher densities can be achieved. With the proper planning, these nodes may lend themselves to becoming new or more significant transit hubs in the future.

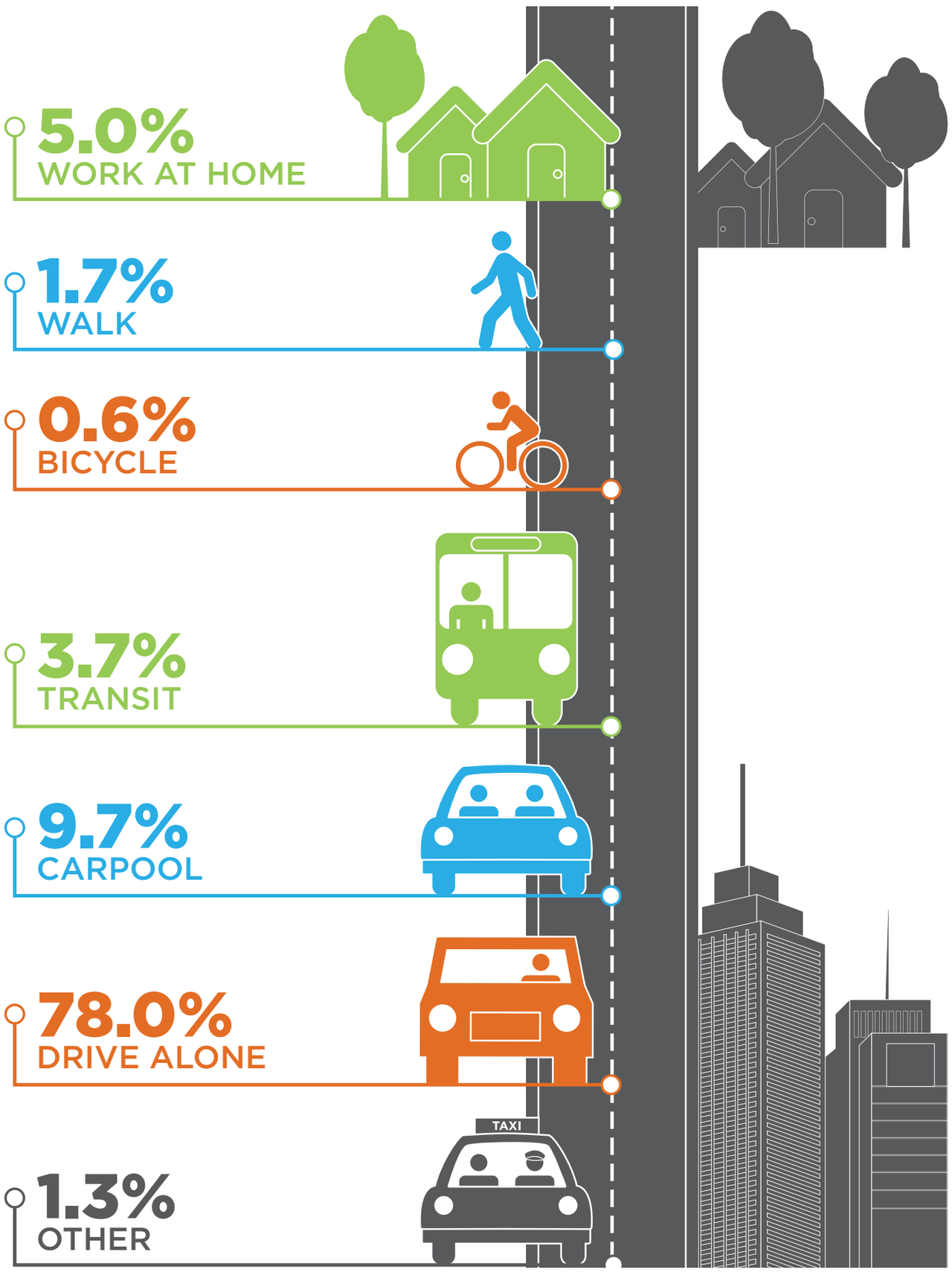
FIGURE 09
2010 - 2040 POPULATION AND EMPLOYMENT CHANGE

TRANSPORTATION

The existing transportation system in Southeast Florida is generally auto-oriented and is reaching capacity. Longer vehicular travel times are no longer limited to the morning and afternoon rush hours but extend throughout the day. However, we are running out of room to build more roads. Therefore, the future of our region depends on managing congestion and encouraging and developing infrastructure of other transportation modes. Furthermore, while most of the households in the region have access to a car, approximately eight percent region wide do not. The number of residents commuting via walking, bicycling, and other modes is increasing.[10] These trends are expected to continue nationwide, and we must develop and maintain the infrastructure needed to support all modes of transportation in order to remain competitive.

10 Carras Community Investment; Social Equity Analysis for the Seven Counties of Southeast Florida, 2012.

FIGURE 10
HOW WE GET TO WORK



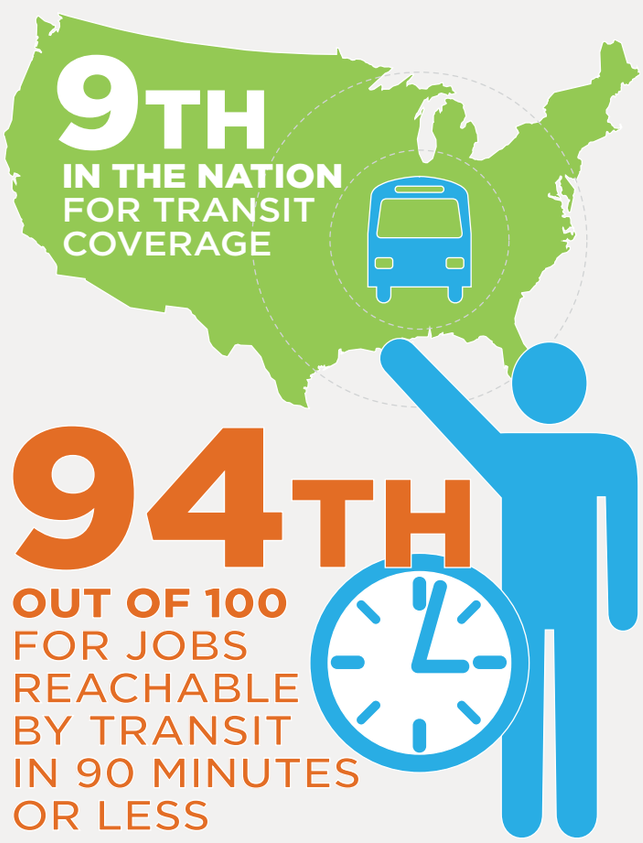
BY FOOT, BY BIKE

The Southeast Florida region has the opportunity to create a safe, world class system for both pedestrians and cyclists. Over time, thriving, multimodal areas have developed throughout the region and Complete Streets guidelines are being adopted at city and county levels. Bike sharing programs are also becoming popular and have been implemented in Miami Beach, Miami, and Broward County. However, there has not been a vision for this development in the past, and planning and development has been piecemeal. Additionally, the disjointed land use patterns and auto-oriented development have led to Transportation for America rating the Miami-Fort Lauderdale-West Palm Beach MSA as the fourth most dangerous metropolitan area for pedestrians in the United States for several years in a row due to high numbers of pedestrian deaths per capita. It is the mission of the region to change this trend and provide a safe, comfortable, and accessible transportation system for all modes.

Source: Transportation for America, 2014

BY TRANSIT

There are a number of transit agencies providing service in the region. These include Miami-Dade Transit, Broward County Transit, PalmTran, and the South Florida Regional Transportation Authority. Regional trips that cross county boundaries are facilitated by Tri-Rail along the CSX rail line which generally parallels I-95, but for the remainder of the system, these trips generally require bus transfers at the county lines. While the agencies operate separately, there is a need for regional transportation due to the large numbers of inter-county trips. Both bus and rail transit are available, and planning is currently underway for a new, inter-city commuter rail system that will provide connectivity both within and outside of tri-county area. The regional transit system is supported by local systems such as local bus, local shuttles, water taxis, and water buses. The Southeast Florida region ranks 9th in the nation for transit coverage.[11] While this is evidence that in some communities, the existing transit service does provide coverage to the population, there is a need for a more strategic network. The region is one of the worst when it comes to jobs reachable by transit in 90 minutes or less, ranking 94th out of 100 areas. Looking to the future, it will be important to develop a truly regional system that connects residents to destinations, attracting both choice and dependent riders.



Source: Metropolitan Policy Program at Brookings, 2011

11 Brookings; Missed Opportunity: Transit and Jobs in Metropolitan America, 2011.

BY CAR OR TRUCK

As stated before, much of the region has developed in an auto-centric pattern. This development matches what can be seen in much of the nation. As such, car ownership is high, with more than 96 percent of workers having access to a private vehicle. This is just over the national average of between 95 and 96 percent.[12] Even so, we still have some residents without access to a car as well as a large number of tourists without vehicles. One way we are beginning to address this is the implementation of car sharing. It is currently available in Miami, but likely will expand across the region as demand increases. Southeast Florida is one of the most congested metropolitan areas in the country.[13] In the past, we have focused on adding capacity to correct this issue. However, we have maxed out or roadways in many places, and we are now focusing on other ways to fix this. These include the creation of a regional network of express lanes and the implementation of a number of system management techniques. We will need to plan at a regional level in order to be strategic about where and how we make future improvements to support the system.

12 US Census Bureau 2007 - 2011 5 Year Estimates.

13 Inrix; Urban Mobility Scorecard, 2014.

CARSHARING IN MIAMI

Credit: Brickell Reporter

Credit: BizJournals

BY WATER

Travel by water is a key component of our system. As one of the largest cargo and cruise destinations in the world, our ports continue to grow and require more infrastructure. PortMiami is set to undergo deep dredging to allow for the largest ships in the world to enter the port, and is scheduled to be completed in 2016.[14] At Port Everglades, a $53 million Intermodal Container Transfer Facility was recently completed to directly transfer containers between ship and rail. It is also undergoing turning notch expansion and a deepening of the channels and turning basin to accommodate larger ships.[15] The Port of Palm Beach is working to get Congressional approval for a dredging project to the Lake Worth inlet to allow for increases in size and cargo at the port.[16]

14 PortMiami, 2012.

15 Port Everglades, 2014.

16 Port of Palm Beach, 2014.

CARGO CARRIER AND CRUISE SHIP IN SOUTHEAST FLORIDA

Credit: Broward MPO

BY AIR

There are three international airports in Southeast Florida: Miami International Airport (MIA), Fort Lauderdale-Hollywood International Airport (FLL), and Palm Beach International Airport (PBIA). In addition, there are a number of other smaller airports. All three major airports have had grand developments over the last several years. MIA completed a new terminal in 2014, which included the construction of two terminals and an automated people mover. The Miami Intermodal Center, Miami's "grand central station" connecting MIA to the rest of Miami through transit and cars was also completed as part of the improvement program.[17] FLL completed the construction of a $719 million runway in 2014; the first phase of a $2.3 billion expansion project.[18] Finally, PBIA underwent a $7.5 million renovation in 2010, adding many new features.

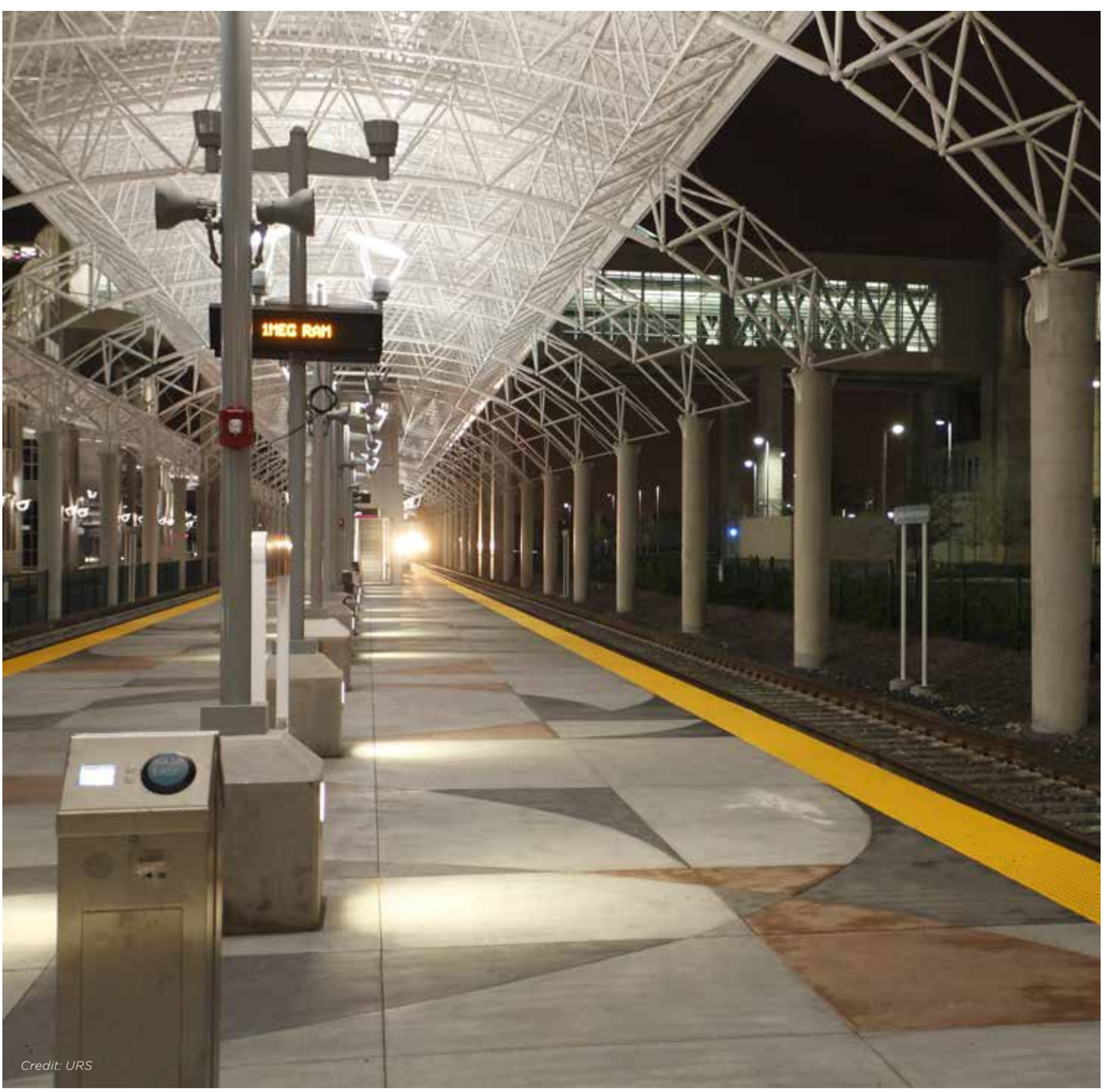
17 Miami International Airport, 2015.

18 Varn, Kathryn & Sampson, Hannah (Miami Herald); Fort Lauderdale-Hollywood International Airport's New Runway Now Open, 2014.

FORT LAUDERDALE-HOLLYWOOD INTERNATIOANAL AIRPORT

Credit: Broward MPO

MIAMI INTERMODAL CENTER



Credit: URS

LAND USES

The developable portion of the Southeast Florida Region is made up of a swath of land situated between the Atlantic Ocean and the Florida Everglades. While initially spurred by the location of railroad hubs, the development in Southeast Florida generally occurred during the period of the automobile. As such, much of the region has developed in a low-density, single use manner slowly expanding in a leap-frog pattern to the west over time. This has created a number of problems, including the rapid consumption of a limited amount of land towards the Everglades and a dependence on the automobile for travel. In turn, the high usage of the private automobile has resulted in heavy congestion throughout the region along automobile oriented corridors, as commuters are forced to drive long distances to reach a destination or to make multiple short trips to reach a number of destinations. It also increases the cost of living due to increased costs for fuel and car ownership.

Having recognized the unsustainability of this development pattern, the Region is moving forward with plans to create a different future. Seven50, a blueprint for the future of the greater seven county region, was coordinated by the South Florida and Treasure Coast Regional Planning Councils (RPCs). It has proposed a plan that integrates transportation and land use to create a more cohesive system. The three MPOs in the Southeast Florida region have taken this approach to heart, and have begun to call for development to be centered in multimodal transportation hubs. Redevelopment is beginning to occur at transit-supportive intensities in response to the desires of the population and the market, and local municipalities are adopting policies to continue this trend. For example, Miami's metrorail system, traditionally thought of as under performing, has recently seen ridership increases as higher density redevelopment has occurred around the stations. As the planning continues for the Tri-Rail Coastal Link, visions of transit oriented development and associated economic prosperity are also being created throughout the region. Furthermore, future population and employment projections predict higher growth in the already developed areas along the coast, paving the way for increased densities and exciting places.

GROWTH OVER TIME

OAKLAND PARK BOULEVARD AND FEDERAL HIGHWAY (FORT LAUDERDALE)

Credit: Broward County Historic Commission

1953

Credit: Google Earth

TODAY

DOWNTOWN MIAMI, (LEFT) 1960, (RIGHT) TODAY

MIAMI BEACH, (LEFT) 1930, (RIGHT) TODAY

CLEMATIS STREET (WEST PALM BEACH), (LEFT) 1916, (RIGHT) TODAY

ENVIRONMENT AND SUSTAINABILITY

The Southeast Florida Region is home to a mix of environmental and natural resources that is not found anywhere else in the world. Perhaps the most well-known of these resources are the Florida Everglades, which provide a habitat to a number of species including rare and endangered species like the manatee, American crocodile, and the Florida Panther. Southeast Florida's beaches are also recognized worldwide, and present another major draw for tourists and residents alike. Additionally, they provide a valuable natural habitat for sea turtles and shore birds. Other environmental resources include Biscayne Bay, the Lake Worth Lagoon, and Lake Okeechobee. As we continue to develop, it is important that we protect these important resources and that we ensure that they are accessible for future generations to enjoy.

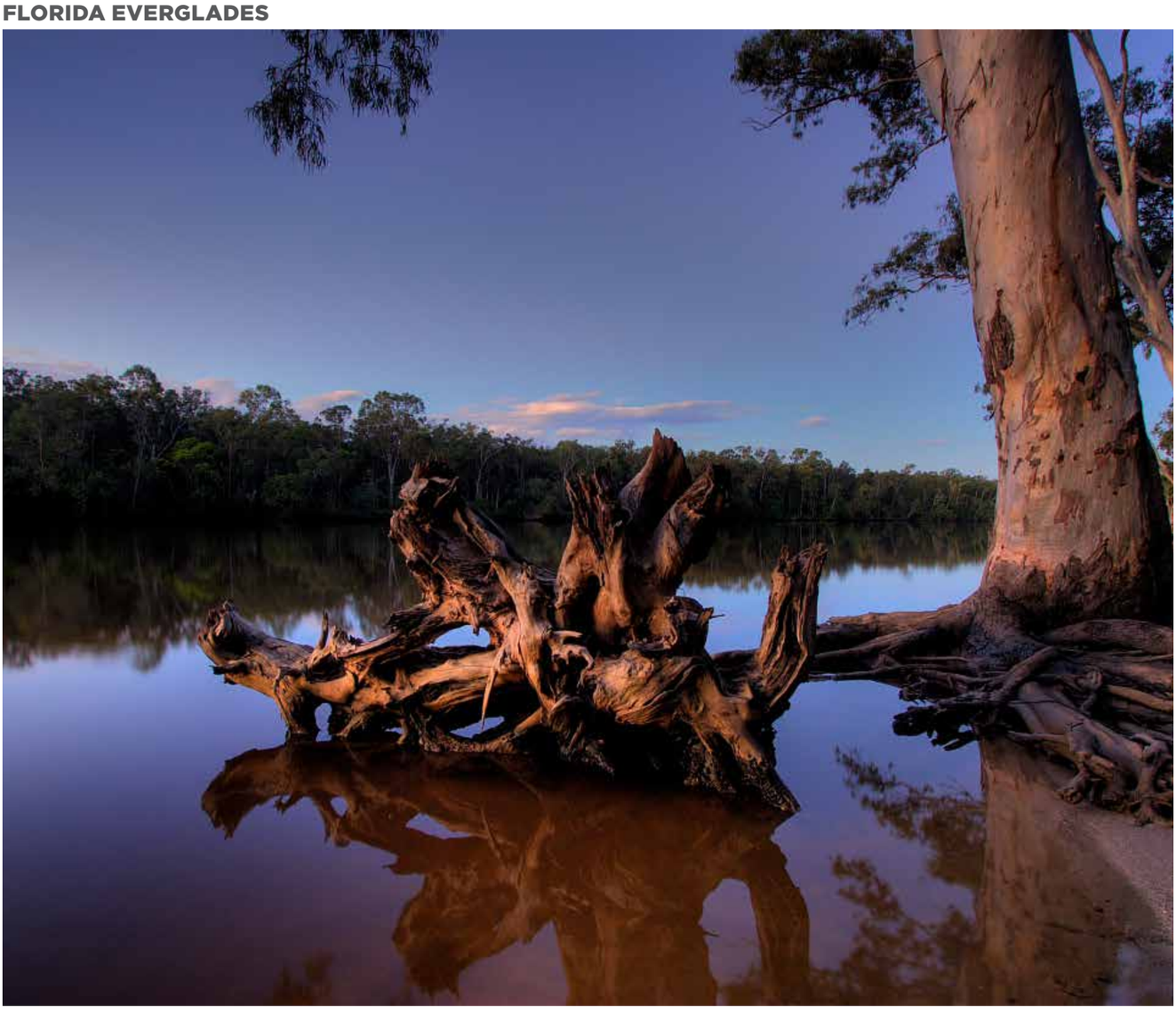
While we protect our natural resources, we must also think about the future. Addressing climate change has recently risen to the forefront of the region's priorities. State and regional transportation agencies across the country are facing extreme weather events that damage roads and bridges and cost large sums to repair, not to mention the cost to the economy from disrupted travel. Extreme weather events—including heat waves, drought, tropical storms, high winds, storm surges and heavy downpours—are becoming more frequent and severe as the climate changes.

While our location has always been one of our greatest assets, it also makes us one of the most vulnerable places in the world when it comes to climate change impacts. For example, the sea level is projected to rise anywhere between nine and twenty four inches by 2060.[19] Tidal related flooding has already been a problem in many areas in Southeast Florida, such as Miami Beach and Fort Lauderdale.

Additionally, salt water intrusion is occurring at a faster and faster rate, endangering our supply of freshwater from underground aquifers. In recognition of these and other issues in the region, the Southeast Florida Regional Climate Compact was created. It is a voluntary partnership among the governing bodies in the region focusing on collaboration and cooperation to protect the entire region, and was adopted unanimously in 2010 by Monroe, Miami-Dade, Broward, and Palm Beach Counties.

19 Southeast Florida Regional Climate Change Compact, 2011

FLORIDA EVERGLADES



Credit: Keith Ramos. https://www.flickr.com/photos/usfwsendsp/5105566100

ENDANGERED MANATEE

UNDERWATER VIEW IN BISCAYNE NATIONAL PARK

Credit: wildhog1977. https://www.flickr.com/photos/50764314@N04/6154566574

ENDANGERED FLORIDA PANTHER

SOUTH FLORIDA CLIMATE CHANGE VULNERABILITY ASSESSMENT AND ADAPTATION PILOT PROJECT

In 2013, the Federal Highway Administration (FHWA) sponsored climate resilience pilot studies in selected states and metropolitan areas in the U.S. The intent of these pilot studies was to examine approaches to "conduct climate change and extreme weather vulnerability assessments of transportation infrastructure and to analyze options for adapting and improving resiliency." The Broward Metropolitan Planning Organization (MPO), as lead agency on behalf of the region's three MPOs, and in partnership with other agencies, received one of the pilot projects. The project studied the southeast Florida four-county region including Monroe, Miami-Dade, Broward and Palm Beach Counties.

Five study objectives were adopted to guide the analysis:

1. Provide adaptation analysis capability
2. Identify adaptation projects and strategies
3. Apply a vulnerability framework and provide feedback to the planning process
4. Enhance decision support
5. Strengthen institutional capacity

The study examined three climate change-related stresses: sea level rise (SLR) inundation, storm surge flooding, and heavy precipitation induced flooding. Only roadway and passenger rail facilities on the designated regional transportation network were considered as part of this analysis.

HURRICANE IRENE FLOODING IN BROWARD COUNTY

The overall approach to the vulnerability assessment was based on the FHWA's Climate Change and Extreme Weather Vulnerability Assessment Framework. A scoring system was used to rate each road and rail link in the region with respect to their vulnerability to permanent sea level rise inundation and periodic inundation from storm surge and heavy rainfall. The level of vulnerability for any particular asset was defined as a product of three factors, following the guidance in the FHWA Vulnerability Framework:

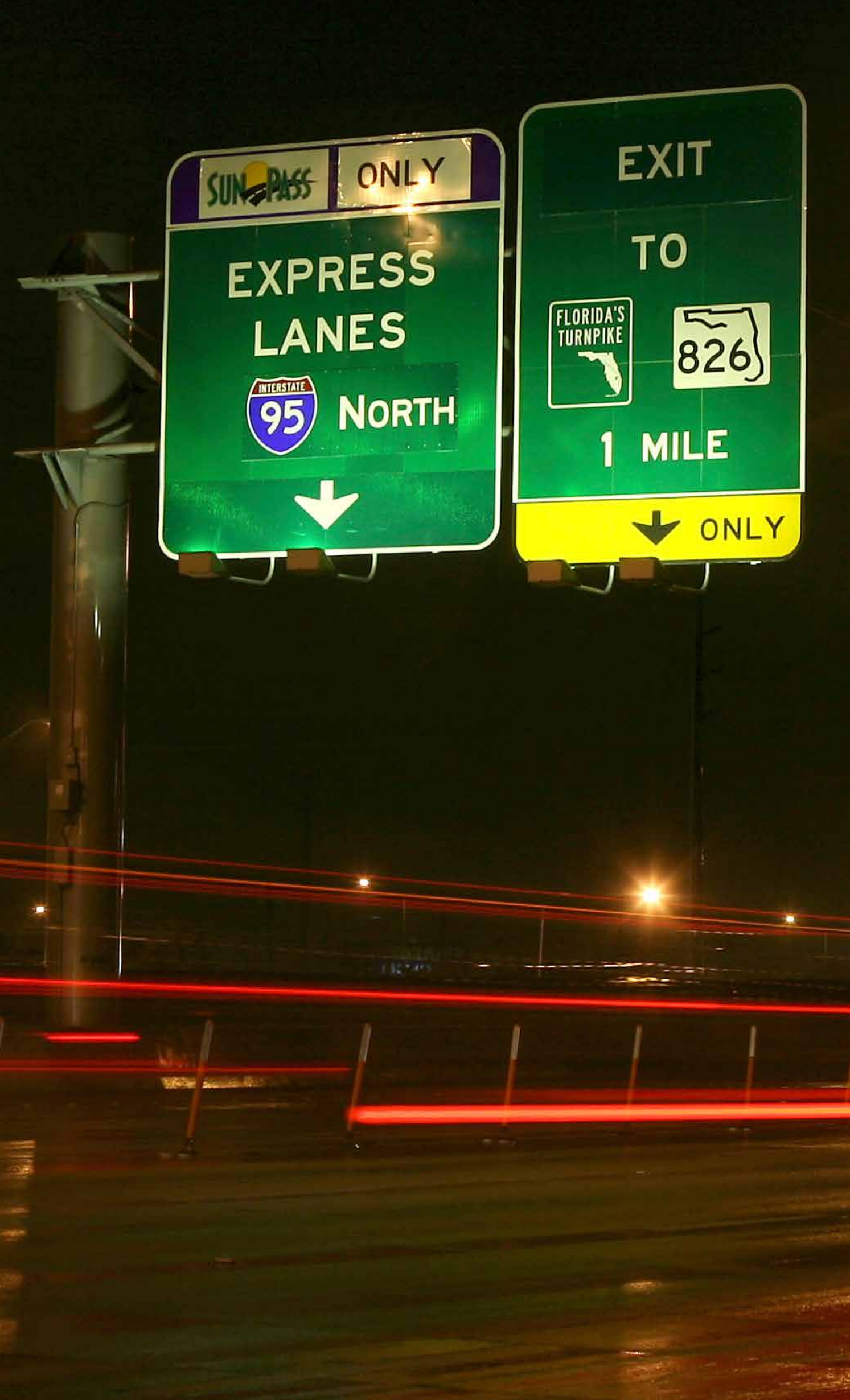
- **Exposure:** The degree to which a transportation facility is subject to adverse climate changes
- **Sensitivity:** The capacity of an asset to deal with changes in a climate stressor
- **Adaptive capacity:** The ability of the transportation network to deal with the loss of an impacted asset

Based on the vulnerability assessment, the road and passenger rail segments considered most vulnerable were identified, as shown in Figure 11. Causeways and regional facilities on barrier islands were highly vulnerable due to long detour lengths and low elevations. Regional roadways through the Everglades were highly vulnerable due to high flood exposure, low elevations and long detour lengths. The map to the right indicates the scores for the vulnerability to Sea Level Rise by Road Segment for Broward, Miami-Dade and Palm Beach Counties.

In addition to the identification of vulnerable assets, the study recommended actions in five areas of decision-making: transportation policy, planning and prioritization; rehabilitation or reconstruction of existing facilities in high risk areas; new facilities in new rights-of-way in high risk areas; system operations; and system maintenance. This pilot project was being prepared during the production of the 2040 RTP and information was shared with regional partners as it became available. Final recommendations will be considered in future regional planning activities.

For more information on the pilot project, please visit www.browardmpo.org.

FIGURE 11
SEGMENT VULNERABILITY SCORE


SUNPASS
ONLY
EXPRESS
LANES
INTERSTATE
95
NORTH
EXIT
TO
FLORIDA'S
TURNPIKE
826
1 MILE
ONLY

SECTION

2

OUR NETWORK

The 2040 Regional Corridor Network identifies corridors that support existing and future regional travel of people and goods and provides for stronger regional planning. The development of this network is a part of the ongoing coordination efforts of the region's three metropolitan planning organizations (MPOs) – Miami-Dade, Broward, and Palm Beach MPOs. This section documents the development of the 2040 Regional Corridor Network, including Network criteria definitions, Network statistics, and a Network map.

This network combined with the transit vision, freight network, and greenways and trails network make up the regional multimodal system of Southeast Florida. By having this agreed upon, defined regional system, Southeast Florida is better prepared to identify regionally significant investments and associated funding.

2040 NETWORK CRITERIA

The foundation of the 2040 Regional Corridor Network was derived from previous regional planning efforts including the 2030 Corridors of Regional Significance and 2035 Regional Transportation Network. The 2040 Network maintains the core elements of previous efforts, while revising criteria to ensure the most current industry definitions were applied and refining criteria to ensure simplicity, consistency, and predictability. Ultimately, four criteria were utilized to guide the regional corridor network development. These are described below and followed by a map of the 2040 regional corridor network.

1. PRINCIPAL ARTERIALS

Definition: Interstate, Freeway/Expressway and all other Principal Arterials

Source: Draft 2010 Functional Classification for FDOT Districts 4 and 6, May 9, 2013

2. PLANNED PHYSICAL EXTENSIONS OF PRINCIPAL ARTERIALS

Definition: Interstate, Freeway/Expressway and all other Principal Arterials that are in the adopted LRTP Cost Feasible Plans for future expansion

Source: 2035 LRTP Cost Feasible Plan for Broward, Miami-Dade and Palm Beach County MPOs

3. STRATEGIC INTERMODAL SYSTEM (SIS) NETWORK

Definition: SIS and Emerging SIS Corridors, Hubs, Connectors, Railways and Waterways

Source: FDOT Central Office SIS facilities, April 2013

4. PRINCIPAL ARTERIAL CONNECTIONS

Definition: (1) Minor Arterials connecting to a Freeways/Expressways and/or SIS Corridors; (2) extensions of Principal Arterials that cross the intercoastal for evacuation purposes; (3) key connections of 'gaps' in the network; (4) Non-principal Arterials carrying 50,000 AADT or greater; and (5) extensions of facilities carrying 50,000 AADT or greater to complete a regional network connection.

Source: Draft 2010 Functional Classification for FDOT Districts 4 and 6, May 9, 2013; FDOT Central Office SIS facilities, April 2013; and Adopted Countywide Evacuation Routes – Broward, Miami-Dade and Palm Beach County.

WHAT IS A PRINCIPAL ARTERIAL?

The principal arterial system provides the highest level of mobility at the highest speed and is intended for long, uninterrupted travel. The system includes Interstate highways, other freeways and expressways, and other principal arterials. The system serves major activity centers and the highest traffic areas. It carries a large amount of the area's traffic through highly traveled areas in the most efficient manner on a minimum of mileage. Most of the trips entering and exiting urban areas are on urban principal arterials. The network also serves to connect rural arterials into urban areas.

WHAT IS A MINOR ARTERIAL?

Minor Arterials serve shorter trips and smaller areas than their higher arterial counterparts. They also offer connectivity to the higher arterial system. In an urban context, they provide local connectivity to the major arterial system and within may carry local bus routes.

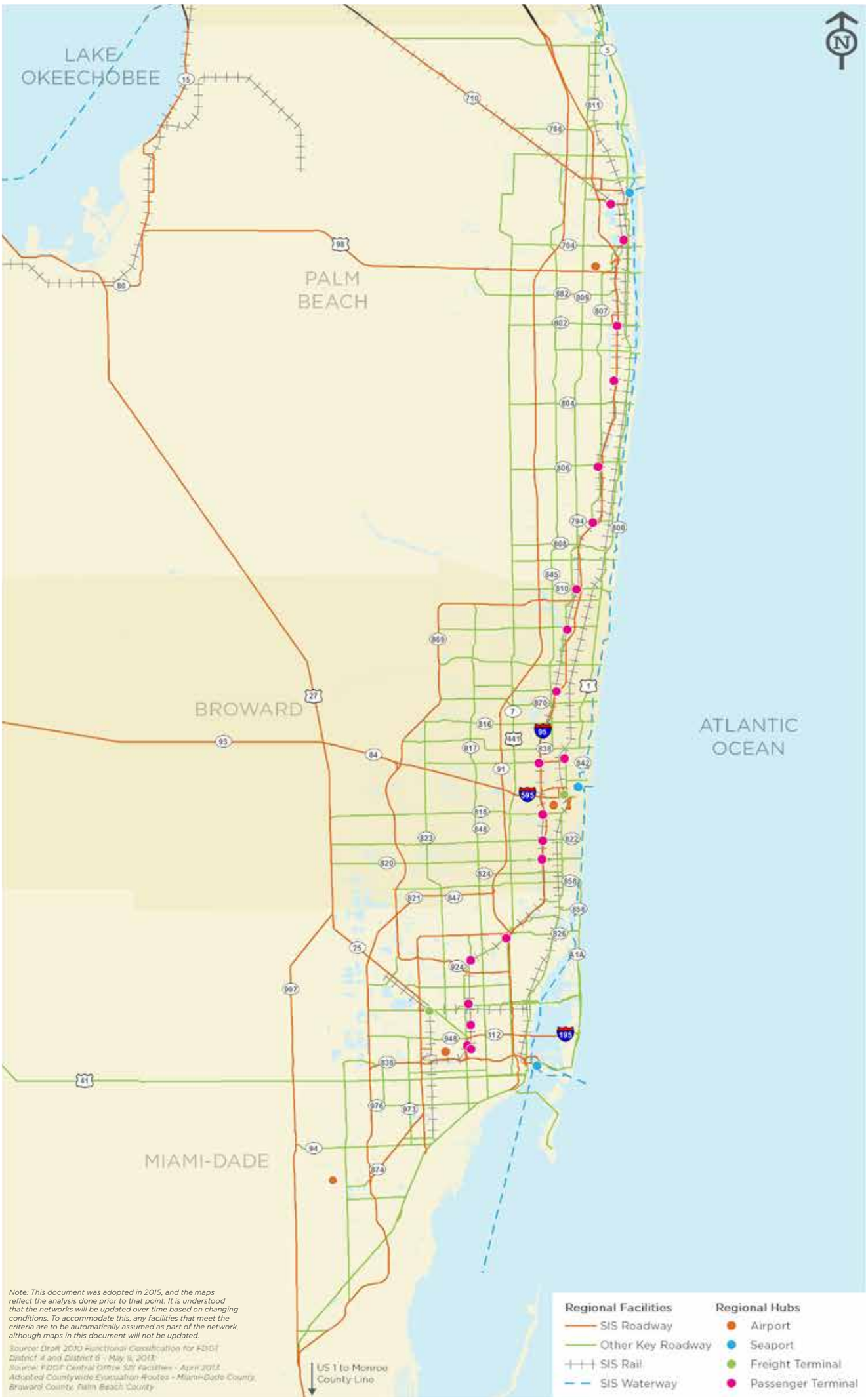
WHAT IS THE STRATEGIC INTERMODAL SYSTEM (SIS)?

The Strategic Intermodal System (SIS) was established in 2003 to enhance Florida's economic competitiveness by focusing state resources on the transportation facilities most critical for statewide and interregional travel. The SIS is a statewide network of high priority transportation facilities, including the state's largest and most significant commercial service airports, spaceport, deepwater seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways, and highways. These facilities are the workhorses of Florida's transportation system. They carry more than 99 percent of all commercial air passengers and cargo, virtually all waterborne freight and cruise passengers, almost all rail freight, and 89 percent of all interregional rail and bus passengers. They also account for more than 70 percent of all truck traffic and 55 percent of total traffic on the State Highway System. The SIS comprises state highways owned by the Florida Department of Transportation (FDOT) as well as airports, spaceports, seaports, waterways, rail lines and terminals, and roads owned by local governments, independent authorities, and the private sector. All SIS facilities are eligible for state transportation funding, regardless of mode or ownership, with state funding covering varying shares of the project costs. The SIS is a primary focus of FDOT and partner funding programs for state transportation capacity improvements; however, it is not a single grant program for funding all of these facilities and their needs.

NOTE: Sources for definitions include the Highway Functional Classification Concepts, Criteria and Procedures 2013 Edition and the 2010 Adopted Florida's Strategic Intermodal System Strategic Plan.

This document was adopted in 2015, and the maps reflect the analysis done prior to that point. It is understood that the networks will be updated over time based on changing conditions. To accommodate this, any facilities that meet the criteria are to be automatically assumed as part of the network, although maps in this document will not be updated.

FIGURE 12
2040 REGIONAL CORRIDOR NETWORK



Note: This document was adopted in 2015, and the maps reflect the analysis done prior to that point. It is understood that the networks will be updated over time based on changing conditions. To accommodate this, any facilities that meet the criteria are to be automatically assumed as part of the network, although maps in this document will not be updated.

Source: Draft 2010 Functional Classification for FDOT District 4 and District 6 - May 9, 2013.
Source: FDOT Central Office SIS Facilities - April 2013.
Adopted Countywide Evacuation Routes - Miami-Dade County, Broward County, Palm Beach County.

2040 REGIONAL CORRIDOR NETWORK STATISTICS

The 2040 Network consists of several transportation elements including roadways, rail, waterways and transportation hubs. The statistics as a region as shown below for each element. For specific locations of these elements, please refer back to the Network map.

1, 516 MILES OF ROADWAY

THE DISTANCE FROM MIAMI TO BOSTON

263 MILES OF RAIL

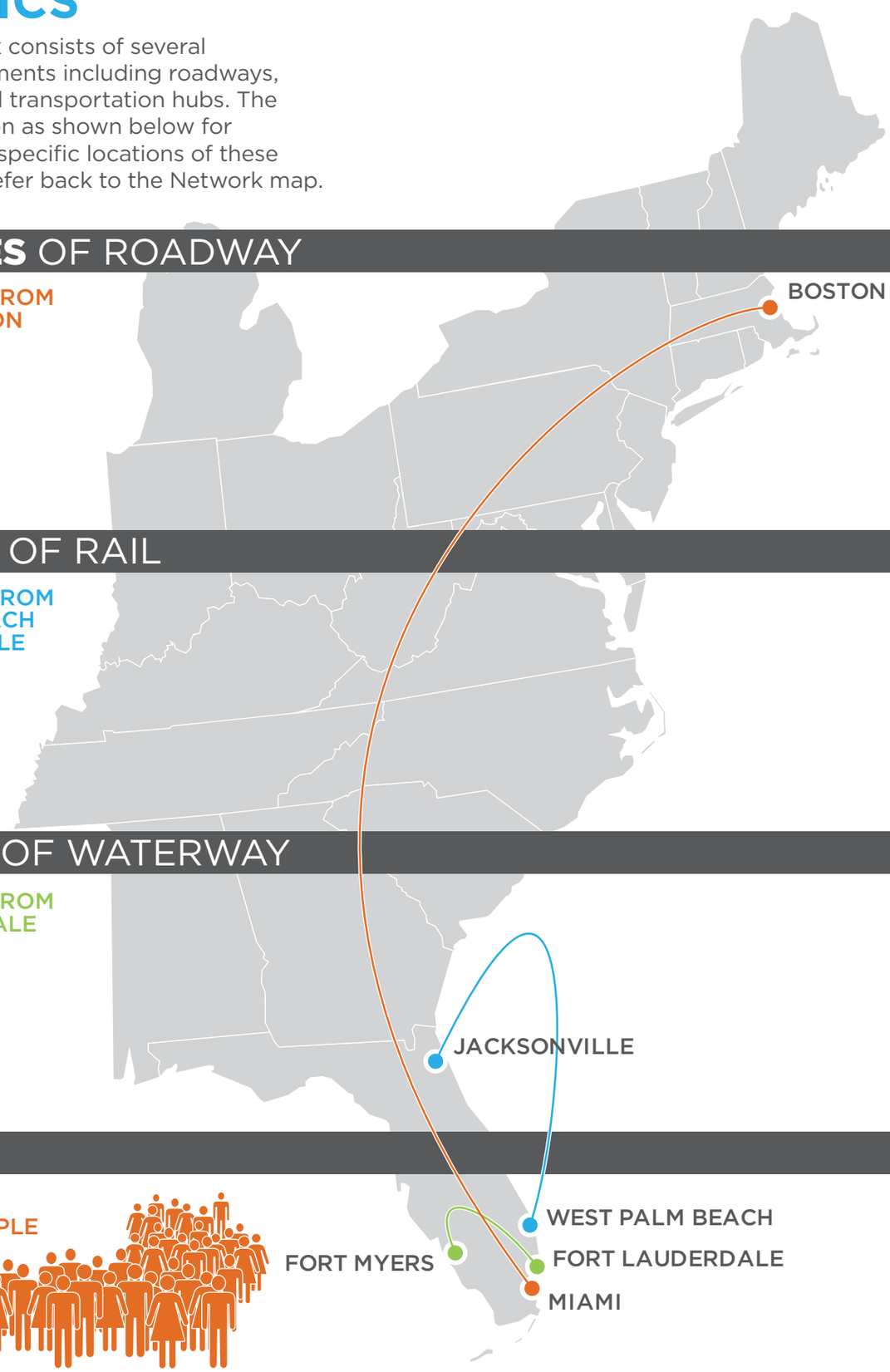
THE DISTANCE FROM WEST PALM BEACH TO JACKSONVILLE

132 MILES OF WATERWAY

THE DISTANCE FROM FORT LAUDERDALE TO FORT MYERS

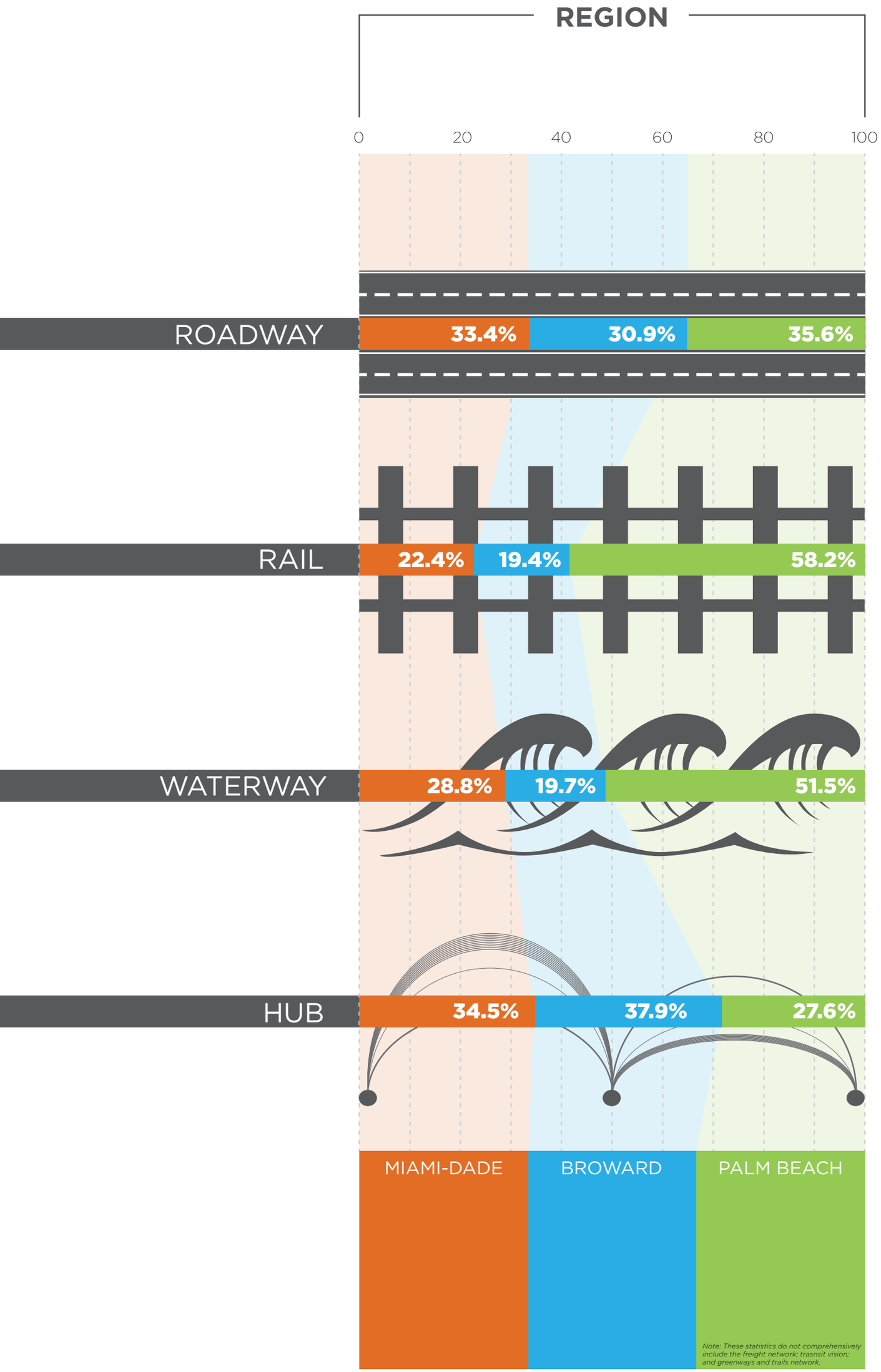
29 HUBS

SERVE OVER 46 MILLION PEOPLE ANNUALLY



The transportation elements above consist of:

SIS Corridor
SIS Connector
Emerging SIS
Principal Arterial
Planned Roadway Extension
Minor Freeway/Expressway Connection
Minor SIS Connection
>50,000 AADT
>50,000 AADT Extension
Other Key Regional Facilities
Evacuation Route over Intracoastal
Airports
Seaports
Freight Terminals
Passenger Terminals


REGION
0
20
40
60
80
100
ROADWAY
33.4%
30.9%
35.6%
RAIL
22.4%
19.4%
58.2%
WATERWAY
28.8%
19.7%
51.5%
HUB
34.5%
37.9%
27.6%
MIAMI-DADE
BROWARD
PALM BEACH
Note: These statistics do not comprehensively include the freight network; trasnsit vision; and greenways and trails network.


evian

SECTION

3

OUR PLANNING PROCESS

The Regional Plan has undergone an inclusive planning process to ensure its compatibility with local and statewide plans and visions, as well as the desires of the community. This process has allowed for the creation of a regional vision that not only takes into account the needs and desires of each county, but also relates them to each other in a way that can only be done regionally.

HISTORY OF REGIONAL COORDINATION

As a region that formed from a single county, we have always been connected. However, it was not until 2000 that the Miami Urbanized Area was created, encompassing the eastern portions of Miami-Dade, Broward, and Palm Beach Counties. For many years, the MPOs of each county informally coordinated with each other. However, in 2005 this changed with the creation of the Southeast Florida Transportation Council (SEFTC) from an interlocal agreement between the three MPOs. The SEFTC is made of representatives of each MPO Board and meets two- to four-times per year. It serves as a formal forum for policy coordination and communication and undertakes regional planning efforts for all transportation modes including:

- Regional transportation plans covering the tri-county region
- Regional project prioritization
- Regional transit and freight systems
- Regional public involvement
- Regional performance measurement
- Regional transportation improvement program

RTTAC MEETING AT PALM BEACH MPO

2005 — **SOUTHEAST FLORIDA TRANSPORTATION COUNCIL**

2006

2007 — REGIONAL TRANSPORTATION TECHNICAL ADVISORY COMMITTEE (RTTAC)

2008 — RTTAC MODELING SUBCOMMITTEE

2009

2010 — ADOPTION OF 2035 REGIONAL TRANSPORTATION PLAN

2011

2012

2013 — REGIONAL PUBLIC PARTICIPATION SUBCOMMITTEE

2014 — FREIGHT ADVISORY SUBCOMMITTEE

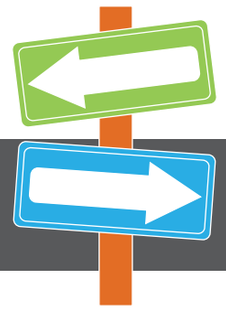
2015 — REGIONAL TRANSPORTATION SYSTEM MANAGEMENT & OPERATIONS SUBCOMMITTEE

ADOPTION OF 2040 REGIONAL TRANSPORTATION PLAN

To support this mission, there is a staff-level advisory committee and three staff-level subcommittees that inform the SEFTC on technical issues.

REGIONAL TRANSPORTATION TECHNICAL ADVISORY COMMITTEE

The *Regional Transportation Technical Advisory Committee (RTTAC)* meets quarterly to address many of the issues brought before the SEFTC. Staffed by the three MPOs, FDOT, Florida Turnpike Enterprise, Miami-Dade Expressway Authority, the four area transit agencies (including SFRTA), Port Everglades, and the two Regional Planning Councils, the group recommends technical decisions to the SEFTC and is responsible for the development of the RTP.



MODELING SUBCOMMITTEE

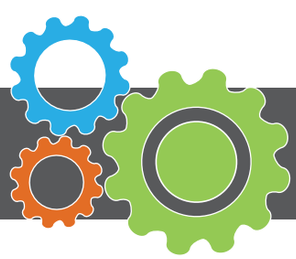
The *Modeling Subcommittee* meets quarterly to discuss travel demand modeling. It consists of modeling experts from agencies throughout the region that determines guidelines, policies, and technical applications of travel demand modeling activities in the Southeast Florida Region.

PUBLIC PARTICIPATION SUBCOMMITTEE

The *Public Participation Subcommittee* is made up of the public information officers from the three MPOs and FDOT District Four and Six. They focus on regional-level public involvement activities in Southeast Florida.

FREIGHT ADVISORY SUBCOMMITTEE

The *Freight Advisory Subcommittee* meets quarterly and provides technical input and direction to the 2040 Southeast Florida Regional Freight Plan. It consists of many agencies throughout the region that are affected by freight issues, including the MPOs, FDOT, airports, seaports, economic development councils, railroads, and business representatives.



TRANSPORTATION SYSTEM MANAGEMENT & OPERATIONS SUBCOMMITTEE

The *Transportation System Management & Operations (TSM&O) Subcommittee* coordinates TSM&O projects so that they are better integrated within the region's planning process/documents and promotes program resources to support these projects. The group meets on an as-needed basis and members include representatives from Miami-Dade Expressway Authority, Florida Turnpike Enterprise, the MPOs, transit agencies, County Traffic Engineering Divisions, and FDOT.

OTHER REGIONAL COMMITTEES AND INITIATIVES

PLANNING TECHNICAL ADVISORY COMMITTEE

Since the founding of the South Florida Regional Transportation Authority (SFRTA) in 2003, its Planning Technical Advisory Committee (PTAC) has provided technical recommendations to the SFRTA Governing Board, through the SFRTA Executive Director, on regional transportation planning and land-use planning issues. The PTAC consists of representatives from: the Broward, Miami-Dade, and Palm Beach Metropolitan Planning Organizations; the three county transit operators (Broward County Transit, Miami-Dade Transit, and Palm Tran); the South Florida and Treasure Coast Regional Planning Councils; the Florida Department of Transportation (FDOT Districts 4 and 6); and SFRTA.

The committee supports and advises the SFRTA Board on various regional transportation issues. The PTAC serves as a steering committee for the SFRTA Transit Development Plan (TDP) and SFRTA Shuttle Bus Program, annually endorsing the TDP and SFRTA Five Year Shuttle Bus Service and Financial Plan documents. The committee also reviews and comments on a variety of SFRTA projects, including transit oriented development (TOD) plans and regionally significant projects and initiatives being pursued by SFRTA's partner agencies. The committee typically meets on a bi-monthly basis. To learn more about the PTAC and other SFRTA supporting committees, please visit http://www.sfrta.fl.gov.

TRI-RAIL COASTAL LINK EXECUTIVE STEERING COMMITTEE

The planned Tri-Rail Coastal Link service on the Florida East Coast (FEC) railway is a strategic investment for Southeast Florida and has the ability to enhance the long-term competitive position of our region. The Coastal Link will generate an extensive range of benefits that go beyond the direct impacts of any individual project, including spurring economic development, creating jobs, improving regional access and mobility, and providing opportunities for transit-oriented development. The South Florida Regional Transportation Authority (SFRTA) and the Florida Department of Transportation (FDOT) along with our partners at the Miami-Dade, Broward and Palm Beach Metropolitan Planning Organizations (MPOs), the Southeast Florida Transportation Council (SEFTC), and the South Florida and Treasure Coast Regional Planning Councils are working diligently to make the Coastal Link service a reality in Southeast Florida.

Initially coordinated by FDOT, the Executive Steering Committee guides and directs the Project and serves as a liaison to partner agencies. The Executive Steering Committee meets bi-monthly to discuss Project status, issues facing the Project and to develop strategies for resolving Project-related challenges. After Project Development is completed, the Executive Steering Committee will be coordinated by SFRTA as the project sponsor. The Sub-Committees covering technical, financial and public outreach elements, report to the Executive Steering Committee. To learn more about this committee please visit www.tri-railcoastallink.com.

FARE INTEROPERABILITY WORKING GROUP

In 2008, the Southeast Florida Transportation Council recommended that a partnership be formed with Broward County Transit, Palm Tran, Miami-Dade Transit, and South Florida Regional Transportation Authority, and that logistical support from the Florida Department of Transportation was needed to create an interoperable fare card. The Broward MPO and the Palm Beach MPO agreed to fund this project that will make transfers between transit systems simpler. Partners meet on an as-needed basis to see this project through to implementation.

SOUTHEAST FLORIDA TOD WORKING GROUP

The Southeast Florida Transit Oriented Development (TOD) Working Group formed in 2013 to be a forum for collaboration amongst TOD partners in Miami-Dade, Broward, and Palm Beach counties.

As an on-going self-determining group, its members work together and meet on a quarterly basis to identify the challenges to achieving TOD and decide on the best course of action to overcome these challenges. The purpose of this informal group is to work together to foster the creation of transit oriented development in Southeast Florida in a cooperative, collaborative, effective, and efficient manner. To learn more about this working group, please visit www.sfrpc.com/TOD.

23 TOD WORKING GROUP PARTNERS (AND GROWING)

invited to meetings

(group is open to all interested)

4 PLANNING DEPARTMENTS
- 3 COUNTY
- 1 CITY

4 PLANNING COUNCILS
- 2 REGIONAL
- 1 COUNTY
- 1 TRANSPORTATION

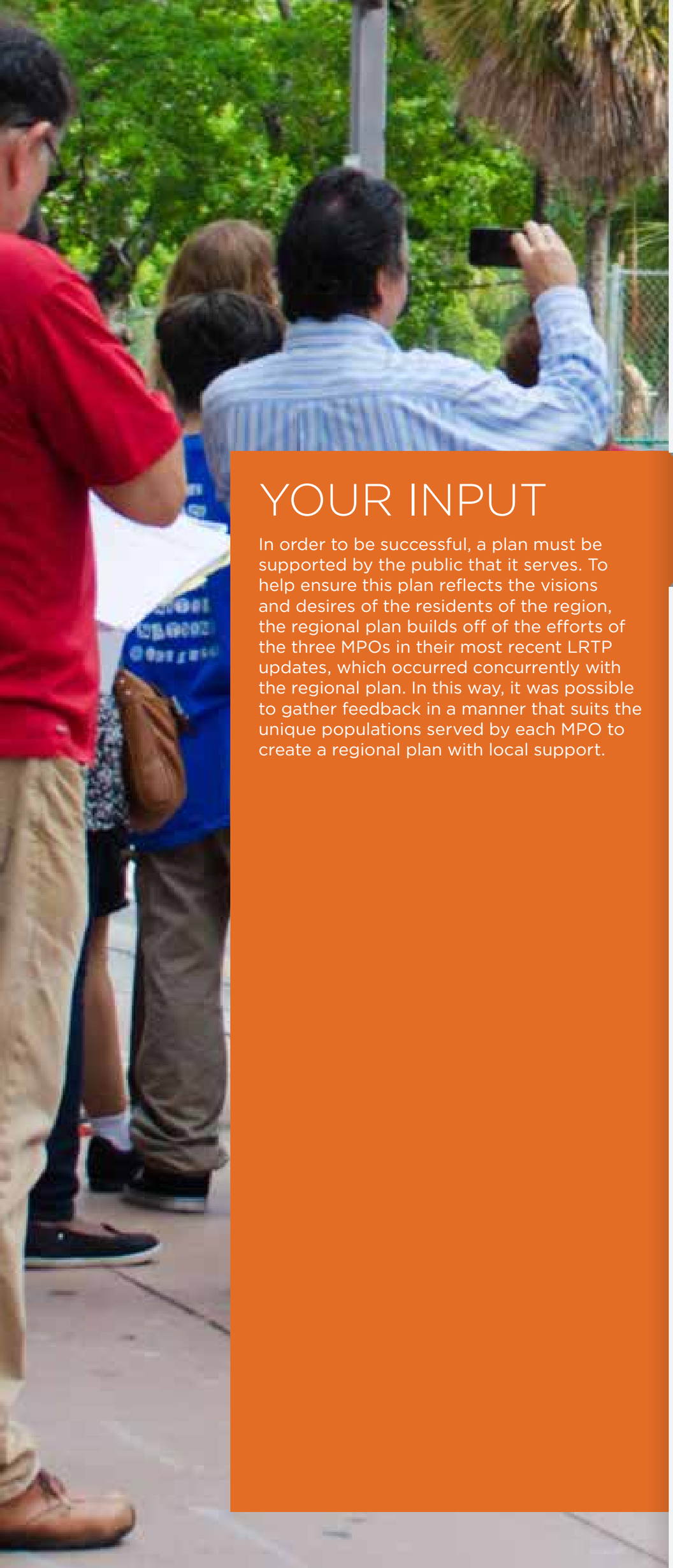
3 NON-PROFIT ORGANIZATIONS
- 1 FLORIDA ATLANTIC UNIVERSITY
- 1 SMART GROWTH PARTNERSHIP
- 1 CARRAS COMMUNITY INVESTMENT

4 METROPOLITAN PLANNING ORGANIZATIONS
- 3 MPO'S
- 1 SEFTC

4 TRANSIT AGENCIES
- 3 COUNTY
- 1 TRANSPORTATION AUTHORITY

2 FDOT DISTRICTS

2 PRIVATE SECTOR REPRESENTATIVES



SECTION

4

YOUR INPUT

In order to be successful, a plan must be supported by the public that it serves. To help ensure this plan reflects the visions and desires of the residents of the region, the regional plan builds off of the efforts of the three MPOs in their most recent LRTP updates, which occurred concurrently with the regional plan. In this way, it was possible to gather feedback in a manner that suits the unique populations served by each MPO to create a regional plan with local support.

A DIVERSE REGION

The Southeast Florida region is a diverse one, and the variety of approaches and tools used to reach out to the public is representative of this diversity. Each MPO developed and executed their own public involvement plan that was based on the needs, opportunities, and knowledge of its population. Additionally, a regional survey was administered. A summary of these efforts follows:

MIAMI-DADE MPO

The Miami-Dade MPO used several public involvement techniques to gather input for their 2040 LRTP, which was themed "Eyes on the Future," to provide future mobility and/or travel options for Miami-Dade County's general public. They offered open, effective, and continuous public involvement activities throughout the process through eleven workshops, twenty-two outreach events, various community presentations, direct telephone contacts, and interactive surveys on the 2040 LRTP's interactive website. They chose locations for both the workshops and outreach events specifically ensuring the traditionally underserved populations were reached out to. In addition, outreach events were held at various college campuses in an effort to reach Millennials. The Miami-Dade MPO used a variety of communication tools throughout the project, such as community flyers and brochures, videos, Prezies, an interactive website, social media, and news advertisements. Additionally, the Miami-Dade MPO partnered with the local municipalities and agencies to further extend their outreach efforts. In total, hundreds of people were reached just through the college campus effort and many more connections were made throughout the project.

BROWARD MPO

In combination with public meetings, one on one interviews, and other resources, the Broward MPO utilized a digital approach to maximize public participation for its 2040 LRTP, Commitment 2040. This outreach included interactive webpages; multiple online surveys; a number of workshops and appearances at community events; a local cable access television campaign; and coordination with local municipalities to capitalize on their outreach efforts. By coordinating with the municipal Public Information Officers and the Broward MPO Board members it was possible to engage the local communities directly and saturate the planning area. Overall, the MPO was able to reach over 2,700 members of the public in addition to the Community Involvement Roundtable, community groups, and local governments, agencies, and institutions.

PALM BEACH MPO

For its 2040 LRTP, Directions 2040, the Palm Beach MPO partnered with a number of agencies, organizations, and special events in the community to reach a diverse audience rather than hosting traditional public meetings specific to the LRTP. Components of the LRTP were formally presented with opportunities for public input throughout the development process at regularly scheduled and publicly advertised meetings of the MPO Board and its advisory committees. Thousands of brochures in multiple languages and other promotional materials were distributed at a variety of venues, primarily to encourage participation in a transportation survey made available online and in print form. Survey questions allowed respondents to suggest improvement projects and to prioritize values for transportation funding. The survey seamlessly linked Palm Beach County specific questions with the RTP survey, and resulted in more than 550 completed surveys. Other outreach efforts included presentations to transit boards, agency partner workshops, civic organizations, and community associations, plus the distribution of LRTP newsletters, brochures, and survey promotions at a variety of fairs, festivals and special events located throughout the county. Newsletter mailings, website postings, an online public comment form, and multiple social media platforms were also used. These approaches resulted in significantly increased public participation as compared to past LRTP updates.

REGIONAL SURVEY

In conjunction with media methods, a regional travel survey was also used to gather feedback for the RTP. This survey was specifically designed by the SEFTC for the RTP. A total of 226 people completed the survey. In comparison to the total population of the region, the sample size is too small to be considered an accurate representation. Additionally, the Palm Beach MPO utilized and promoted the survey from the RTP more heavily than did the other two MPOs, and therefore the survey results were skewed heavily towards Palm Beach County.

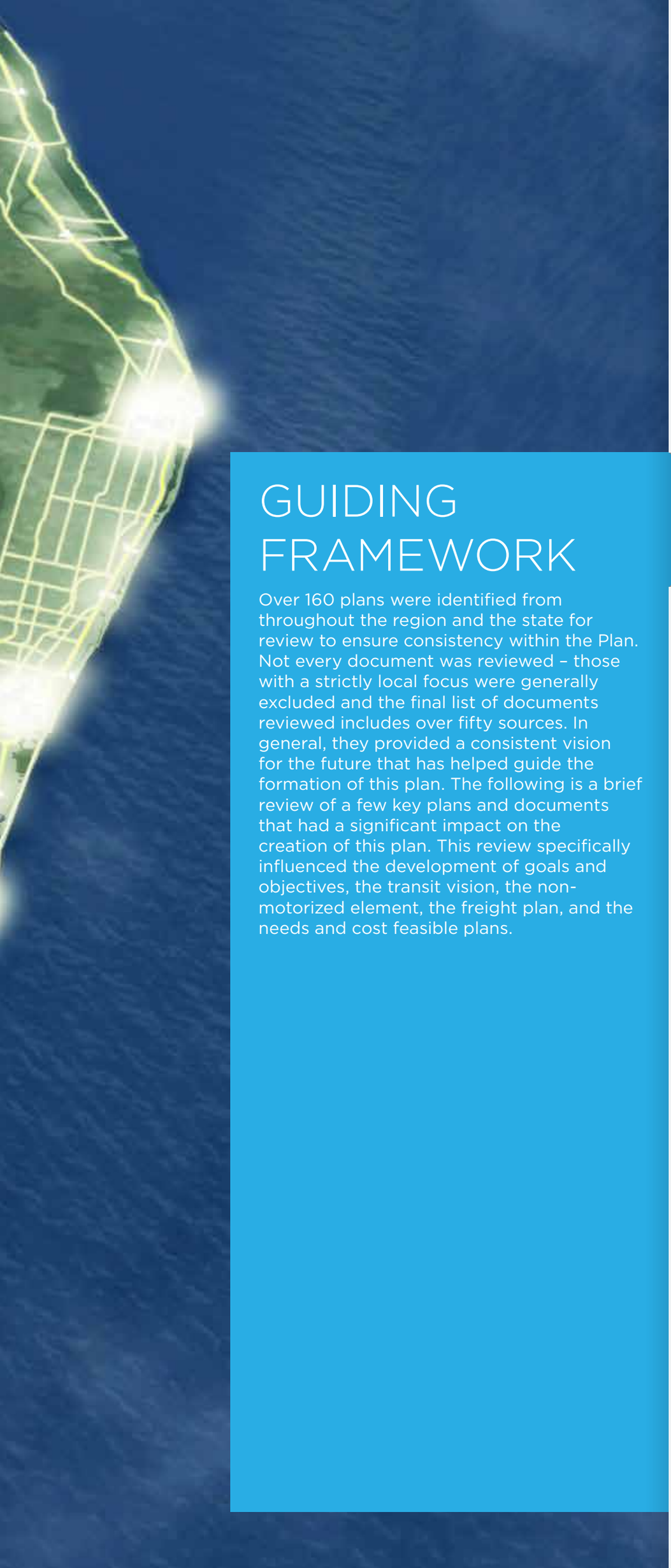
A COORDINATED EFFORT

Although each MPO undertook its public involvement activities individually, each one recognizes the importance of regional coordination and information sharing. Because of this, the SEFTC Regional Public Participation Subcommittee (PPS) was formed. At the PPS meetings, the agencies discussed their public involvement activities, successes, and lessons learned as well as the implications for the RTP throughout the LRTP development process and beyond. These collaborative discussions are agreed upon as one of the most successful aspects of the regional public involvement process.

LESSONS LEARNED

Upon reflection on the public involvement process, it was noted and understood that some of the greatest successes that can come out of the process are an understanding of what went right, where opportunities for improvement lie, and how best to improve the public involvement process for future efforts. Therefore, a number of lessons learned were developed as follows:

- The region is diverse, and therefore public involvement efforts should be reflective of that diversity. It is more important to understand the unique needs of each area and customize the approach, rather than create a uniform process for easier evaluation.
- Although the region is diverse, high level coordination and idea sharing benefits everyone. The PPS allowed the agencies to share their experiences, and together they were able to understand the needs and differences between the counties. Additionally, it allowed for a place for innovation between the organizations as they built on each other's ideas and customized them to the needs of each area.
- It is important to utilize a wide variety of strategies to reach as many people as possible. Public workshops allow for interactive activities that get people involved, but require people to go out of their way to get to them and therefore may not have as wide of a reach. Online surveys have the potential to reach a large number of people, but may not help people really understand the purpose of the project. Mobile sessions, where the outreach is brought to the public at events, can be extremely successful as they allow for in person communication without requiring people to go out of their way.
- Coordination and collaboration with local municipalities can expand the reach of public involvement activities. On top of that, tapping into other resources such as local businesses and advocacy groups can also extend the reach of the involvement activities through channels that traditional outreach may not reach.



SECTION

5

GUIDING FRAMEWORK

Over 160 plans were identified from throughout the region and the state for review to ensure consistency within the Plan. Not every document was reviewed – those with a strictly local focus were generally excluded and the final list of documents reviewed includes over fifty sources. In general, they provided a consistent vision for the future that has helped guide the formation of this plan. The following is a brief review of a few key plans and documents that had a significant impact on the creation of this plan. This review specifically influenced the development of goals and objectives, the transit vision, the non-motorized element, the freight plan, and the needs and cost feasible plans.

RELEVANT PLANS, PROJECTS, AND PROGRAMS

The documents reviewed include State and Federal expectations for regional long range transportation plans; airport and seaport master plans; inland port/intermodal logistic center studies; the SFRTA strategic regional transit system plan; transit operating data; local and statewide freight and goods movement studies; transit development plans; congestion management plans; Seven50; and others. Twenty-four of the plans reviewed were found to be especially relevant to the regional plan, as described herein.

2040 LONG RANGE TRANSPORTATION PLANS

The adopted 2040 Long Range Transportation Plans (LRTPs) for the Miami-Dade, Broward, and Palm Beach MPOs were reviewed. Each plan develops goals and future projects required to meet future demand, as well as prioritizing and determining funding sources for those projects. While the length, detail, and wording varied, each plan presented a similar vision: one that develops and leverages a safe, efficient, connected, and multimodal transportation system to support a healthy, livable, and prosperous future. The regional projects identified in each LRTP were included in this plan.

TRANSPORTATION IMPROVEMENT PLANS (FY 2012/13- FY 2016/17)

The most recent Transportation Improvement Plan (TIP) for each MPO was also reviewed. While the LRTP presents a list of long range plans, the TIP focuses on those that can be done in the next five years. The TIP for each MPO is based on FDOT's work program, and contains large and small projects. The projects in the TIP were included in this plan as funded, near term improvements.

3 STATE DOCUMENTS

19 COUNTY DOCUMENTS

3 REGIONAL DOCUMENTS

25 KEY PLANS REVIEWED

SEVEN 50 PROSPERITY PLAN

Seven50 ("seven counties, 50 years") is a regional plan that provides a foundation for future development in the seven county region (Indian River, St. Lucie, Martin, Palm Beach, Broward, Miami-Dade, and Monroe Counties). It was coordinated by the by the Palm Beach and Treasure Coast Regional Planning Councils (RPCs). The plan is community driven, and the outreach included over one million people. The plan focuses on economic development, social equity/inclusiveness, multimodal transportation, and sustainable and resilient development over the next 50 years and beyond. Like the 2040 LRTPs, it provides a consistent vision for a multimodal future. It places a particular emphasis on sustainability in the face of climate change.

TRANSIT DEVELOPMENT PLANS

The Transit Development Plans (TDPs) for Miami-Dade Transit (MDT), Broward County Transit (BCT), PalmTran, and the South Florida Regional Transportation Authority (SFRTA) each consider the current transit system and any potential needs for 10 years into the future based on demographic, transportation, and economic needs. A number of projects were identified in each plan that were included in the three LRTPs and the RTP.


PEDESTRIAN AND BICYCLE PLANS

A variety of pedestrian and bicycle plans were reviewed for each county, including the Downtown Miami Bicycle & Pedestrian Master Plan, the Miami 2030 Bicycle Plan, the Broward County Greenways Master Plan, the Palm Beach MPO's Master Comprehensive Bicycle Transportation Plan, and the TCRPC's Regional greenways Plan. The plan reviews identified some common goals but also some differences. For example, Palm Beach County has generally focused on commuting trips while Miami-Dade County's plans have largely focused on completing a greenways network. The review of policies and goals in the plans helped to determine the basis of the pedestrian and bicycle network in the region.



COUNTY COMPREHENSIVE PLANS

The transportation element of each County's Comprehensive Plan were reviewed to help determine the direction of each county. Each plan was largely reflective of the LRTP, focusing on creating a balanced and multimodal transportation system. Each plan also laid out desired future county-level pedestrian/bicycle and vehicular transportation networks that were incorporated into this plan.

AIRPORT, SEAPORT, AND FREIGHT PLANS

The master plans for each of the three major airports and seaports as well as a number of freight plans relevant to the region were reviewed. These plans identify future improvements for each port, and are important to aid in an understanding of the types of freight and cargo that will be impacting our transportation system in the future. Additionally, the 2040 Southeast Florida Regional Freight Plan prioritizes the needed freight projects in the region.



STATEWIDE PLANS

A number of statewide transportation plans were reviewed, such as the 2060 Florida Transportation Plan, the Strategic Highway Safety Plan, and the Strategic Intermodal System Strategic Plan. These plans identified corridors and aspects of the region's transportation network that are critical to the state's transportation network, as well as potential future needs and areas for improvement at the state level.

MAP-21 CONSIDERATIONS

MAP-21, the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), is the country's first long-term surface transportation funding authorization enacted since 2005. It was signed into law by President Obama on July 6, 2012 and provided $105 billion for fiscal years (FY) 2013 and 2014. MAP-21 is a milestone for the U.S. economy: it transformed the policy and programmatic framework for investments to guide the system's growth and development. Since the original bill expired in October 2014, Congress has enacted short term extensions to the law.

MAP-21 creates a streamlined, performance-based, and multimodal program to address the many challenges facing the U.S. transportation system. These challenges include improving safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery. Fortunately Florida, and Southeast Florida in particular, have initiated a similar performance-based approach in recent years, and the projects included in the 2040 RTP are consistent with MAP-21 goals.

SETTING THE COURSE FOR TRANSPORTATION INVESTMENT IN HIGHWAYS, MAP-21...

...STRENGTHENS AMERICA'S HIGHWAYS

MAP-21 expands the National Highway System (NHS) to incorporate principal arterials not previously included. Investment targets the enhanced NHS, with more than half of highway funding going to the new program devoted to preserving and improving the most important highways -- the National Highway Performance Program.

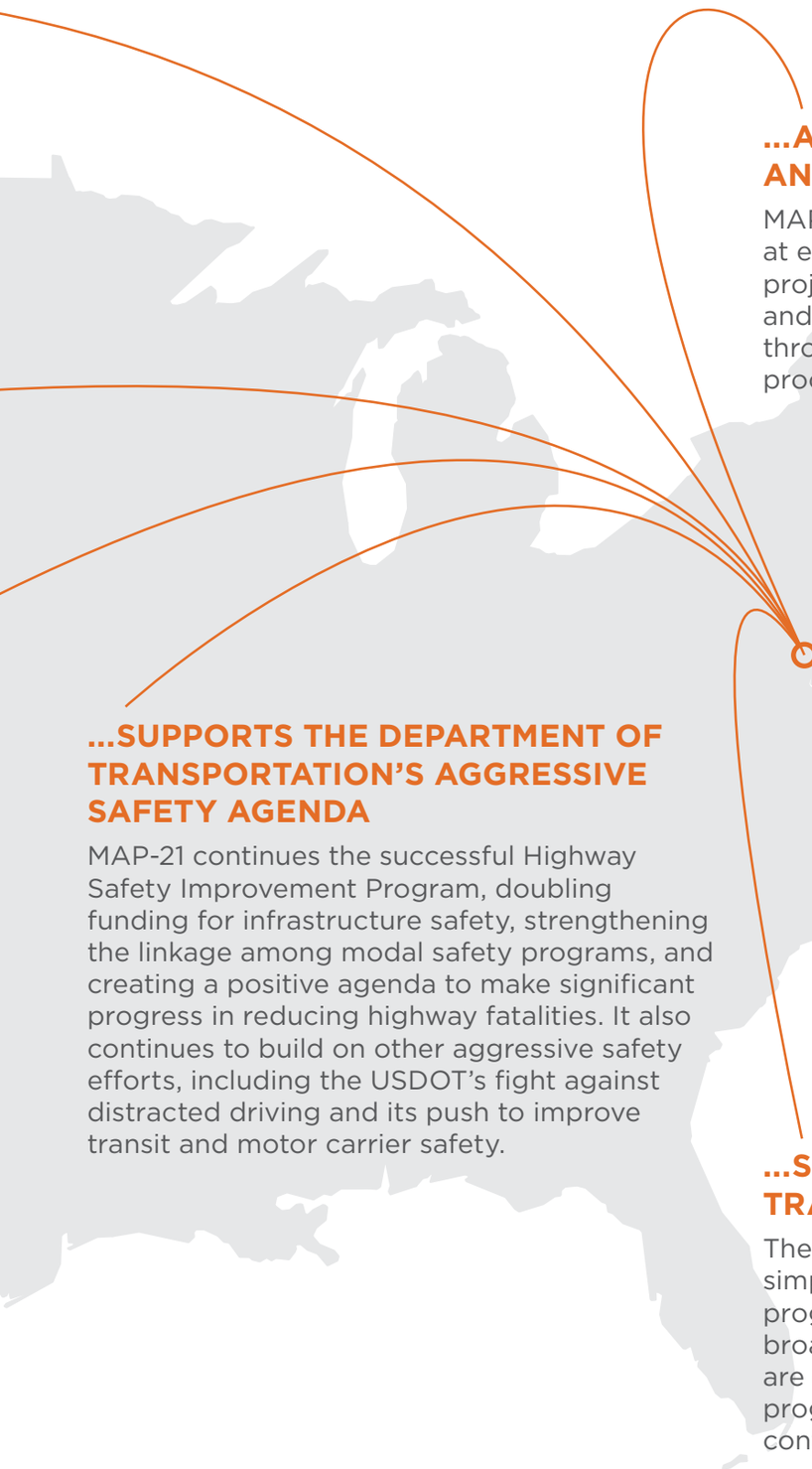
...CREATES JOBS AND SUPPORTS ECONOMIC GROWTH

MAP-21 authorizes $82 billion in Federal funding for FYs 2013 and 2014 for road, bridge, bicycling, and walking improvements. In addition, MAP-21 enhances innovative financing and encourages private sector investment through a substantial increase in funding for the TIFIA program. It also includes a number of provisions designed to improve freight movement in support of national goals.

...ESTABLISHES A PERFORMANCE-BASED PROGRAM

Under MAP-21, performance management will transform Federal highway programs and provide a means to more efficient investment of Federal transportation funds by focusing on national transportation goals, increasing the accountability and transparency of the Federal highway programs, and improving transportation investment decision-making through performance-based planning and programming.

MAP-21 for the most part provides improvements in the way Federal funding is applied to transportation infrastructure. However, much remains to be completed in terms of setting goals and targets, and relating funding to the demonstrated performance. MAP-21 will ultimately expire and be replaced, but for the foreseeable future, it remains the law under which our transportation investments will be funded. As such, it provides the current framework under which the 2040 RTP projects will be funded. It is therefore important that the RTP demonstrate a commitment to performance-based decisions, and, for each of the major projects, a nexus to the key goals of MAP-21, such as economic development, safety and efficiency.



...ACCELERATES PROJECT DELIVERY AND PROMOTES INNOVATION

MAP-21 incorporates a host of changes aimed at ensuring the timely delivery of transportation projects. Changes will improve innovation and efficiency in the development of projects, through the planning and environmental review process, to project delivery.

...SUPPORTS THE DEPARTMENT OF TRANSPORTATION'S AGGRESSIVE SAFETY AGENDA

MAP-21 continues the successful Highway Safety Improvement Program, doubling funding for infrastructure safety, strengthening the linkage among modal safety programs, and creating a positive agenda to make significant progress in reducing highway fatalities. It also continues to build on other aggressive safety efforts, including the USDOT's fight against distracted driving and its push to improve transit and motor carrier safety.

...STREAMLINES FEDERAL HIGHWAY TRANSPORTATION PROGRAMS

The complex array of existing programs is simplified, substantially consolidating the program structure into a smaller number of broader core programs. Many smaller programs are eliminated, including most discretionary programs, with the eligibilities generally continuing under core programs.

GOALS, OBJECTIVES, AND MEASURES

The RTP was designed to guide us over the next 25 years to a sustainable future in Southeast Florida. In order to ensure the 2040 Regional Transportation Plan is aligned with State, regional, and local efforts and that it is yielding the intended results, the prior 2035 Regional Goals, Objectives, and Measures (GOMS) were revised and refined. To support this process, a review of legal mandates and relevant State, regional, and local documentation was conducted. Review of the background documentation discussed above resulted in 2040 Regional GOMs that explicitly target the regional economy and further address regional environmental coordination and multimodal travel. These collective set of GOMs guided the region in identifying and prioritizing investments.

COMMON REGIONAL GOAL

As part of the ongoing coordination efforts among the region's three MPOs – Broward, Miami-Dade, and Palm Beach MPOs – a common regional goal was developed to be incorporated into each 2040 LRTP. The common regional goal, displayed below, was agreed upon by the SEFTC that targets coordinated regional planning for seamless travel throughout the region.

REGIONAL GOALS, OBJECTIVES, AND MEASURES

As stated before, the previous 2035 Regional Goals, Objectives, and Measures were revised and refined to reflect current and future needs and desires. The most significant changes resulting from the assessment of the 2035 Regional GOMs relate to the inclusion of: (1) a goal and related objectives targeting the regional economy, (2) an objective addressing regional environmental coordination, and (3) objectives that further support means for multimodal travel. In addition, it was recognized that the goals and objectives developed complemented one another providing for sustainability and quality of life throughout the region. Potential measures of effectiveness were further evaluated based on FDOT Central Office performance measurement activities and the SEFTC Outcomes Assessment Annual Report. The 2040 goals, objectives, and measures of effectiveness, classified by themes, are described on the following pages.

PRIORITIZATION CONNECTION

The 2040 Regional GOMs were used as a starting point in developing the evaluation criteria that was ultimately used to prioritize the unfunded needs across the region. Slight variations to the original GOMs were made; however, due to lack of consistent and readily available data.

SLOGAN

THREE METROPOLITAN AREAS –

ONE TRAVELING PUBLIC

COMMON REGIONAL GOAL IN 2040 LOCAL LRTPS

COORDINATED REGIONAL PLANNING AND DECISION-MAKING THAT RESULTS IN A SEAMLESS SYSTEM OF MULTIMODAL FACILITIES TO MEET THE TRAVEL NEEDS OF PEOPLE AND FREIGHT.

SUMMARY

GOAL 1

THEME: MOBILITY

GOAL: **PROVIDE AN EFFICIENT AND RELIABLE TRANSPORTATION SYSTEM FOR REGIONAL PASSENGER AND FREIGHT OPERATIONS**

GOAL 2

THEME: ACCESSIBILITY

GOAL: **PROVIDE MULTIMODAL ACCESS TO REGIONAL PASSENGER AND FREIGHT ACTIVITY CENTERS**

GOAL 3

THEME: CONNECTIVITY

GOAL: **PROVIDE AN INTEGRATED MULTIMODAL TRANSPORTATION SYSTEM THROUGHOUT THE REGION**

GOAL 4

THEME: ENVIRONMENT

GOAL: **PROTECT THE REGION'S ENVIRONMENT, PROMOTE ENERGY CONSERVATION, AND PROVIDE A RESILIENT AND ADAPTABLE TRANSPORTATION SYSTEM**

GOAL 5

THEME: SAFETY AND SECURITY

GOAL: **PROVIDE FOR A SAFER AND MORE SECURE TRANSPORTATION SYSTEM FOR THE REGION'S RESIDENTS, BUSINESSES AND VISITORS**

GOAL 6

THEME: ECONOMY

GOAL: **PROVIDE TRANSPORTATION INVESTMENTS TO SUPPORT AN EXPANDING REGIONAL ECONOMY**

GOAL 1

THEME

MOBILITY

GOAL

PROVIDE AN EFFICIENT AND RELIABLE TRANSPORTATION SYSTEM FOR REGIONAL PASSENGER AND FREIGHT OPERATIONS

OBJECTIVE	MEASURES OF EFFECTIVENESS
Preserve, restore and expand the existing regional transportation system capacity to support planned increases in passenger and freight demands	› Per capita regional transit capacity › Per capita regional highway capacity › Tonnage of freight goods moving through Ports
Optimize existing system capacity through such efforts as increased highway and/or transit capacity, increased freight capacity, Transportation System Management and Operations related strategies, and Travel Demand Management Strategies	› UNew Connectorgested peak VMT per lane mile › Percent of auto and freight miles severely congested › Percent of auto and freight trips achieving a reliable travel time (travel time reliability) › Percent increase in transit revenue hours

GOAL 2

THEME

ACCESSIBILITY

GOAL

PROVIDE MULTIMODAL ACCESS TO REGIONAL PASSENGER AND FREIGHT ACTIVITY CENTERS

OBJECTIVE	MEASURES OF EFFECTIVENESS
Provide competitive and reliable auto and transit travel times	› Average time spent traveling per capita › Transit to auto travel time comparisons between top 5 to 10 regional Origin-Destination pairs › Percent of trips meeting LOS criteria › Percent increase in transit on-time performance
Increase mode choice opportunities for regional travel (includes both motorized and non-motorized modes)	› Annual transit trips per capita › Commute mode share › Percent of regional network serving three or more modes › Percent population (within 1-mile) served by the regional transit system
Provide efficient and reliable regional routes for freight goods movement to and from regional freight hubs and destinations	› Per capita freight miles traveled in congestion › Percent of freight miles severely congested › Percent of freight trips achieving a reliable travel time (travel time reliability)
Provide reliable and convenient access to the region's major employment centers and regional destinations from low-income residential areas	› Percent of low-income residential areas with access (within a 1-mile buffer) to the regional transit system

GOAL 3

THEME

CONNECTIVITY

GOAL

PROVIDE AN INTEGRATED MULTIMODAL TRANSPORTATION SYSTEM THROUGHOUT THE REGION

OBJECTIVE	MEASURES OF EFFECTIVENESS
Increase multimodal connections between major residential areas and major employment centers in the region (major regional origin-destination (O-D) pairs)	› Percent of regional corridors serving regional O-D pairs that support two or more motorized modes › Percent of regional corridors serving regional O-D pairs with bicycle lanes, sidewalks, multiuse paths, greenways and/or trails
Provide premium transit service (rail, express bus and/or rapid bus) to regional destinations and major employment centers	› Percent of regional destinations and major employment centers served with premium transit service (rail, express bus and/or rapid bus)
Increase density and intensity of origins and destinations along regional transit corridors and promote development of mixed use activity centers	› Percent of total dwelling units along regional transit corridors versus region-wide total › Percent of total units (all types) within one-mile buffer of regional transit routes versus region-wide total › Reduction in percentage of single occupancy vehicle (SOV) trips

GOAL 4

THEME

ENVIRONMENT

GOAL

PROTECT THE REGION'S ENVIRONMENT, PROMOTE ENERGY CONSERVATION, AND PROVIDE A RESILIENT AND ADAPTABLE TRANSPORTATION SYSTEM

OBJECTIVE	MEASURES OF EFFECTIVENESS
Improve air quality and reduce greenhouse gas emissions through efforts such as promoting alternative vehicle technologies, increasing non-single occupant vehicle (SOV) forms of travel, promoting transportation investments that support mixed-use areas, and improving travel time reliability	› Percent decrease in per capita CO2 emissions › Per capita vehicle miles traveled (VMT) › VMT per gallons of fuel and diesel consumed
Provide and promote coordination among regional partners for transportation system resiliency and adaptability	› Number of regionally significant environment-related projects and plans with SEFTC participation
Minimize right-of-way intrusions on the natural environment, historic and/or culturally significant areas	› Percent of planned improvements with no impacts and/or fully mitigated impacts to natural environment, historic, and/or culturally significant areas

GOAL 5

THEME

SAFETY AND SECURITY

GOAL

PROVIDE FOR A SAFER AND MORE SECURE TRANSPORTATION SYSTEM FOR THE REGION'S RESIDENTS, BUSINESSES AND VISITORS

OBJECTIVE	MEASURES OF EFFECTIVENESS
Reduce fatal and serious injury crashes on regional corridors	› Number of fatal crashes per 100 million VMT › Number of serious injury crashes per 100 million VMT
Preserve and enhance the capacity of regional evacuation corridors	› Per capita regional evacuation corridor capacity

GOAL 6

THEME

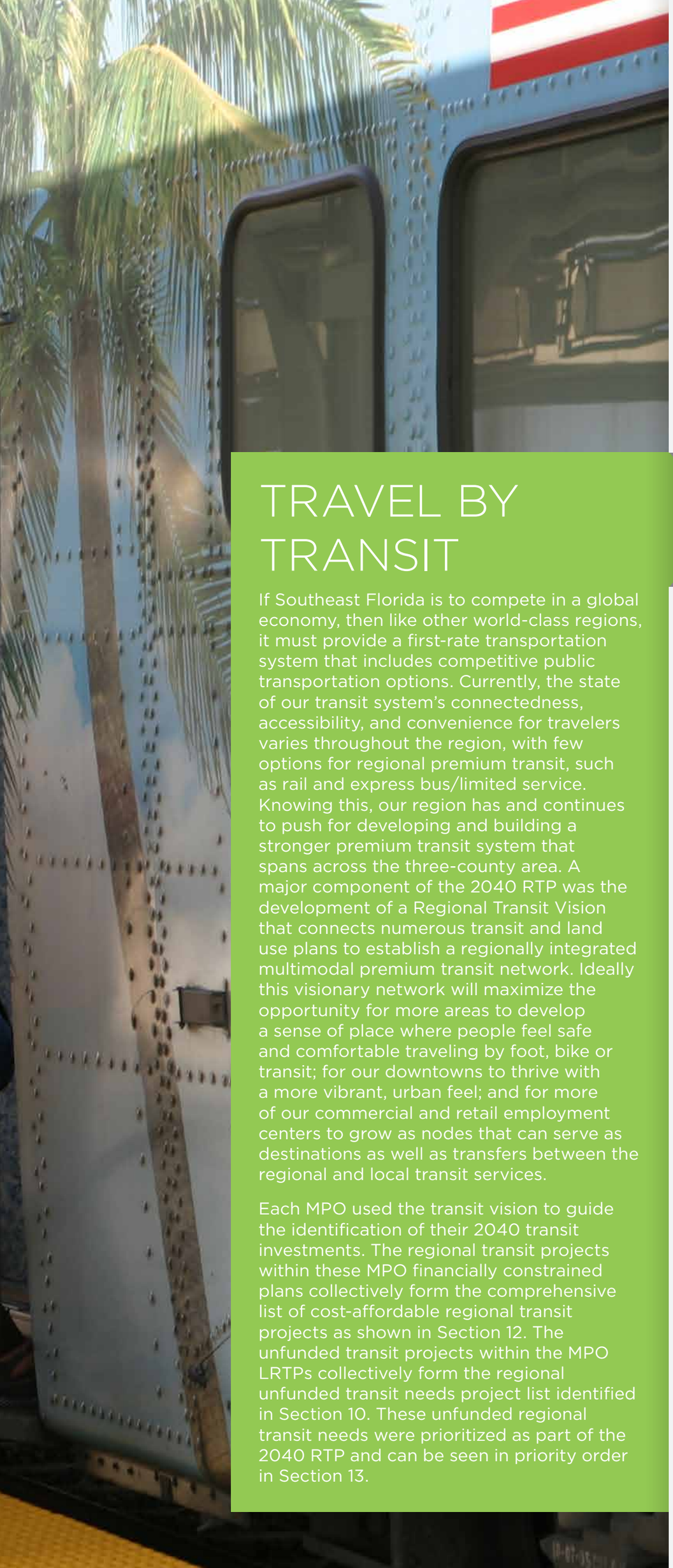
ECONOMY

GOAL

PROVIDE TRANSPORTATION INVESTMENTS TO SUPPORT AN EXPANDING REGIONAL ECONOMY

OBJECTIVE	MEASURES OF EFFECTIVENESS
Provide regional transportation facilities and services to existing and developing major employment centers	› Percent of major employment center transportation needs met by the Cost-Feasible LRTP
Decrease household income spent on transportation costs	› Per capita percent of household income spent on transportation › Per capita commute length


TRI RAIL



SECTION

6

TRAVEL BY TRANSIT

If Southeast Florida is to compete in a global economy, then like other world-class regions, it must provide a first-rate transportation system that includes competitive public transportation options. Currently, the state of our transit system's connectedness, accessibility, and convenience for travelers varies throughout the region, with few options for regional premium transit, such as rail and express bus/limited service. Knowing this, our region has and continues to push for developing and building a stronger premium transit system that spans across the three-county area. A major component of the 2040 RTP was the development of a Regional Transit Vision that connects numerous transit and land use plans to establish a regionally integrated multimodal premium transit network. Ideally this visionary network will maximize the opportunity for more areas to develop a sense of place where people feel safe and comfortable traveling by foot, bike or transit; for our downtowns to thrive with a more vibrant, urban feel; and for more of our commercial and retail employment centers to grow as nodes that can serve as destinations as well as transfers between the regional and local transit services.

Each MPO used the transit vision to guide the identification of their 2040 transit investments. The regional transit projects within these MPO financially constrained plans collectively form the comprehensive list of cost-affordable regional transit projects as shown in Section 12. The unfunded transit projects within the MPO LRTPs collectively form the regional unfunded transit needs project list identified in Section 10. These unfunded regional transit needs were prioritized as part of the 2040 RTP and can be seen in priority order in Section 13.

TRANSIT: A KEY INGREDIENT FOR A WORLD-CLASS REGION

While the great majority of our region's residents today rely on private automobiles for their transportation needs, there remains a very significant portion of the transportation market that does not have access to a vehicle or does not choose to use one, and that segment of the travel market is forecast to continue increasing.

The transit element of the regional plan seeks to develop a cohesive strategy to meet the needs of that segment in a convenient and efficient manner; attract new riders; support our tourism industry; and better connect the region. It will address the following:

- The People, through improved connections and enhancement of the transit and community experience
- The Land, through creation of hubs and land-uses that supports and encourages transit use
- The System, through convenient and seamless travel options

REGIONAL TRANSIT TODAY

As shown in Figure 13, the existing premium transit network consists of Tri-Rail, Metrorail, Metromover, and a handful of express bus services connecting residential areas to employment centers. Premium transit consists of express bus, light rail, bus rapid transit, and commuter rail. As noted in the Our Region section, the regional transit system is supported by local systems such as local bus, local shuttles, water taxis, and water buses. Our transit system is currently operated by four transit agencies: South Florida Regional Transportation Authority (SFRTA), Miami-Dade Transit (MDT), Broward County Transit (BCT), and Palm Tran. With the exception of Tri-Rail and I-95 Express Bus, transit service is generally cut at County lines. This acts as a significant barrier to longer-distance regional bus trips as well as shorter-distance, cross-county trips – it incurs delays for regular commuters; requires inter-county commuters to pay two separate times for their trip; and is confusing for visitors and infrequent users of the system. A better-integrated public transportation system across county lines would greatly increase the attractiveness of long-distance transit service in our region, would provide more options for the public, and would enhance mobility for all in the region.

PEOPLE

While almost everyone would like to see improved transit services in our region in the future, those services come at a significant public cost, particularly for on-going operations of the system, and that tends to lessen people's commitment to the investment. However, the on-going value of the investment can be most clearly seen relative to four distinct sectors of the population:

- Residents from outside the region – new immigrants and visitors
- Aging population
- Millennial generation
- Low income population

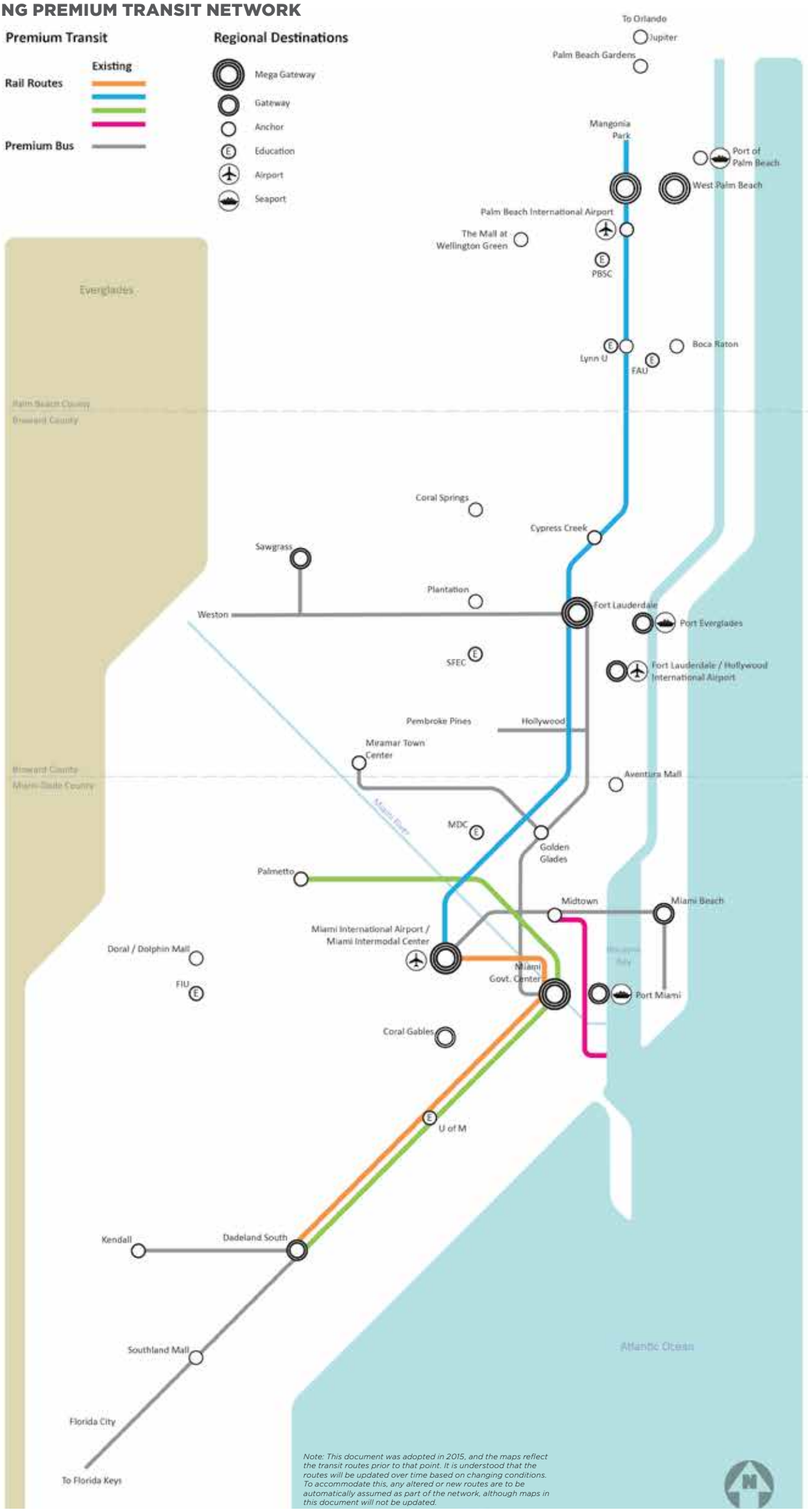
As discussed in Section 1, we have concentrations of populations of all four categories throughout the region. A great asset in our region is its diversity, with many of our residents and tourists coming from different countries. Many of those who come here from other countries are accustomed to robust transit systems and are willing to use transit here. The aging population may not have the means to own a car or may not be able to drive, and their numbers are growing. Similarly, Millennials expect high quality and convenient public transportation. Finally, the low income population offers tremendous opportunities to offer transit service to a highly transit dependent market. This service is essential to provide access to jobs, shopping, medical care, and recreational activities.

Across the three counties, there are a number of corridors connecting nodes of areas with a high concentration of low income population, including:

- US 1
- SR 7/US 441 (Miami-Dade and Broward Counties)
- NW 27th Avenue/University Drive (Miami-Dade and Broward Counties)
- Okeechobee Boulevard (Palm Beach County)
- Sunrise Boulevard and Broward Boulevard (Broward County)
- SR 80/Southern Boulevard (Palm Beach County)

These populations become the core for our future Transit Vision and define many of the services included in this plan. But they are not the only customers – public transportation must provide options for everyone.

FIGURE 13
EXISTING PREMIUM TRANSIT NETWORK



DESTINATIONS

Transit-supportive nodes of high employment density (above 30 jobs/acre) are very limited throughout the region include the downtown areas of Fort Lauderdale, Miami, Miami Beach and Palm Beach as well as the Miami International Airport area. In recent years there has been a significant increase in medium- and high-density residential development along with various entertainment venues and recreational activities, transforming many of these hubs into regional destinations. Many lesser "concentrations" of jobs are dispersed throughout the region, their commute shed impacted by limited access (roadway and transit), and the level of traffic congestion on the facilities that serve them. That, combined with the auto-oriented land uses spread throughout the region, has resulted in a low proportion of workers using transit to get to work, even in areas traditionally well-suited for transit like our Downtowns.

There are a number of other nodes throughout the region that act as major destinations and have the potential to support transit based on the populations they serve. As discussed in Section 1, the major international airports and seaports are all major activity centers for the region. Tourists are less likely to have access to a vehicle or want to drive and may be accustomed to a robust transit system. The colleges and universities also have great potential to become transit destinations. Students are great candidates for transit because they may not be able to or want to drive.

COMMUTING AND TRAVEL CHARACTERISTICS

Travel characteristics of the region are directly impacted by the factors previously described. As outlined earlier, regional commute trips tend to be long and slow; approximately half of all workers travel more than 30 minutes to work. Furthermore, the travel times are far higher for transit commuters. Traffic congestion further impacts transit travel times, increasing delay and decreasing reliability which in turns discourages use.

MISSED CONNECTIONS

Based on the existing patterns of development, travel demand, and the transit system that has developed to date, it is evident that several key connections can be considered "missed" by the current services. The most significant of these include:

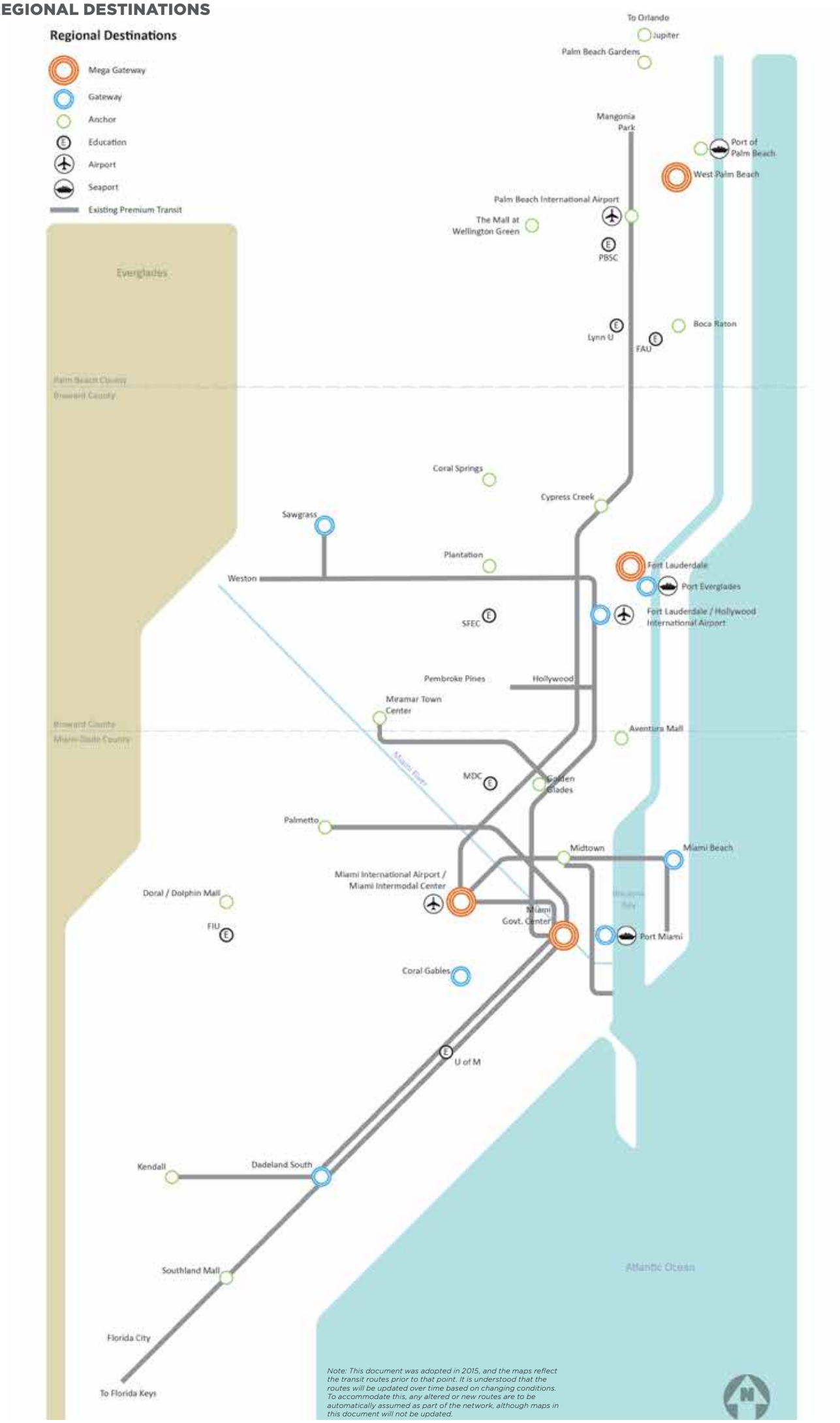
- Cross-county travel (apart from Tri-Rail, I-95 Express, and limited local bus connections)
- East-west travel of adequate frequency and competitive speed
- Direct pedestrian and bicycle access to many activity hubs and transit services

The following table and figure summarize and depict the 35 regional destinations within Southeast Florida.

TABLE 01
REGIONAL DESTINATION CLASSIFICATIONS

REGIONAL DESTINATION	COMPONENTS	LOCATION		
Mega Gateway	› Largest Central Business District per County and/or at least 25,000 employees	› Downtown West Palm Beach › Fort Lauderdale		› Miami International Airport/Miami Intermodal Center › Downtown Miami
Gateway	› At least 15,000 – 25,000 employees	› Fort Lauderdale-Hollywood International Airport › Port Everglades › Sawgrass		› Coral Gables › Miami Beach › Dadeland South › PortMiami
Anchor	› Up to 15,000 employees › Located at intersection of two regional corridors › At least 50 percent of incoming commuters travel more than 10 miles	› Jupiter › Palm Beach Gardens › Palm Beach International Airport › Port of Palm Beach › Mall at Wellington Green › Boca Raton › Coral Springs › Cypress Creek › Plantation Midtown		› Miramar Town Center › Aventura Mall › Golden Glades › Midtown Miami › Palmetto Metrorail Station › Dolphin Mall › Southland Mall › Kendall
Education	› Major educational institutions and campuses.	› South Florida Education Center › Lynn University › Florida Atlantic University › Palm Beach State College		› Miami-Dade College › Florida International University › University of Miami

FIGURE 14
REGIONAL DESTINATIONS

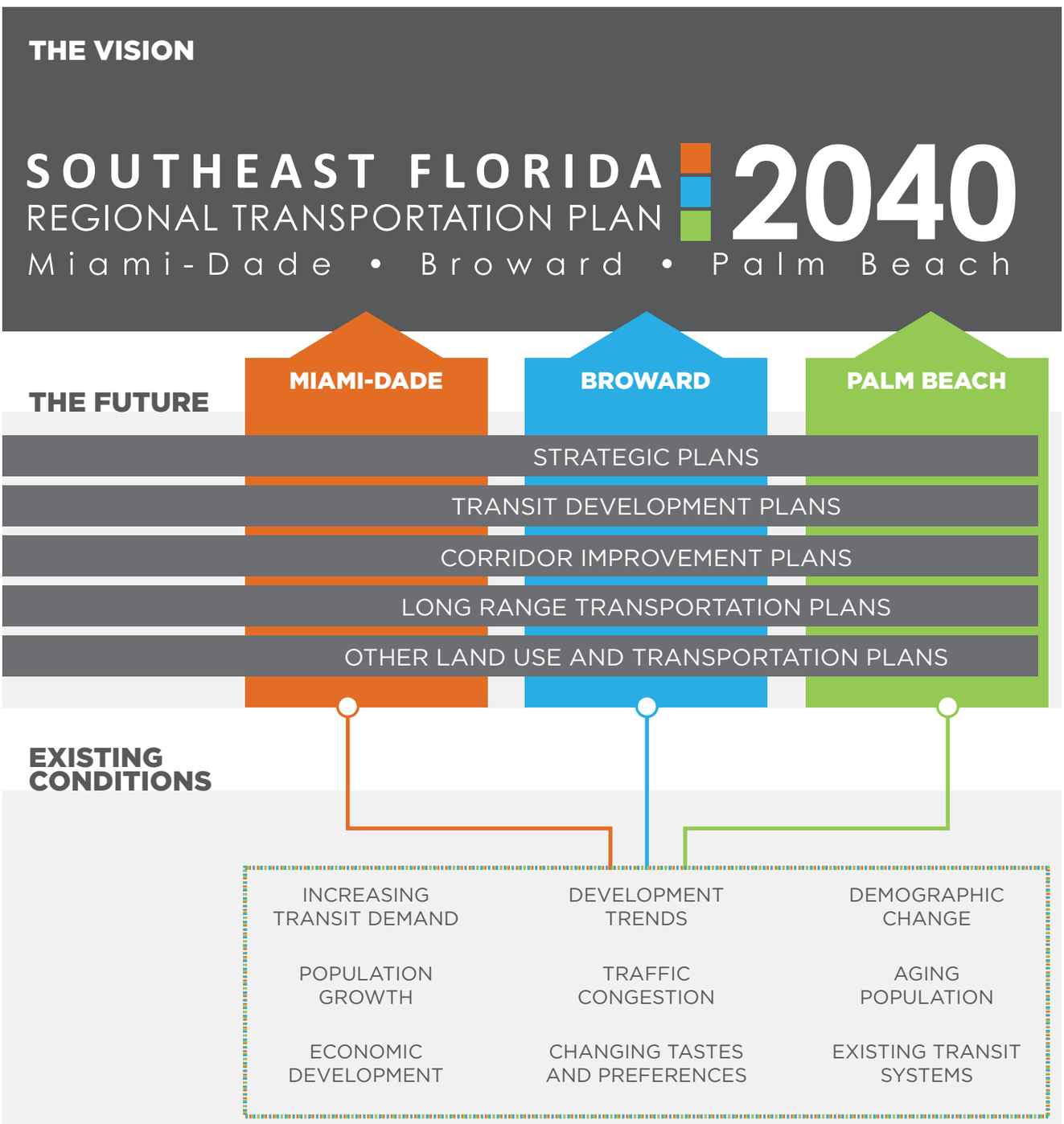


A VISION FOR BETTER TRANSIT

The Southeast Florida region's long-term economic, environmental, transportation and growth management goals depend on providing more and better public transportation. Achieving these goals will require more competitive premium transit services that support the region's activity and growth centers, making it easier and more cost-effective for people to travel through the region.

To respond to this need, the Regional Transit Vision was developed as part of the 2040 RTP. This Vision connects numerous transit and land use plans to establish a regionally integrated multimodal premium transit network. The Vision, although part of the 2040 Plan, is not time or cost constrained. The visionary network is to be used as a guide when planning for and developing regional premium transit investments. Ideally this network will maximize the opportunity for more areas to develop a sense of place where people feel safe and comfortable traveling by foot, bike or transit; for our downtowns to grow with a more vibrant, urban feel; and for more of our commercial and retail employment centers to grow into nodes that can serve as destinations as well as transfers between the regional and local transit services. Figure 15 depicts the process that was followed to develop the transit vision for the region.

FIGURE 15
TRANSIT VISION PROCESS



DEFINING FUTURE NEEDS

The conditions and plans that will shape the development of transit in the region indicate the following general trends between today and 2040.

- Downtown Miami will remain the region's primary transportation destination based upon its existing and continued residential and employment growth.
- A limited number of other destinations (Miami-Dade Airport West, Downtown Fort Lauderdale and Downtown West Palm, and Boca Raton) will intensify as employment destinations, but jobs will remain highly dispersed.
- Population will concentrate in a small number of areas such as the major urban cores of Miami, Fort Lauderdale, and West Palm Beach as well as along major corridors.
- North-south inter-county travel will use the existing highway network (I-95, Turnpike, I-75) and existing/planned transit links (Tri-Rail, Coastal Link).
- US 1 and SR 7/US 441 will remain critical inter-regional transit corridors.
- Many congested corridors have limited right-of-way for widening, either to provide additional general traffic capacity or to provide dedicated lanes for transit. The existing traffic congestion makes it difficult to dedicate an existing lane to exclusive transit use given the small percentage of travelers using transit today.
- As premium transit routes continue to be introduced, cities and counties throughout the region has moved towards setting policies encouraging transit oriented development (TOD) in key areas. Our region has also developed a focus group for TOD that will be using this vision as a guide for future development. More information on this working group is found in this chapter.

REGIONAL TRANSIT VISION WORKSHOP

PLANNED TRANSIT MODES AND TECHNOLOGIES IN SOUTHEAST FLORIDA

Various mode and technology options exist to connect our Region's destinations in the future. The following modes and technologies were considered when creating the regional plan and while they may not all be implemented, they each have potential applications in Southeast Florida. The ranges and infromation presented are high level and based on international experience, and may not reflect current local implemntation.

CIRCULATOR BUS

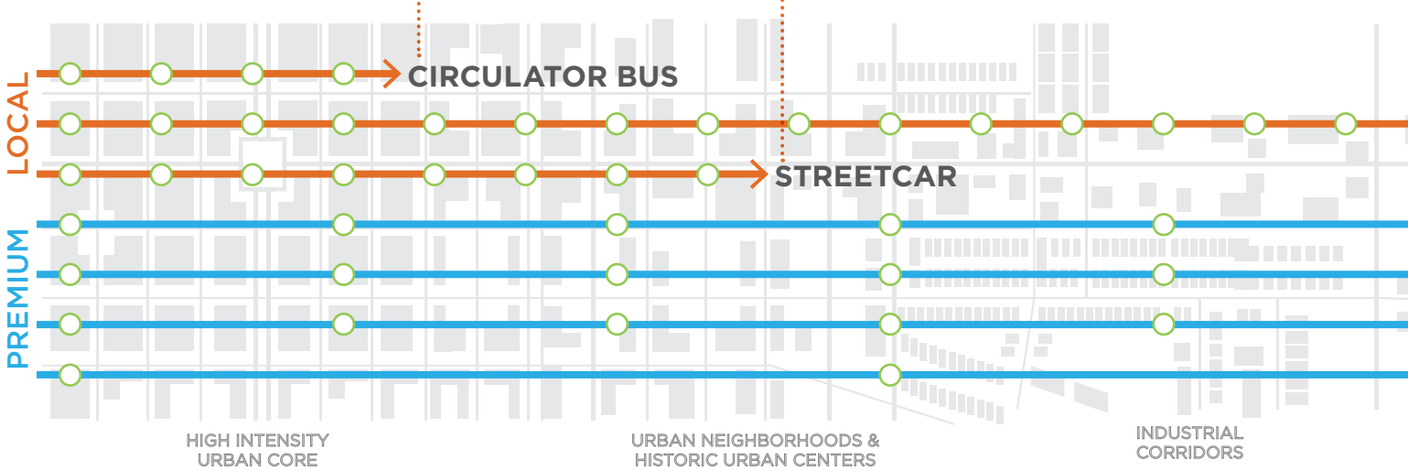
- Route Length within Defined Campuses/Downtowns
- 8 to 30 Passengers Per Vehicle
- Operated and Funded by Self-taxing Districts, Transit Agencies, Business Owners, Etc.
- Flexible or Fixed-route Service
- Flexible or Fixed-schedule Service
- Typically Curb-to-curb Service
- Can be Used to Connect to other Transit Modes- I.E. Regular City Bus, Commuter Rail, Etc.

STREETCAR

- Route Length less than 5 Miles
- Exclusive Lanes or Mixed Traffic
- Runs on Embedded Steel Rail Tracks
- Historic Trolleys or Modern Streetcar
- Typically Slower in Speeds than LRT, but Modern Streetcars are Faster than Historic Streetcar

LIGHT RAIL TRANSIT

- Route Length 5 to 25 Miles
- Electric Powered Rail Cars Propelled by Overhead Catenary Wires
- Exclusive Lanes, At-grade or Grade-separated
- Dedicated Stations; Off-vehicle Ticketing
- Steel Rail Tracks, Can Run within Road Row



RAPID/ENHANCED BUS AND EXPRESS BUS

- Route Length Varies
- Up to 120 Passengers Per Vehicle
- Branded Service
- Runs In Mixed Traffic
- Fewer Stops; Farther Apart
- May Have Enhanced Stations and/or Transit Signal Priority
- Regular Buses or Larger Buses
- Peak Periods or All-day Service

LOCAL BUS

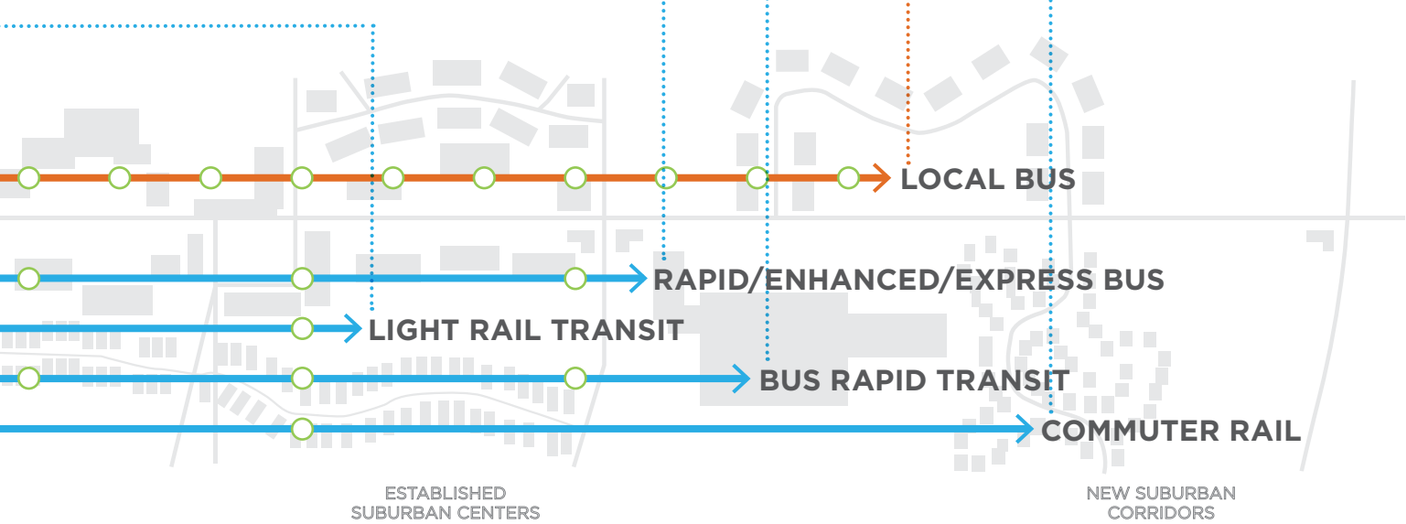
- Route Length Varies
- 40 to 75 Passengers Per Vehicle
- Most Common Type of Transit in Southeast Florida
- Generally a Mix of Federal and Local Funding
- Fixed-route & Fixed-schedule

BUS RAPID TRANSIT

- Route Length Varies
- Operates Like Rail
- Some Portion in Exclusive Lanes and Some in Mixed Traffic
- Enhanced Stations & Ticketing
- Transit Signal Priority
- Modern Vehicle Design, but Rubber Tire Vehicles

COMMUTER RAIL

- Route Length 5 to 60 Miles
- Exclusive Lanes
- Diesel Powered Locomotives
- Longer Distance, “Commuting” Travel
- Can Cross Streets but Typically Separated from Roadway Row
- Typically Shares or Uses Freight Corridors



REGIONAL TRANSIT VISION

The transit vision, shown on the right, was created as a guide for the planning and development of future transit in the Southeast Florida region. It aims to improve inter-county and longer distance services to transit dependent people as well as visitors and other non-traditional commuter markets, fully integrating local and regional services. This integration promotes the destination-based approach, to provide faster and more user-friendly transit service connecting regional employment, activity, and educational centers and high density areas throughout the region, regardless of jurisdiction. For detailed information on the routes delineated in the transit vision, please see the Regional Transit System Master Plan technical memorandum.

Developed in close coordination with stakeholders, the plan represents a cohesive strategy that addresses the regional transit needs of Southeast Florida. Through improved connections and enhanced transit services, various sectors of the population are provided a regional transit system that is well connected, accessible, and convenient. The comprehensive system of premium bus service (e.g., Express and Rapid Bus, Limited Service) links major educational, recreational, tourism, business, and entertainment destinations.

While the Southeast Florida Transit Vision is intended to provide a blueprint for a transformed future for users of public transportation, it is not time- or budget-constrained. Federal law requires each MPO in the country to adopt a financially constrained plan for their 25+ year planning horizon. The three Southeast Florida MPO's adopted their 2040 Long Range Transportation Plans in 2014. Each MPO used the transit vision to guide the identification of their 2040 transit investments. The regional transit projects within these MPO financially constrained plans collectively form the comprehensive list of cost-affordable regional transit projects as shown in Section 12.

The unfunded transit projects within the MPO LRTPs collectively form the regional unfunded transit needs project list identified in Section 10. These unfunded regional transit needs were prioritized as part of the 2040 RTP and can be seen in priority order in Section 13.

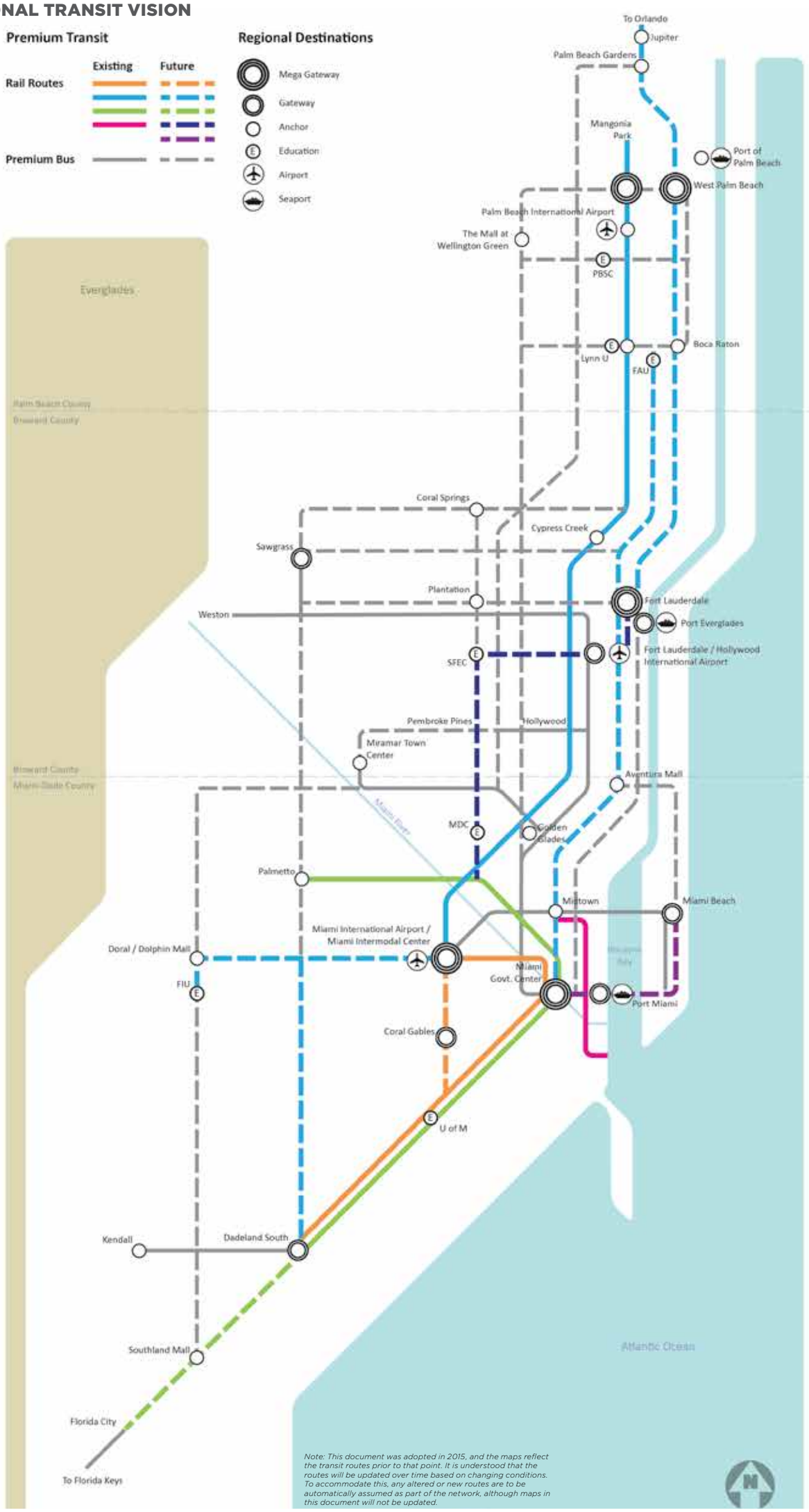
SAMPLING OF TRANSIT VISION PROJECTS

EXPRESS BUS PROJECTS

MIAMI-DADE METRORAIL EXPANSION

THE FORT LAUDERDALE WAVE STREETCAR

FIGURE 16
REGIONAL TRANSIT VISION



REGIONAL TRANSIT SYSTEM VISION STATISTICS

The regional transit system vision includes close to 13.4 million annual revenue miles across the 24 routes, providing convenient and seamless travel across the counties. The network addresses the need of the population and connects the land uses via three modes.

REGIONAL EXPRESS BUS - 944,000 ANNUAL REVENUE-MI
OF LIMITED SERVICE BUS ROUTE ON EXPRESSWAY

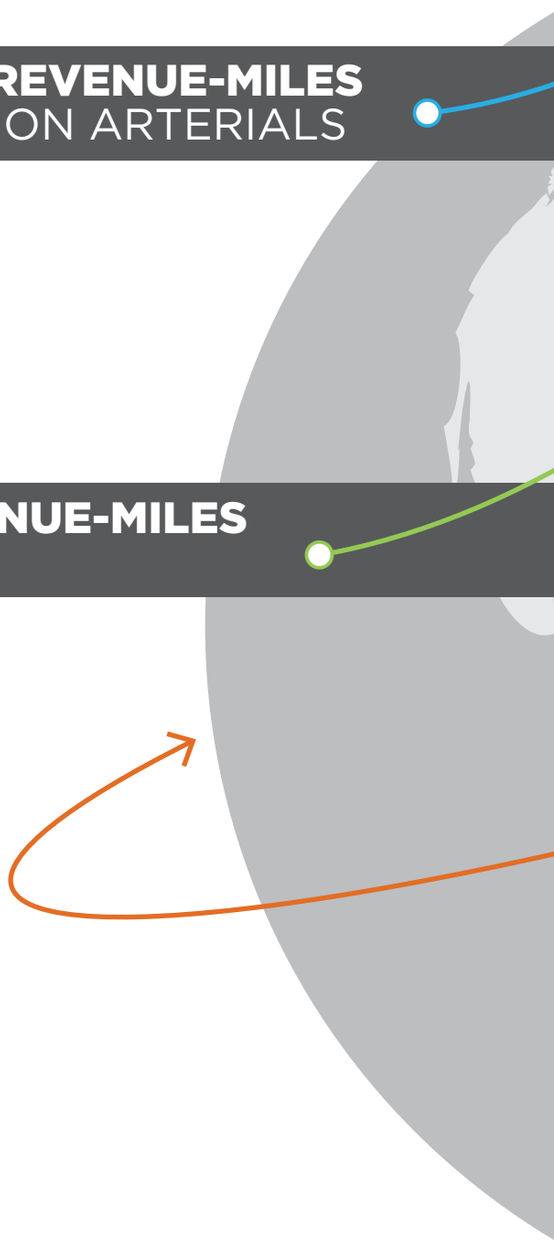
EQUIVALENT TO
AROUND THE EARTH
38 TIMES

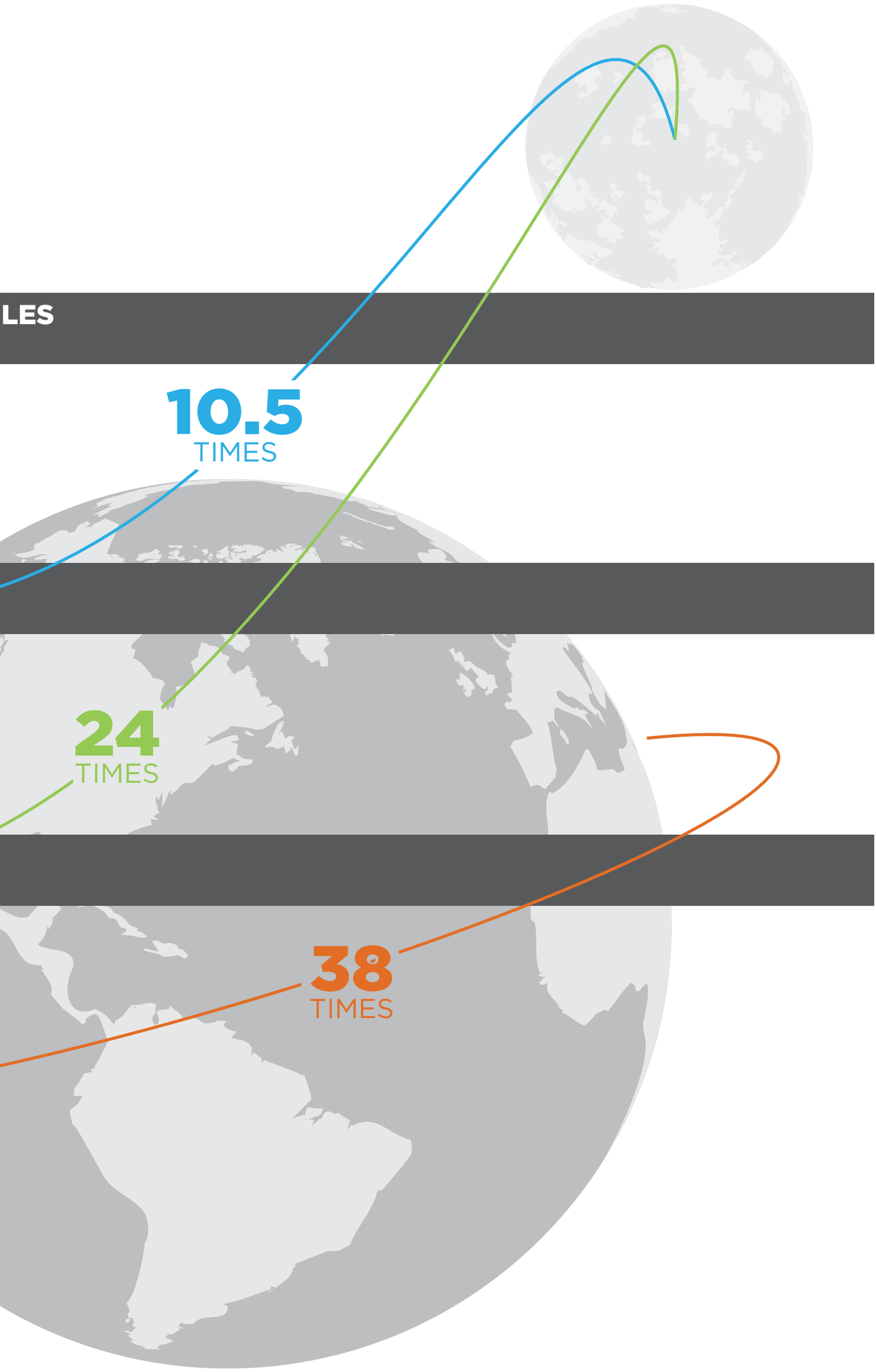
RAPID BUS - 2,500,000 ANNUAL REVENUE-MILES
OF LIMITED SERVICE BUS ROUTES ON ARTERIALS

EQUIVALENT FROM
EARTH TO THE MOON
10.5 TIMES

RAIL - 10,000,000 ANNUAL REVENUE-MILES
OF AT-GRADE RAIL SERVICE

EQUIVALENT FROM
EARTH TO THE MOON
24 TIMES




LES
10.5
TIMES
24
TIMES
38
TIMES

PARK-AND-RIDE SYSTEM

Although our region aims for the type of compact development that is supportive of transit, we have traditionally developed in a suburban pattern. In the future, growth will be targeted in compact nodes and along transit corridors. However, other areas will remain more suburban or even rural in nature based on demand and local desires. That being said, the regional transit system can still serve those areas through key park-and-ride access transit stations that connect into the larger network.

Existing park-and-ride facilities throughout Southeast Florida have demonstrated the success of this strategy locally, and will continue to be a key element of the network as the 2040 plan extends the existing network and adds or enhances north-south and east-west services in western and northern sections of the tri-county area. Some transit riders will be able to walk or bicycle to a nearby station, but others will be driven by others or drive themselves, parking a vehicle at the station.

In coordination with the Regional Transportation Plan, a park and ride pilot study was performed to analyze travel patterns for eight centers of activity located throughout the region that are projected to generate a large number of transit trips in the future.

The analysis considered existing and proposed park-and-ride projects from the three individual MPO long range transportation cost feasible plans, and identified additional facilities to support the regional transit connections as can be seen in Figure 17.

As the region continues to grow, additional park and ride lots will be identified. Future steps will evaluate how these potential lots can be best incorporated and consolidated into a comprehensive system of lots and transit/ rideshare services.

Any recommendations that arise from this pilot study will need to be closely coordinated with agencies across the region.

FIGURE 17
PARK AND RIDE LOCATIONS

THE ROLE OF TRANSIT ORIENTED DEVELOPMENT

WHAT IS TRANSIT ORIENTED DEVELOPMENT?

TODs are compact, moderate to high intensity and density, mixed use areas within walking distance of a transit stop or station. TODs are designed to maximize access to transit. They include pedestrian-oriented streetscapes and urban form that promote walking trips to stations and varied other uses within station areas. Not all TODs are alike. TODs have different characteristics based on levels of activity within the station area, the type of transit, and the community context.

TODS ARE CENTERED AROUND TRANSIT STATIONS THAT CONNECT WITH TRANSIT CORRIDORS, WHICH TOGETHER FORM A TRANSIT SYSTEM. PLANNING FOR TOD OCCURS AT ALL THREE LEVELS.

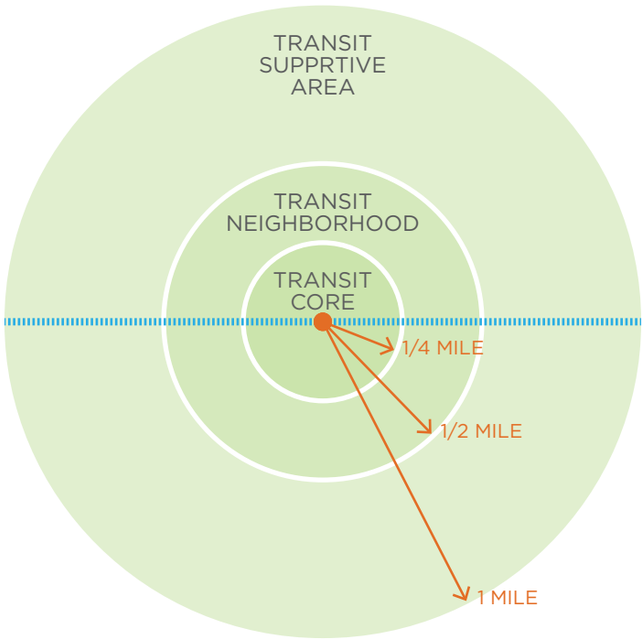
One-quarter mile and one-half mile distances represent a 5 to 10 minute walkshed, which is the amount of time most people are willing to walk to a destination. The most intense and dense development is typically located within the one-quarter mile radius (transit core). Intensities and densities gradually decrease out to the one-half mile radius (transit neighborhood) and the one mile radius (transit supportive area).

WHY IS TOD IMPORTANT TO SOUTHEAST FLORIDA?

TOD is a cross-cutting mechanism for achieving the region's goals, and is an integral element of many agencies' plans. Amidst development pressures from residential population and tourism growth, TOD can support Southeast Florida's vibrant economy and attractive quality of life by ensuring that residents and visitors have access to opportunities for employment, education, social interaction, and recreation, and can fulfill their daily needs.

TOD helps reinforce the regional transit vision, brings employment opportunities closer to residents, supports a range of healthy lifestyle choices for multiple generations, and generates return on investment through lease payments, taxes and increased ridership.

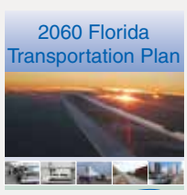
FIGURE 18
TOD EFFECTIVE DISTANCE

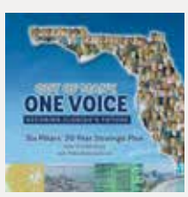


Source: A Framework for TOD in Florida

TOD IS A COMMON THREAD THROUGHOUT THE REGION'S VARIOUS PLANNING EFFORTS

GUIDING VISIONS





INDIVIDUAL AGENCY PLANS

LOCAL GOVERNMENTS' COMPREHENSIVE PLANS

REGIONAL PLANNING COUNCILS' ECONOMIC DEVELOPMENT PLANS

MPOs' LONG RANGE TRANSPORTATION PLANS

TRANSIT AGENCIES' TRANSIT DEVELOPMENT PLANS

SUCCESSFUL TODS IN SOUTHEAST FLORIDA

The region has already achieved notable TOD successes. Miami-Dade partners have been planning for TOD since the 1970s. Notable projects include among others:

- Naranja Urban Center
- Dadeland North
- Dadeland South
- Douglas Road
- Government Center
- Brownsville

As of 2015, TOD in Miami-Dade County includes:

- 1,109 dwelling units (168 market rate and 941 affordable housing)
- 2.4 million sq. ft. of office space
- 435k sq. ft. of retail space
- More than $3 million in annual revenue

Broward and Palm Beach Counties are planning for TOD too.

- The Broward MPO's Mobility program is funding $100 million in bicycle and pedestrian improvements over the next five years to improve connectivity to transit corridors.
- Localities have designated areas as TODs or Transit-Oriented Corridors (TOCs) in their future land use plans.
- The update of Broward County's Comprehensive Plan and future land use plan will likely result in more robust and more easily implementable policies to encourage TOD.
- Efforts are underway to implement TOD at the Cypress Creek Tri-Rail station as a follow up to the Seven50 regional planning effort.
- The City of Fort Lauderdale developed TOD Guidelines, and the Wave streetcar presents enormous opportunity for future growth.
- Plans are underway for the Transit Village development at the West Palm Beach Tri-Rail station.

Across all three counties, All Aboard Florida and Tri-Rail Coastal Link present TOD opportunities in conjunction with ongoing station area planning efforts.

NOTABLE TOD PROJECTS

NARANJA URBAN CENTER

DADELAND NORTH AND DADELAND SOUTH

DOUGLAS ROAD

GOVERNMENT CENTER

BROWNSVILLE

ALL ABOARD FLORIDA

All Aboard Florida is a planned privately funded intercity passenger rail service that will connect Miami to Orlando. When operational, it will provide significant opportunities for TOD and economic development. Below is a fact sheet prepared by All Aboard Florida that introduces the project and associated details.

ALL ABOARD FLORIDA

BUILDING ON A LEGACY & SETTING A NEW STANDARD IN PASSENGER RAIL

An express, intercity passenger rail service arriving 2017. Leveraging a 100-year-old infrastructure backbone built by Henry Flagler. The project marks the beginning of a new era in Florida's rich rail history.

A project designed to serve tourists, business travelers and Florida residents

Connecting Miami and Orlando in just under three hours, with planned stops in Fort Lauderdale and West Palm Beach.

Bringing a total of 4 million square feet of new transit oriented development around the South Florida stations.

A service projected to improve the overall commuting experience in South Florida

- Competitive Pricing
- Smart Phone & Online Ticketing
- Conveniently Located Stations
- Connectivity to Major Transportation
- Oversized Storage Space
- Bike Storage Facilities
- High Speed Internet Access

ECONOMIC IMPACT

- $6.4 billion in direct economic impact to Florida's economy over the next eight years
- $653 million in federal, state and local government tax revenue through 2021
- Over 10,000 jobs on average per year through the rail line construction (mid-2014 through mid-2017)
- Over 5,000 jobs on average per year after the rail line construction is completed through 2021

ECO-FRIENDLY

- Up to 3 million vehicles removed from the roads each year
- Significant reduction in greenhouse gas emissions and fuel consumption
- Leveraging the existing corridor means minimal impact to natural resources

STATE-OF-THE-ART TRAINS & STATIONS

- Best-in-class innovation and technology by Siemens
- Designed to optimize passenger time and comfort with on-board amenities such as Wi-Fi
- Just as fast as flying but easier and more convenient
- A time savings of 25-30% vs. existing travel options

- Approximately 900' long
- Much lighter, quicker than the freight trains that operate in the corridor

- **FOUR STATIONS:** Miami, Fort Lauderdale, West Palm Beach and Orlando International Airport
- Intermodal connectivity at each station
- Nearby access to retail, dining, hotel and attractions

SERVICE SCHEDULE & PRODUCT OFFERING

- 16 northbound and 16 southbound trains daily
- Service starting in the early morning and ending in the evening
- Competitively priced against other transportation options
- Specific timetables and pricing will be published closer to the operational service in late 2017

THE DEMAND

- Alternative way to move both residents and tourists throughout the state
- A transportation infrastructure to support growing population in Florida, now the third most populated state in the nation
- 100+ million visitors to the state (projected)
- 500 million trips annually between Central and South Florida
- Relief for Florida's congested roadways

PROJECT FINANCING

- Privately owned and operated company—Financing through a mix of debt and equity
- No state or federal grant money requested
- No ongoing taxpayer subsidies required

GRADE CROSSINGS

- All grade crossings examined to determine planned upgrades
- Safety measures to meet highest applicable standards set by FRA and FDOT
- Wait time at crossings is less than 60 seconds


DOWNTOWN WEST PALM BEACH


DOWNTOWN FORT LAUDERDALE


DOWNTOWN MIAMI

ALL ABOARD FLORIDA PROGRESS TO DATE

- Engineering and environmental reviews finalized
- Infrastructure agreements obtained
- Meetings with more than 650 officials, business and civic groups
- Acquired all necessary properties and land
- Siemens Corporation manufacturing the trains in Sacramento, California
- Archer Western upgrading rail infrastructure along corridor
- FRA issued a Finding of No Significant Impact for Miami-to-West Palm Beach segment (2013)

Support All Aboard Florida! Get informed, stay involved and get ready for the train!

Sign up to receive updates at www.AllAboardFlorida.com

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ALL ABOARD FLORIDA

TRI-RAIL COASTAL LINK

SFRTA, FDOT, and regional partners are in the process of planning the Tri-Rail Coastal Link, which will run from Jupiter to Miami, connecting the coastal downtowns throughout the region. This project is also being closely coordinated with All Aboard Florida.

Tri-Rail Coastal Link

Miami-Dade

Broward

Palm Beach

A strategic investment for Southeast Florida and has the ability to enhance the long-term competitive position of our region.

A regional partnership dedicated to reintroducing passenger rail service to the historic downtowns of South Florida along the Florida East Coast (FEC) Rail Corridor.

A project generating an extensive range of benefits that goes beyond the direct impacts of any individual project.

The Coastal Link service will:

- Spur Economic Development
- Create Jobs
- Improve Regional Access and Mobility
- Providing opportunities for Transit-Oriented Development.

A public investment where partners are working diligently together to make the Coastal Link service a reality in South Florida.

- South Florida Regional Transportation Authority
- Florida Department of Transportation
- Southeast Florida Transportation Council
- Miami-Dade, Broward and Palm Beach Metropolitan Planning Organizations
- South Florida and Treasure Coast Regional Planning Councils

What the Region Must do to Realize the Benefit

To realize the regional economic benefit, however, the transit system must have the following key attributes:

- The quality of the train experience must be high enough that people are willing to leave the comfort of their automobiles.
- There must be significant time savings realized by taking the commuter rail train over driving.
- In less developed areas, there must be parking available at the station sites.

Seizing the TOD Opportunity

The proposed station locations for the Tri-Rail Coastal Link vary significantly in character, creating unique attributes and market potential for TOD. Fixed-guideway transit has significantly greater potential over bus transit to catalyze development because it is seen as a permanent investment in a corridor.

Visit http://tri-railcoastallink.com/ for more information on these stations.

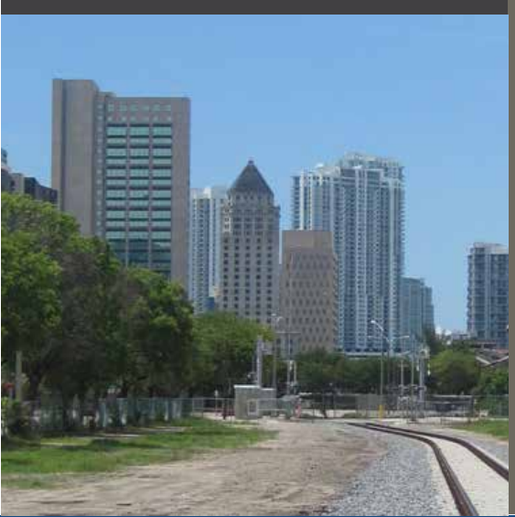
Market and Economic Analysis

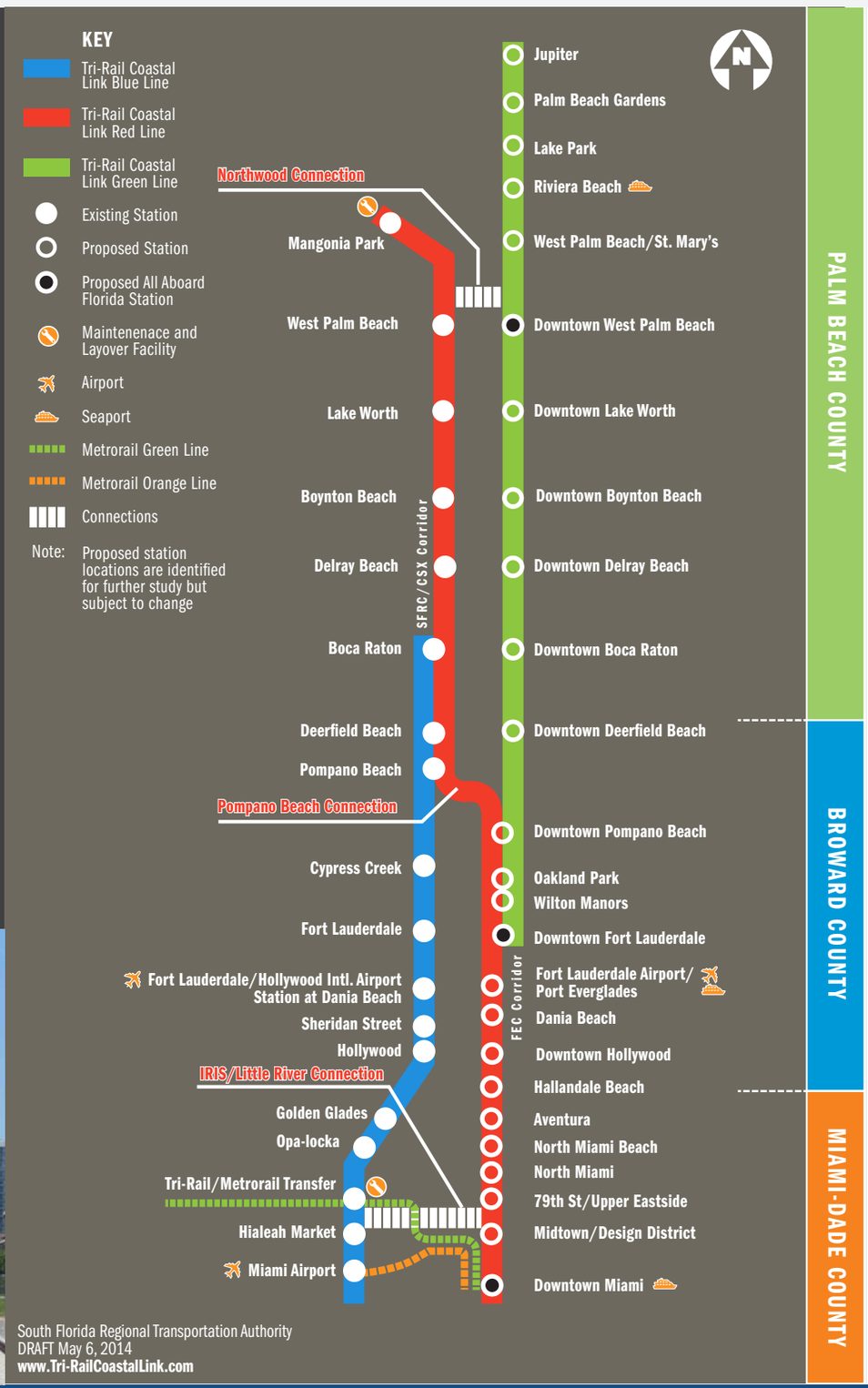
The Tri-Rail Coastal Link station locations have an incremental value —based on development and unit values— of approximately $1.4 Billion, which equates to approximately 5,500 new residential units and 8.3 Million additional square feet of commercial development. The new service is also estimating approximately 28,000 new jobs for the region.

Visit http://tri-railcoastallink.com/ for more information on the Market and Economic Analysis of the study.

Tri-Rail Coastal Link Fast Facts

- Commuter Passenger Rail – 25+ round-trip trains per day
- Serves Commuters and Local Travelers
- Service from Miami to Jupiter
- 85 Miles with Potential for Phased Implementation
- Fully Integrated Extension of Tri-Rail System
- Will Share Existing and New Tracks with FEC Freight and All Aboard Florida service
- Station Spacing at 2-5 Miles
- 20-25 New Stations Linking Dozens of Municipalities and Major Destinations
- Mix of Public Funding Sources to be Pursued
- Extensive Economic Development
- Downtown Miami Link Approved





Estimated Travel Times

- Palm Beach Gardens to West Palm Beach: 15 min
- West Palm Beach to Downtown Delray Beach: 22 min
- Boca Raton to Fort Lauderdale: 34 min
- Fort Lauderdale to Hollywood: 14 min
- FLL Airport to Downtown Miami: 45 min
- Aventura to Downtown Miami: 29 min
- Midtown to Downtown Miami: 7 min

Project Contact Information:

http://tri-railcoastallink.com/#

3400 West Commercial Blvd.
Fort Lauderdale, FL 33309

Telephone: 954.777.4091
TollFree: 1.866.336.8435


RIDE
NOW
DECOBIKE
DECOBIKE
KISS
BYE

SECTION

7

MOVING BY FOOT, BY BIKE

As one of the most dangerous places in the country for pedestrians and bicyclists, the entire region is focused on improving safety, accessibility, and comfort in the non-motorized realm. As more and more people begin to desire a walkable environment, we need to not only improve upon our pedestrian and bicycle environment but move to the forefront of design to maintain and enhance our position as an international transportation, tourism, and economic hub.

A well connected and safe pedestrian and bicycle network is a key ingredient for a successful transit system. With this in mind, this effort was coordinated with the agencies in the region so that last mile investments can be better informed from a regional perspective.

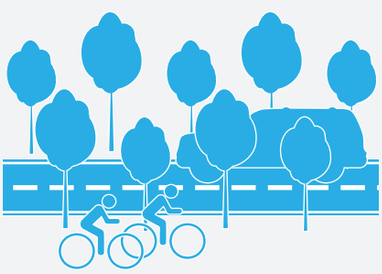
POLICIES GUIDING OUR DECISIONS

The non-motorized transportation system develops over time through partnerships. Policies and investments at all levels of government work in concert to serve a variety of users with varying needs and abilities. Local investments expand the reach of regional infrastructure. For example, the design and availability of sidewalks directly impacts the function and reach of transit and multiuse regional trails. In building a regional system, consistency and legibility for the users are critical to promoting walking and cycling. Therefore, a regional level review was conducted for over 20 policy documents and design guidelines to highlight similarities and differences in the policies, measures of effectiveness, and design standards for pedestrian and bicycle facilities in Broward, Palm Beach, and Miami-Dade Counties.

In general, there were some noticeable trends found through the review:

› EMPHASIS ON RECREATIONAL SYSTEM VERSUS COMMUTER SYSTEM VARIES BY COUNTY

Palm Beach County focuses investments in urban areas near trip generators, high crash areas, as well as on completing the greenway network. Miami-Dade County focuses significantly on completing a greenways network.



› BICYCLE FACILITY AND ROADWAY DESIGN STANDARDS

With the adoption of the Complete Streets Guidelines, Broward County has embraced the perspective of streets as public spaces, safe and comfortable for all modes of travel. The Guidelines emphasize lower travel speeds and integrate transportation and land use solutions to create a more livable environment. The Complete Streets Guidelines also include a variety of new bicycle facilities, from bicycle boulevards to cycle tracks. The Complete Streets Guidelines recommend bicycle lanes of 6 feet in width along some roadways, which is wider than the standard bicycle lanes adopted by Palm Beach or Miami-Dade Counties.

› MEASURES OF EFFECTIVENESS

Measures of effectiveness are critical in defining need and allocating resources as well as to evaluate whether investments made are delivering expected outcomes. Without measures of effectiveness and common standards, it is not possible to define deficiencies and funding shortfalls. The counties differ in adopted bicycle LOS standards, with Palm Beach County adopting LOS “C” on priority roadways while Miami-Dade County has not stated an adopted bicycle LOS standard.

EMPHASIS AREAS

When considering pedestrian and bicycle mobility in Southeast Florida, there are two primary areas that demand attention: connectivity and safety. Connectivity encompasses, among other things, last mile areas. Safety addresses areas where there are high frequencies of pedestrian-cyclist crashes.

THE LAST MILE

The Last Mile is a term used to describe the journey between a transportation hub (such as a bus depot or railway station) and the final destination. It is in the last mile that every trip becomes a pedestrian or bicycle trip, and infrastructure is necessary to support the regional transportation system. By providing safe, inviting, and direct multimodal connections to transit and urban centers, transit ridership is supported and the overall desirability of an area improves. New programs like car sharing and bike sharing are popping up throughout the region to address this. However, improvements like continuous, unimpeded sidewalks; landscaping and other buffers; well-marked and frequent pedestrian crossings; and appropriate bicycle facilities provide the fundamental infrastructure needed to ensure accessibility and desirability for pedestrians and bicyclists.

Last mile areas in Southeast Florida include major employment centers and central business districts; recreational areas; colleges and other large educational institutions; major tourist attractions; and areas where a high demand for non-motorized transportation may exist. The final criterion takes into account social and demographic characteristics of areas to determine where it is likely that people may not be able to drive or may choose not to drive. These characteristics include areas with high population density; high concentration of children or seniors; high population of racial and ethnic minorities; concentrations of poverty; and high numbers of households without access to a vehicle.

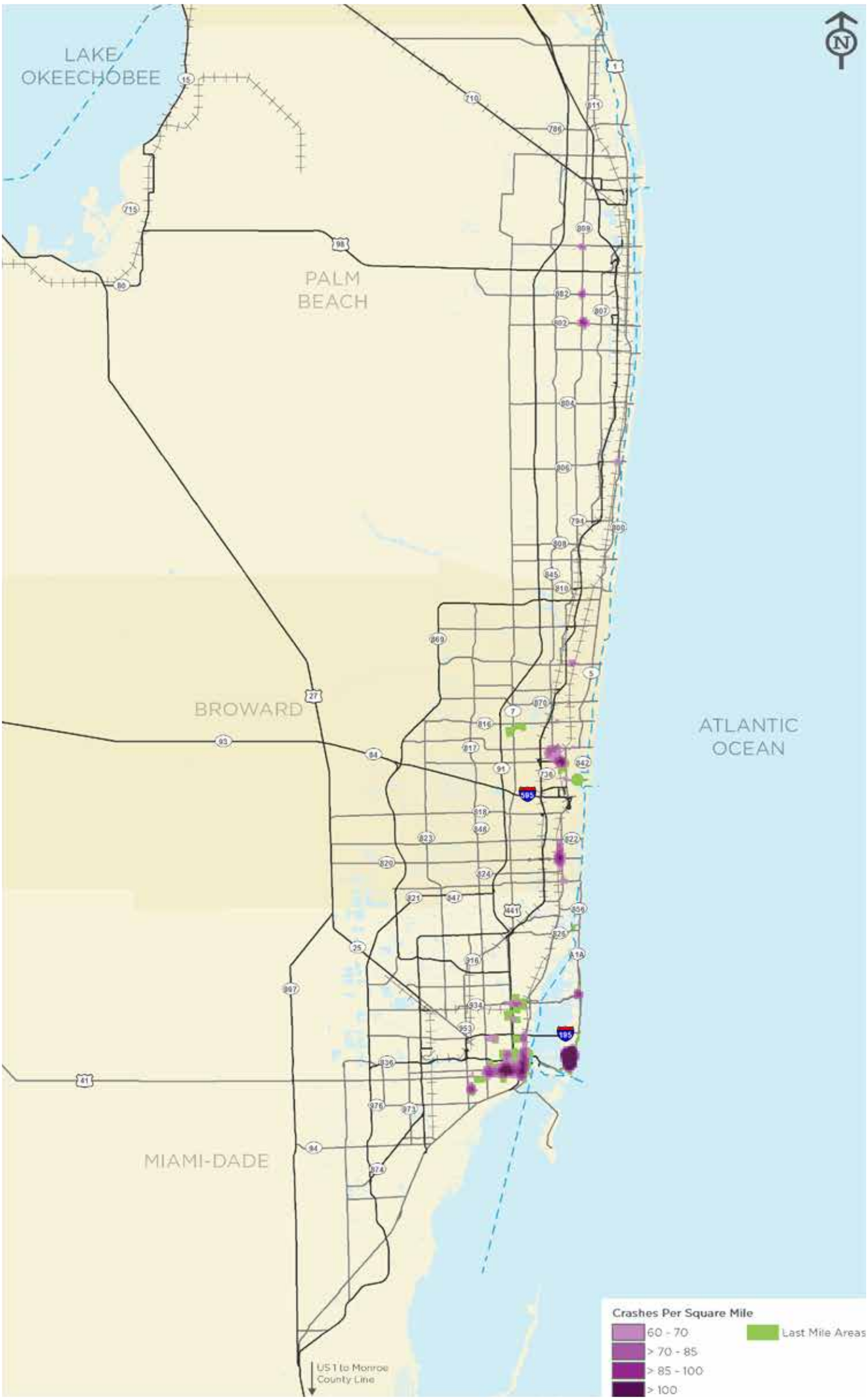
SAFETY AND COMFORT

Safety and comfort play a large role in the demand for non-motorized travel. To increase walking, biking, and transit use, safety issues must be understood and addressed. A standard measure of pedestrian and bicycle safety is the fatality rate per 100,000 residents. The 2011 Florida pedestrian fatality rates were nearly double the national average and bicycle fatality rates were nearly triple the national average. Based on the National Highway Traffic Safety Administration (NHTSA) Traffic Safety Facts reports, Florida had the highest pedestrian fatality rate among all states in 2011, 2.60 pedestrian fatalities per 100,000 persons.

In order to address the safety issues, areas with high numbers of pedestrian and bicycle crashes were analyzed using pedestrian and bicycle crash data from 2008 to 2012 and compared to the state and national data. It was found that pedestrian and bicycle crashes were over represented on local roads as opposed to state and federal roads, with 45 percent occurring on local streets. This implies that local roadway design guidelines can have significant effects on pedestrian and bicycle safety. Furthermore, relatively cost effective, relatively low vehicular capacity impacting projects such as roadway geometry at intersections, traffic calming, pedestrian crossings, signage, and lighting may have significant impacts on safety. It further implies that the Counties can move quickly to direct investments into high crash areas.

In order to move towards short-term implementation, the Last Mile areas in the region were prioritized by county based on pedestrian and bicycle safety in the last five years. Areas with greater numbers of pedestrian and bicycle crashes were prioritized the highest. The evaluation and findings were shared with the three MPOs for their consideration in the planning efforts.

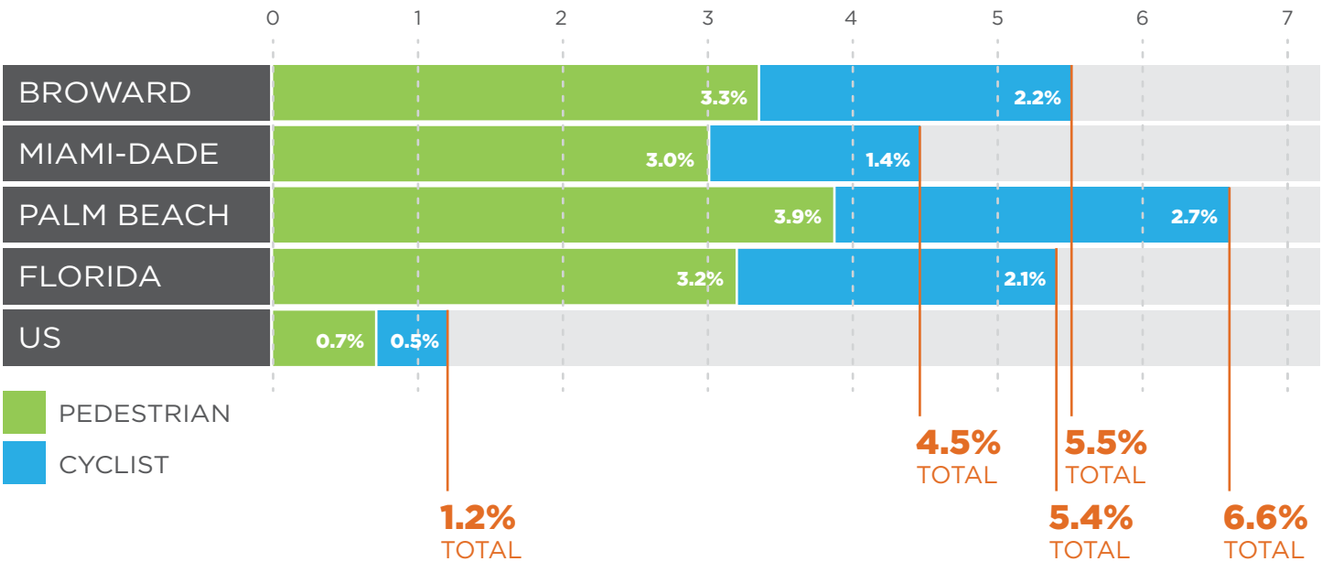
FIGURE 19
CRITICAL PRIORITY AREAS



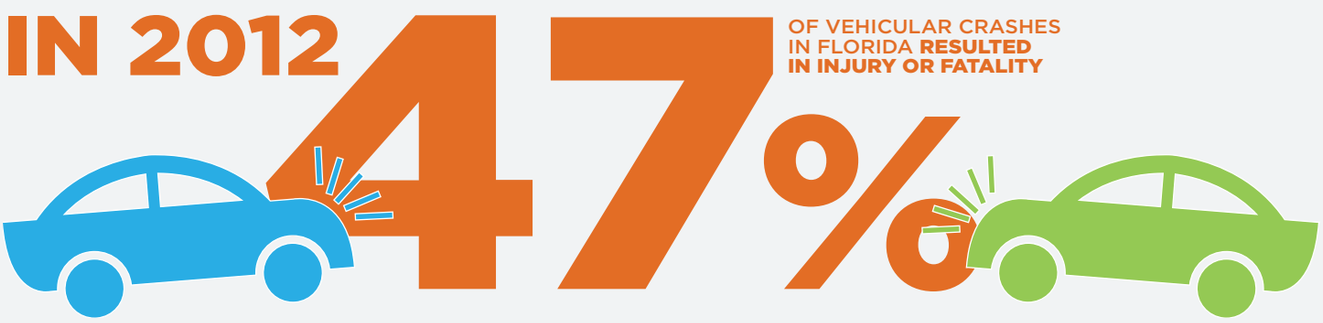
LINK TO FUNDING

Currently, pedestrian and cyclists make up a small share of the region's travel method, however they are involved a disproportionate amount of the crashes and fatalities in the region. Furthermore, funding for pedestrian and cyclist improvements makes up only a small amount of total funding for transportation improvements, with most of that funding going towards auto-related enhancements. The following spread illustrates this disparity through a series of infographics discussing crash and funding statistics at the local, state, and federal levels.

TABLE 02
PERCENT OF VEHICLE CRASHES INVOLVING CYCLISTS AND PEDESTRIANS BETWEEN 2008 AND 2012 FOR BROWARD, PALM BEACH, AND MIAMI-DADE COUNTIES



Source: for Broward, Miami-Dade and Palm Beach: Average for 2020-2012 DHSMV 2012 Crash Facts Report; Florida: Average for 2010-2011 Florida Department of Highway Safety and Motor Vehicles; US: 2009 US Census Transportation: Motor Vehicle Accidents and Fatalities and NHTSA



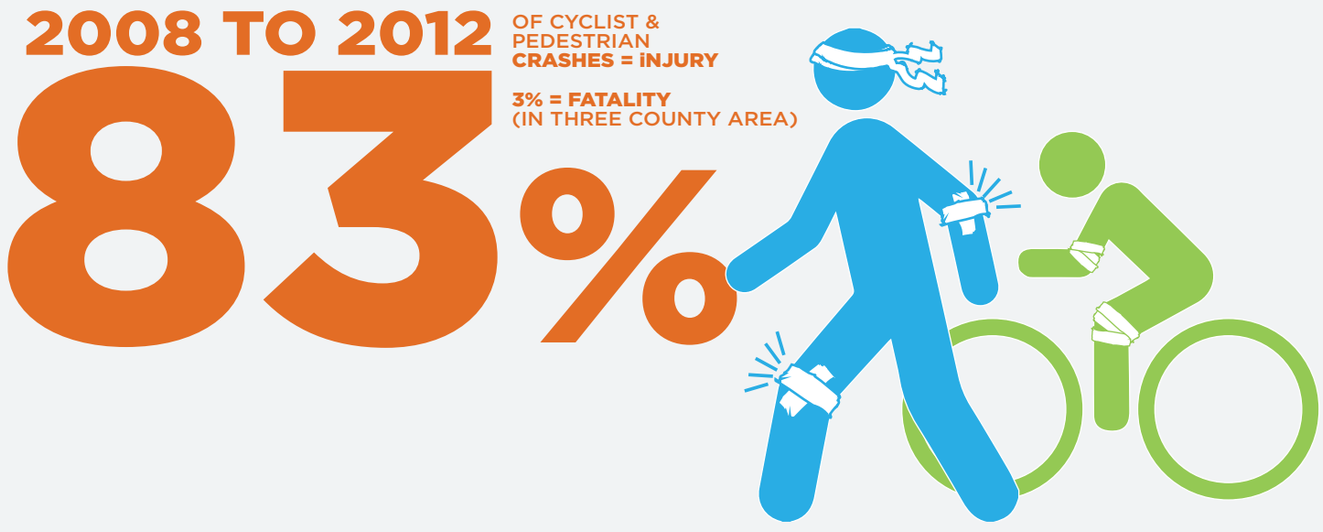


TABLE 03
PERCENT OF ALL VEHICULAR FATALITIES THAT ARE CYCLISTS OR PEDESTRIAN FATALITIES

REGION	PERCENT OF ALL VEHICULAR FATALITIES THAT ARE CYCLIST OR PEDESTRIAN FATALITIES
Nationally	12% (Pedestrians only)
Florida 2010-2012	24.5%
Broward, Palm Beach, Miami-Dade Counties 2010-2012	26.3%

Source: Dangerous by Design 2011, Signal Four Analysis Database

TABLE 04
NATIONAL PEDESTRIAN AND BICYCLE FATALITY RATES COMPARED TO FEDERAL AID HIGHWAY FUNDS DEDICATED TO PEDESTRIAN AND BICYCLE INFRASTRUCTURE

PEDESTRIAN FATALITIES 2012		BICYCLE FATALITIES 2012		FEDERAL AID HIGHWAY FUNDS 2013 SPENT ON BICYCLE AND PEDESTRIAN ENHANCEMENTS	
Number	**% of Fatalities**	**Number**	**% of Fatalities**	**Number**	**% of Total Federal Spending on Bicycle & Pedestrian Enhancements**
4,743	14%	726	2%	$676.2 Million	2%

Source: FHWA

BICYCLISTS AND PEDESTRIAN FATALITIES VS. FEDERAL SPENDING ON BICYCLE AND PEDESTRIAN IMPROVEMENTS

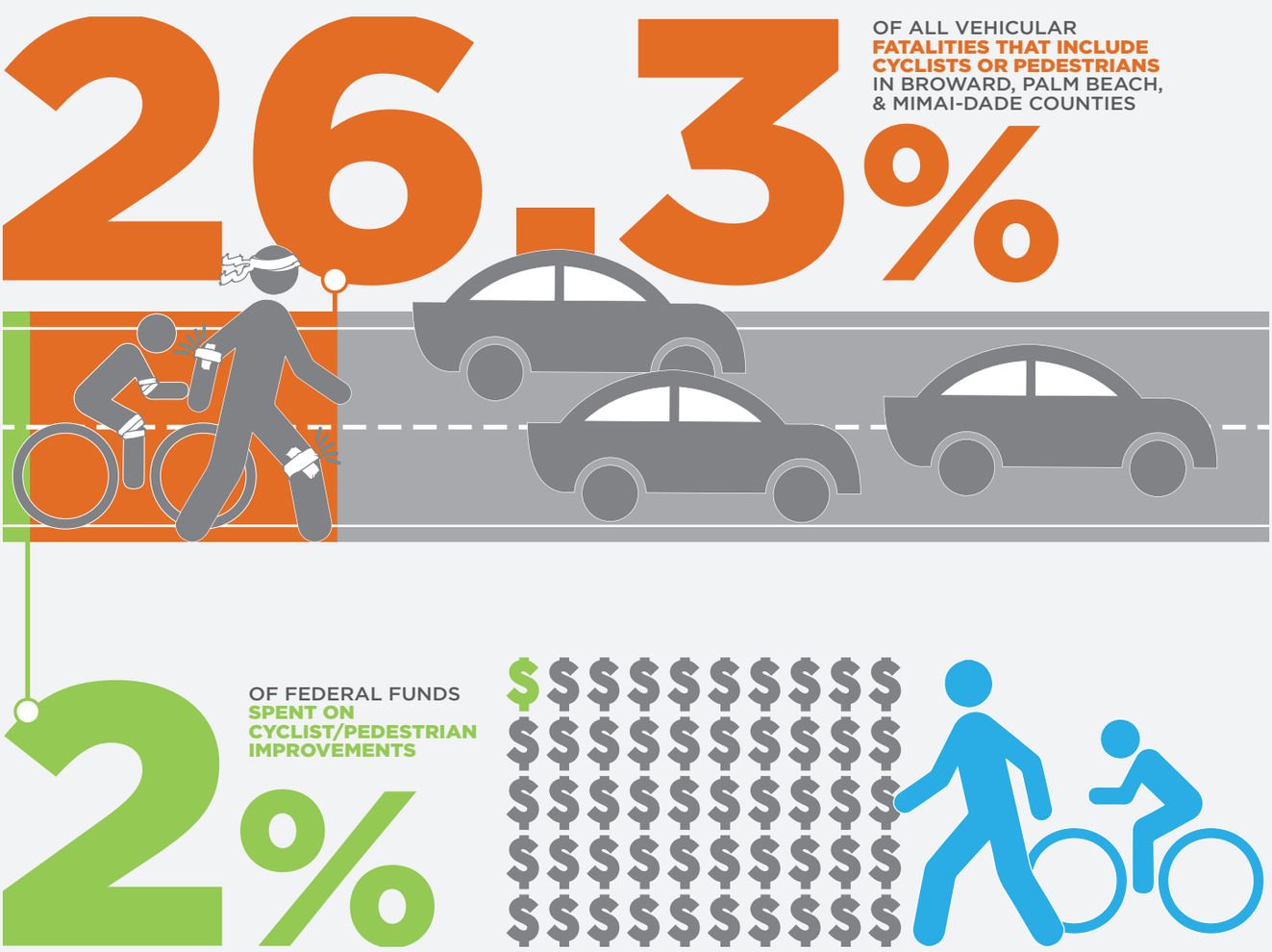
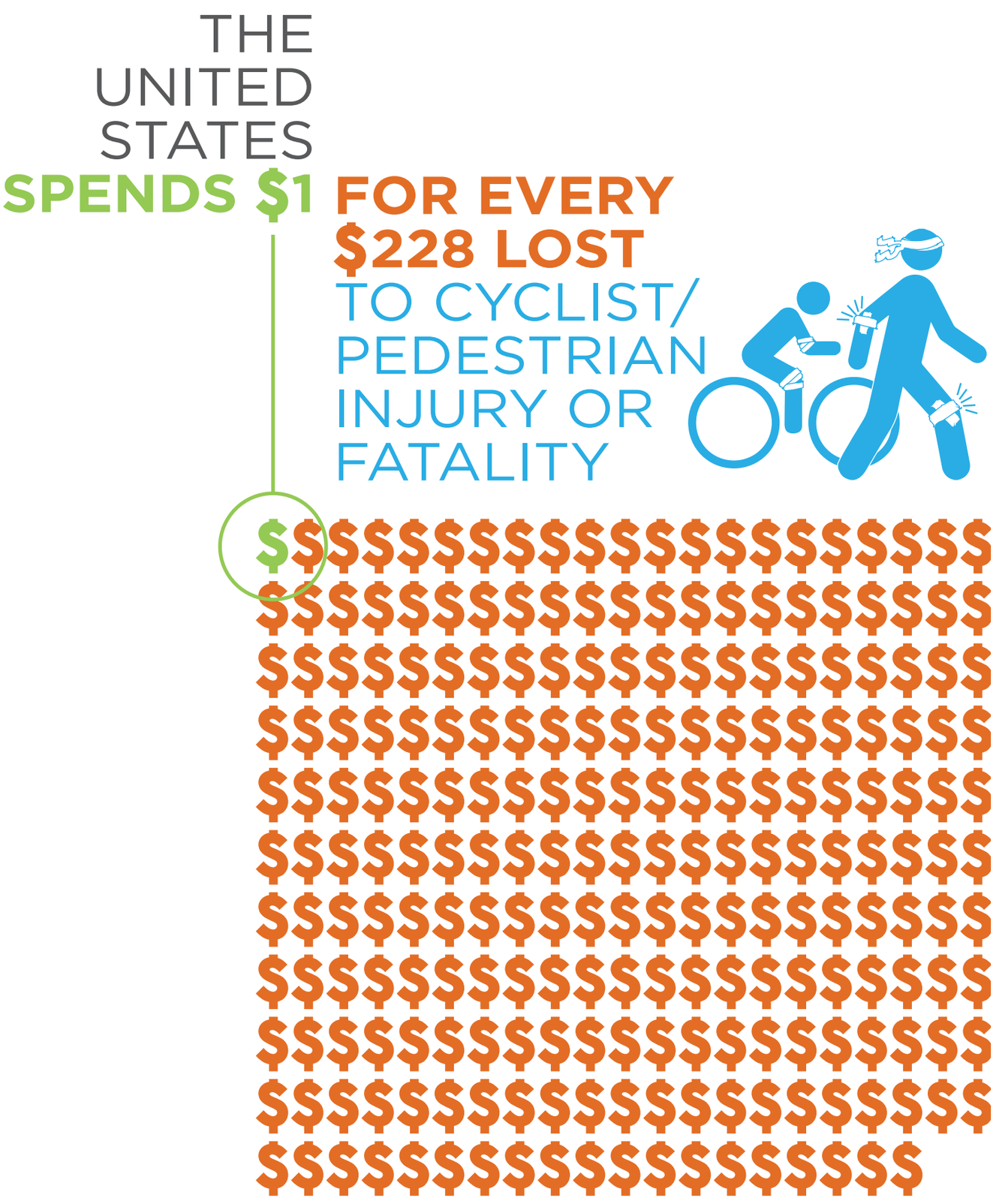


TABLE 05
THE COST OF PEDESTRIAN AND BICYCLE CRASHES

	CYCLIST & PEDESTRIAN FATALITIES 2012		CYCLIST & PEDESTRIAN INJURIES 2012	
	# of Fatalities	Cost	# of Injuries	Cost
US	34,806	$149,665,800,000	74,280*	$4,263,672,000
Florida	617	$2,653,100,000	13,471	$773,235,400
Broward, Palm Beach, & Miami-Dade	147	$632,100,000	3,420	$196,308,000

Estimated cost per death: $4.3 Million. Estimated cost per injury: $57,400.

BICYCLISTS AND PEDESTRIAN FATALITIES VS. FEDERAL SPENDING ON BICYCLE AND PEDESTRIAN IMPROVEMENTS



REGIONAL GREENWAYS & TRAILS PLAN

Greenways and trails are a growing part of multi-modal transportation networks across Florida and the U.S. The Southeast Florida Region represents three of the seven counties included in the Southeast Florida Regional Greenways and Trails Plan ("The Plan", which spans the nearly 300 miles from Indian River County to Monroe County. Figure 20 shows the portion of the plan covered in Miami-Dade, Broward, and Palm Beach Counties.

Intended for use by pedestrians, cyclists, and equestrians, greenways and trails provide mobility, expand recreational opportunities, connect community destinations, contribute to healthy lifestyles, and add value to communities. The Plan includes both existing and proposed facilities that form a connected, integrated regional network. The Plan is intended to serve as a conceptual guide for SEFTC, MPOs, agencies, local governments, and others for prioritizing and advancing projects over time to help develop an integrated network of non-motorized connections throughout the region, aligning facilities across jurisdictional lines where feasible.

The Plan includes three facility types, which meet the highest standards as established by the U.S. Forest Service. The selected facility types and dimensions are consistent with greenways/trails plans within local governments and Florida Department of Environmental Protection (FDEP).

PRIORITIZATION CRITERIA	DESCRIPTION
Paved, Multi-Use Trails	Minimum 10' in width Designed for use by pedestrians & cyclists
Unpaved, Multi-Use Trails	Minimum 10' in width Designed for use by pedestrians, cyclists, & equestrians
Unpaved Hiking Trails	Minimum 10' in width Designed for use by pedestrians, cyclists, & equestrians

The Greenways & Trails planning process was funded by the Palm Beach MPO and facilitated by the Treasure Coast Regional Planning Council. Four regional-scale workshops were conducted that included participation by the five MPOs and one transportation planning organization in the region, local governments, agencies (e.g., U.S. Fish and Wildlife Service, Florida Department of Environmental Protection, Florida Department of Transportation, Florida Department of Health, South Florida Regional Planning Council, South Florida Water Management District, South Florida Regional Transportation Authority), school districts, utilities (e.g., Lake Worth Drainage District, Florida Power and Light), user groups, and the public.

The Plan acknowledges that adoption of the plan and implementation of various facilities will occur at the initiative of local governments, agencies, and user groups. Accordingly, a series of project priorities are set forth in the Plan to help inform future project prioritization. These can be seen in Table 06.

The Florida Department of Environmental Protection has agreed to host the plan on its website and update annually with new data from the region's MPOs and TPOs. Accordingly, an annual review of the Plan is recommended to be led by the region's MPOs and TPOs to update facility inventories, review project development, and coordinate requests for funding within multi-jurisdictional boundaries. For more information, contact Franchesca Taylor, Bicycle-Pedestrian-TDM Coordinator for the Palm Beach MPO at ftaylor@PalmBeachMPO.org or 561-684-4170.

TABLE 06
REGIONAL GREENWAYS AND TRAILS PLAN PROJECT PRIORITIES

PRIORITIZATION CRITERIA	DESCRIPTION
System Connectivity	Facility will provide connection between two existing green ways/trails facilities identified in the Greenways/Trails Plan
Multi-Modal Connectivity	Facility will provide connection to a premium transit station or stop
Public Construction Leverage	Facility will be developed as part of new roadway construction or existing roadway resurfacing/reconstruction
Private Construction Leverage	Facility will be developed in conjunction with private land development activity
Land Ownership	Land for facility is owned or controlled through easements
Local Planning Support	Facility is included within capital improvements element of local government comprehensive plan and other local planning documents
Financial Participation	Project sponsor will provide funding towards construction of maintenance

FIGURE 20
REGIONAL GREENWAYS AND TRAILS PLAN

Credit: 305biz.org

SECTION

8

FREIGHT & GOODS

Southeast Florida is home to a well-established and expanding freight transportation system. This system serves as the cornerstone of the region's economy, providing goods and services to Florida's largest consumption market as well as connecting the region to the global economy through major sea and air gateways. The region is home to a multi-cultural community with an economy dominated by tourism, international trade, agriculture and mining, and natural resources.

In recognition of the importance of freight and goods movement, the network, projects, and priorities from Cargo 2040 Regional Freight Plan were directly integrated into the region's transportation plan. The following section highlights key information from Cargo 2040.

THE FREIGHT INDUSTRY AND THE REGION'S ECONOMY

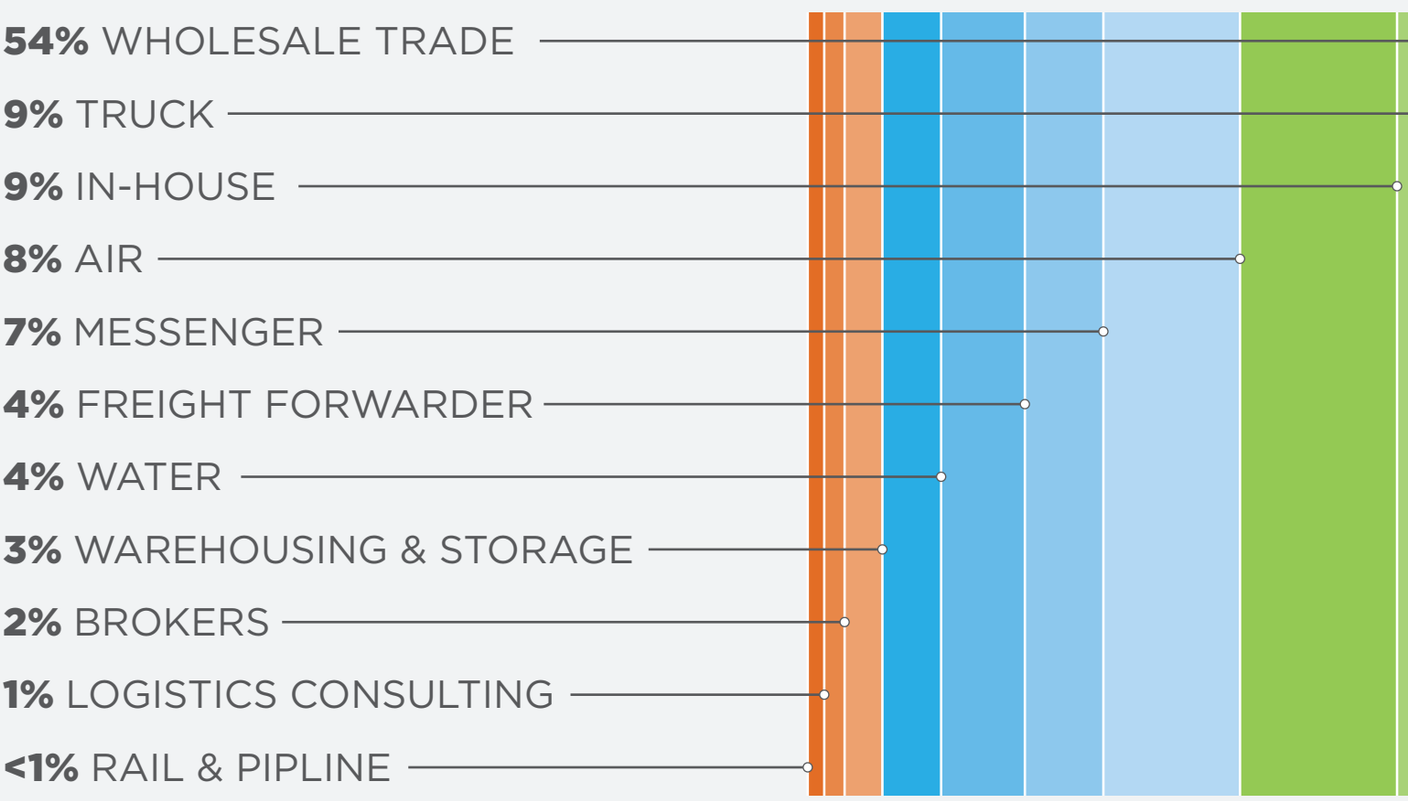
The focus of economic growth for Southeast Florida is on direct, indirect, and induced impacts of jobs, gross regional product (GRP), and economic output. Across the three counties, the freight industry was directly responsible for over 278,000 jobs in 2012 with a combined compensation of over $19 billion. This translates to an average salary of approximately $69,000 annually, inclusive of wages and benefits and a total economic output (gross revenue) of $55 billion corresponding to an equivalent GRP of nearly $32 billion.

As displayed in Figure 22 below, the wholesale trade industry represents the single largest employer of freight related businesses at 54 percent of the total employment. Truckers and air-related employment represent the second and third largest industry sectors directly related to freight activity at 9 percent and 8 percent, respectively.

FIGURE 21
ECONOMIC IMPACT OF THE FREIGHT INDUSTRY

Source: U.S. Census County Business Patterns, IMPLAN, Cambridge Systematics.

FIGURE 22
FREIGHT JOBS BY INDUSTRY SECTOR IN SOUTHEAST FLORIDA, 2012



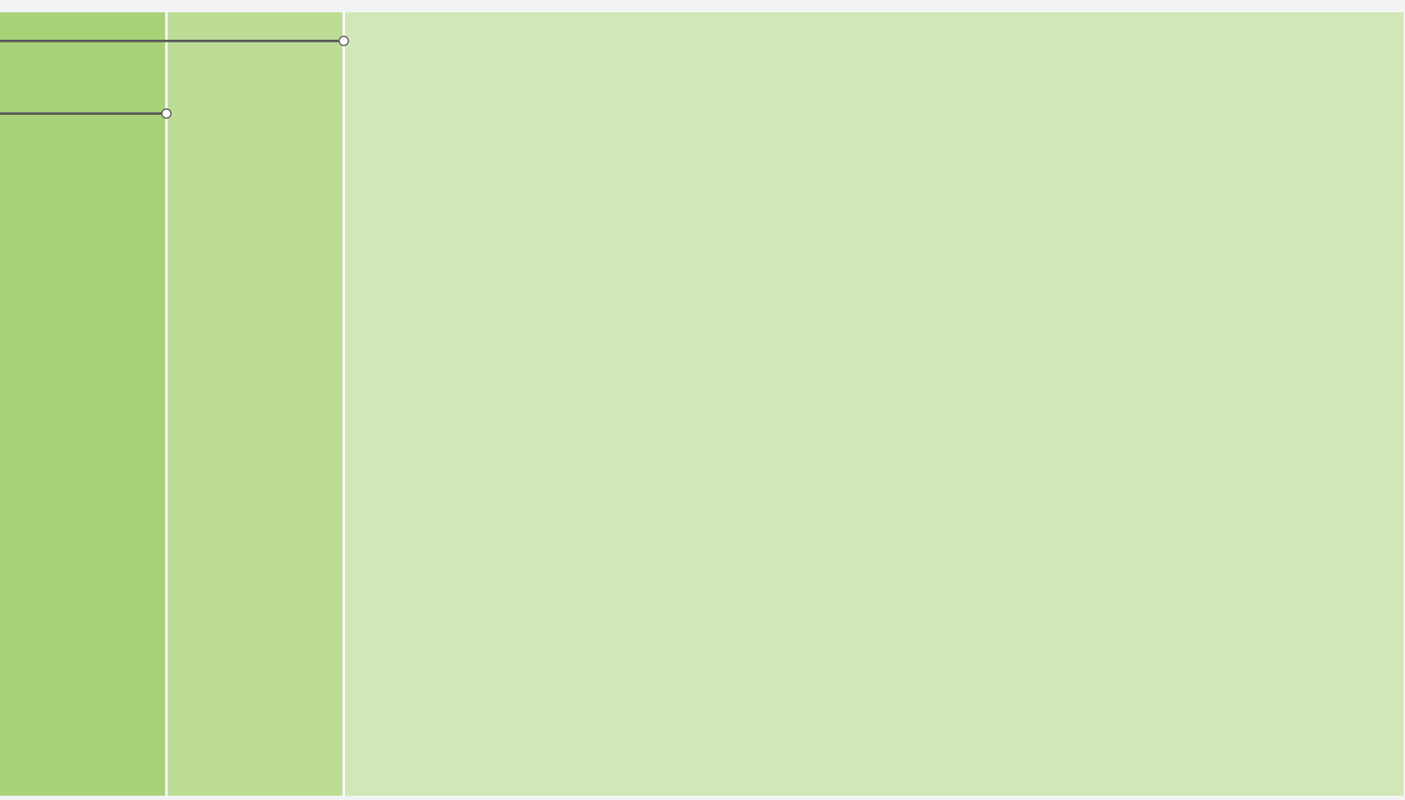
Source: U.S. Census County Business Patterns, IMPLAN, Cambridge Systematics.

279,000 JOBS

$19 BILLION COMPENSATION $69,000 AVERAGE PER JOB

$32 BILLION GROSS REGIONAL PRODUCT

$55 BILLION GROSS REVENUE



REGIONAL FREIGHT SYSTEM

Southeast Florida is home to a well-established and expanding freight transportation system. This system serves as the cornerstone of the region's economy, providing goods and services to Florida's largest consumption market as well as connecting the region to the global economy through major sea and air gateways.

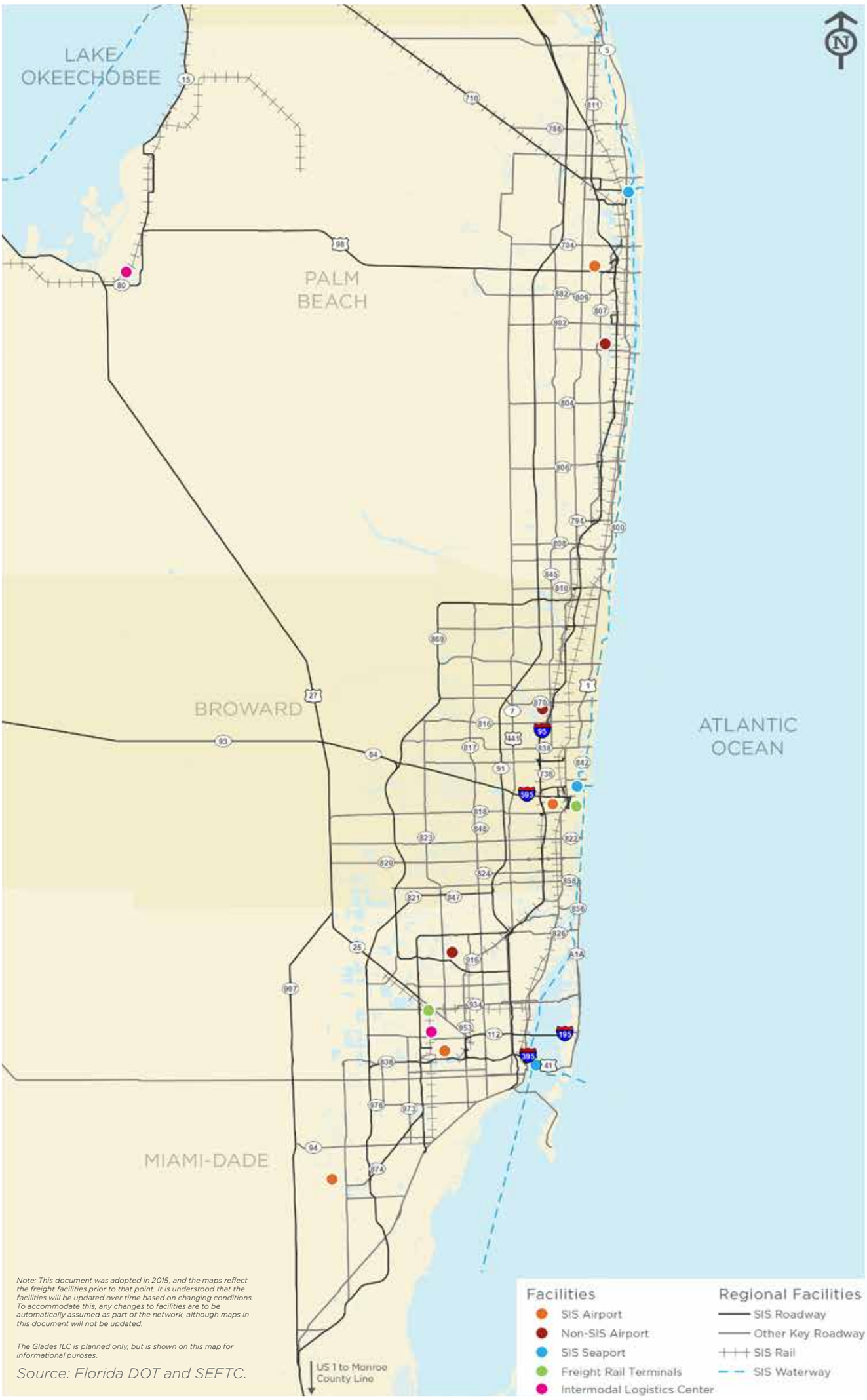
The Southeast Florida freight system is comprised of a complex network of roadways, railways, seaports, waterways, airports, and warehousing facilities. This network works together to facilitate the smooth movement of goods within the region, the state, and the country. The extent of this network is shown in Figure 23. The Florida Strategic Intermodal System (SIS) was established to help serve mobility needs of Floridians and to ensure and expand Florida's economic competitiveness. Within the three counties comprising the Southeast Florida region, the following are among the facilities designed as part of the SIS:

- Airports: Palm Beach International Airport, Fort Lauderdale-Hollywood International Airport, Miami International Airport, and Kendall-Tamiami Executive Airport;
- Freight Rail Terminals: Miami Hialeah FEC Intermodal Terminal and Fort Lauderdale FEC Intermodal Terminal;
- Seaports: Port of Palm Beach, Port Everglades, and PortMiami;
- Waterways: Atlantic Shipping Lane and the Atlantic Intracoastal Waterway, including the Miami River and waterway connectors from the shipping lane to all three seaports;
- Railways: CSX, FEC Railway, South Central Florida Express, South Florida Rail Corridor;
- Roadways: designated highways consist of Interstates, toll roads/expressways, and other key state highways as illustrated in Figure 23; and
- Connectors: each of the freight hubs has roadway and/or railway connectors designated to provide access to the SIS corridors.

While the SIS network has been defined as the most important facilities from a statewide perspective, other facilities in Southeast Florida are important from a regional perspective. This includes regionally significant highway corridors (predominately state roads), other smaller airports (including Fort Lauderdale Executive Airport, Lantana Airport, and Opa-Locka Airport), the New River, and intermodal logistics centers.

A Freight Advisory Subcommittee was formed to further craft and address our goals within the region.

FIGURE 23
REGIONAL FREIGHT NETWORK



Note: This document was adopted in 2015, and the maps reflect the freight facilities prior to that point. It is understood that the facilities will be updated over time based on changing conditions. To accommodate this, any changes to facilities are to be automatically assumed as part of the network, although maps in this document will not be updated.

The Glades ILC is planned only, but is shown on this map for informational puroses.

Source: Florida DOT and SEFTC.

REGIONAL LOGISTICS INFRASTRUCTURE

Southeast Florida's freight transportation infrastructure provides the means by which the freight moves into, out of and within the region. However, there are many other factors that impact how freight moves. These factors combine with the transportation system to form a comprehensive logistics infrastructure that provides all the necessary services, warehouse capacity, and international trade expertise. Key logistics related components and developments in Southeast Florida are:

- U.S. Customs and Border Protection
- Foreign Trade Zones
- Freight Forwarders and Brokers
- Land Use Implications
- Intermodal Logistics Centers (ILCs), Warehouses and Distribution Centers
- Truck Parking

GLOBAL, NATIONAL AND STATE FREIGHT INITIATIVES

SHIFTS IN GLOBAL TRADE

TRADE LANE SHIFTS

One of the largest anticipated shifts in international trade is expected to come from the opening of the Panama Canal Expansion. What this means for global trade, and the United States in particular, is a shift in trade routes from Asia from entering the United States through the West Coast and either railed or trucked to the east, to traversing the Panama Canal to the East Coast, with longer transit time but cheaper cost.

INTERNATIONAL MANUFACTURING CENTERS AND NEARSHORING

While China has been one of the largest trading partners with the United States, rising costs are driving manufacturers out of the country. Manufacturers are looking at Latin America. Nearshoring to Latin America will likely cause a modest shift in international trade patterns, and subsequently, impact use of Gulf and East Coast seaports, creating new opportunities for Southeast Florida seaports.

FREE TRADE AGREEMENTS

The Free Trade Agreements in place with several South American countries are particularly important for Southeast Florida. Since the region is a strong international hub for North-South trade movements, these Free Trade Agreements yield an advantage for increased exports to these countries.

PERISHABLES IMPORTS

In January 2012, the Florida Perishables Trade Coalition (FPTC) was formed to help increase trade of perishable products through both airports and seaports. The efforts of this association and other members of the industry have led to the creation of a pilot program to meet this goal. This pilot program began October 1, 2013 and allows for grapes and blueberries from Peru and Uruguay to enter both PortMiami and Port Everglades. By doing so, both shipping time and cost will be reduced greatly. Already, discussions are underway to expand this program to six more countries and encompass 15 additional commodities.

NATIONAL FREIGHT PROGRAM

MAP-21 & National Freight System: As part of MAP-21, DOT is required to establish a national freight network to assist the States in directing resources for the improvement of freight movements on highways. The initial designation may contain no more than 27,000 centerline miles of existing roadways. Figure 24 shows how this draft designation affects Southeast Florida. As the 27,000 centerline mile designation did not create a connected effort, a 41,000 centerline mile designation is also displayed.

Other National Programs that shapes the future of freight planning and operations include: Water Resources Reform and Development Act of 2014; Commercial Vehicle Operations, Regulation and Enforcement; Freight Advanced Traveler Information System; Smart Roadside; and Connected Vehicle Research.

FIGURE 24
FREIGHT NETWORK DESIGNATION IN SOUTHEAST FLORIDA

Note: This document was adopted in 2015, and the maps reflect the freight network prior to that point. It is understood that the network will be updated over time based on changing conditions. To accommodate this, any changes to the network are to be automatically assumed as part of the network, although maps in this document will not be updated.

Source: U.S. DOT

FLORIDA FREIGHT PROGRAM

Florida's freight program is driven by FDOT's Freight Mobility and Trade Plan described below. In addition to these FDOT initiatives, other partners have undertaken initiatives to specifically address the global trade and logistics opportunities for the state. The Department of Economic Opportunity's Strategic Plan in part addressed the freight and logistics opportunities as related to economic prosperity and the Florida Chamber Foundation's Trade and Logistics Study has helped identify strategies to enhance the state's opportunities.

FREIGHT MOBILITY AND TRADE PLAN

As required by legislature in 2012, the Florida Department of Transportation released the Freight Mobility and Trade Plan. This plan is intended to guide the programs, decisions, and actions of FDOT and to help inform the freight community of the state's direction in such planning.

FREIGHT SYSTEM NEEDS AND PRIORITIES

Southeast Florida has invested heavily in key infrastructure projects over the last several years, transforming how freight moves throughout the region. As these major projects, in the planning stages for years, have started to come online they signal to the world that Southeast Florida is open for business. In order to ensure our goal of becoming a global international trade and logistics hub, it is critical that we identify and fund the next generation of freight improvements.

MAJOR MISSING LINKS

There are a several major projects in Southeast Florida that have been discussed over the years that reflect significant investments necessary to help complete the continuity of the freight network. Some have advanced while others remain unfunded proposals. Key examples of these types of projects are summarized below:

- Gratigny Parkway;
- S.R. 826/S.R. 836 Interchange
- Golden Glades Interchange
- NW 25th Street Extension to The Turnpike Extension
- U.S. 27 Corridor
- Sawgrass Expressway Connection to I-95

FREIGHT NEEDS AND PRIORITIES

Project needs for three seaports, six airports, the rail system, and the highway facilities in Southeast Florida were identified and prioritized.

The seaports addressed include PortMiami, Port Everglades, and the Port of Palm Beach. The airports addressed include Fort Lauderdale-Hollywood International, Fort Lauderdale Executive, Lantana Airport, Miami International, Opa-locka Executive, Palm Beach International, and the majority of the identified needs reflect improvements that will benefit overall airport capacity, airport access, or airport operations. The rail components addressed include CSX, FEC Railway, South Central Florida Express (SCFE), and South Florida Rail Corridor (SFRC). These needs are focused on improved connectivity between FEC and CSX; mainline capacity; key track upgrades; and yard improvements. Criteria used for prioritization include project type, type of traffic, whether the project is in an established plan, level of impact, intermodal connectivity, and time frame.

Highway needs include corridors and connectors and major and minor facilities. Given the role trucks play in the region's freight system, the extent of the list is much greater than the other modes. The highway freight needs for Southeast Florida are based on the existing mechanisms in place for identification and development of improvement programs. Once the freight needs were identified, they were prioritized to ensure that the limited resources are invested in the projects that provide the greatest public benefit.

FIGURE 25
REGIONAL FREIGHT PRIORITY NEEDS

REGIONAL FREIGHT: STRATEGIES FOR MOVING FORWARD

As global shifts continue, and Florida advances its global logistics competitiveness, Southeast Florida needs to continue to develop and implement strategies that ensure it remains competitive and positioned for growth. The following highlights key short term and ongoing strategies to advance Southeast Florida's freight program:

PROMOTE ECONOMIC CONTRIBUTIONS OF FREIGHT AND LOGISTICS INDUSTRY.

› Transportation and economic development investments take place within a competitive environment. It will be critical to quantify the economic impacts associated with freight project investments for the successful solicitation of local, state, and Federal funds.

MAXIMIZE USE OF AVAILABLE FUNDING PROGRAMS.

› Although the level of funding available has diminished in recent years, there are a significant number of programs available to help advance freight projects. Programs like Transportation Investment Generating Economic Recovery (TIGER), State Infrastructure Banks (SIB), FDOT Strategic Intermodal System (SIS), and FDOT District Intermodal Funds have been used to advance critical projects in Southeast Florida. Applications, as appropriate, should be routinely submitted to these and other programs to ensure the region and its partners are competing for all available funding.

LEVERAGE INVESTMENTS THROUGH PUBLIC PRIVATE PARTNERSHIPS.

› Southeast Florida is home to some of the largest public private partnerships (P3s). Regardless of the scale of the project, P3s can help accelerate critical investments through shared risk. Opportunities for additional P3s should be identified and pursued as appropriate to help advance remaining freight system needs and increase funding opportunities.

EVALUATE THE EFFECTIVENESS OF THE FREIGHT SYSTEM.

› MAP-21, and likely the next transportation bill, promotes the importance of identification and implementation of a performance monitoring program to help track the performance of the freight system and effectiveness of the freight program. Florida is a leader in performance measures with a statewide program that exceeds federal requirements, with FDOT engaging in an effort to develop logistics and supply chain specific performance measures in 2015. Southeast Florida should participate in this statewide effort to ensure it has the tools necessary to justify future investments in freight projects.

ENGAGE THE FREIGHT COMMUNITY IN THE IDENTIFICATION OF FREIGHT BOTTLENECKS.

› Regional and local freight committees and other key partners must remain engaged and drive investment decisions.

ENSURE TRADE AND LOGISTICS REMAINS A TARGETED INDUSTRY.

› Significant work has been undertaken over the last several years to elevate trade and logistics to the list of targeted industries, resulting in the availability of a number of economic incentives. It is critical that these industries remain designated and that economic development professionals use available incentives to attract and grow businesses in Southeast Florida.

SUPPORT WORK FORCE DEVELOPMENT PROGRAMS.

› The trade and logistics industry is aging and the availability of a trained workforce has become one of the most critical concerns for many companies. Southeast Florida should take an active role in workforce development activities to ensure local businesses have access to a highly trained and competitive workforce.

CONTINUE TO DEVELOP, TEST AND EXPAND PILOT PROGRAMS.

› Southeast Florida is home to several innovative and cutting edge pilot programs developed to address critical bottlenecks in our international trade regulations and operations. Local leaders should continue to expand these pilots and identify new innovative ways to streamline operations to drive the competitiveness of the trade and logistics industry.

MONITOR INTERMODAL LOGISTICS CENTER DEVELOPMENTS AND PARTNER AS APPROPRIATE.

› The larger master planned Intermodal Logistics Center (ILC) proposals for Southeast Florida have the potential to significantly expand the logistics capacity of the region and the state as they come online. When these developments break ground, it will be important for Southeast Florida businesses and government leadership to engage with the developers to develop business relationships.

SUPPORT ADVANCEMENT OF SOLUTIONS FOR MISSING FREIGHT LINKS.

› While some of the missing freight links discussed previously are being addressed as part of ongoing projects, others are not currently advancing. As the region continues to grow its cargo operations, finding a way to advance some of these remaining projects will help communicate to the world that Southeast Florida is open for business and committed to being a global logistics hub.

PROMOTE REGIONAL FREIGHT MOBILITY.

› The freight companies serving the Region do not recognize county lines; they only care about overall access and mobility. The continued partnership by the Broward, Miami-Dade, Palm Beach MPOs and the FDOT Districts will be critical to ensure the freight community is provided the best transportation and logistics system possible.


NORTH
INTERSTATE
95
HOLLYWOOD BLVD

SECTION

9

PLANNING FOR OPERATIONS

Planning for operations is the joint effort of planners and operators in metropolitan regions to provide improved transportation system management and operations. Planning for operations involves the consideration of management and operation strategies in the transportation planning process. It goes further to develop operations objectives that support the integration of operational solutions as part of the planning process.

During the development of the RTP, the region formed the Transportation System Management & Operations subcommittee to focus on creating regional operations-focused objectives, performance measures, and consistent approaches to studies, funding, and implementation guidance. Through this subcommittee, the region will be able to better share information and increase collaboration. By creating stronger partnerships between planners and operators, decision-makers will be better informed on the benefits, challenges, and trade-offs from a mobility, safety and financial perspective between operations and capital investments.

WHAT IS CONGESTION MANAGEMENT PROCESS (CMP)?

A CMP is a systematic process for managing traffic congestion and providing transportation system performance information. A CMP measures the multimodal performance of the transportation system; identifies the causes of congestion; assesses and implements cost-effective mitigation strategies; and evaluates the effectiveness of these strategies. The CMP is one of the primary avenues for planning for operations in metropolitan regions.

WHAT IS TRANSPORTATION SYSTEM MANAGEMENT AND OPERATIONS (TSM&O)?

TSM&O is an integrated program to optimize the performance of the existing infrastructure through the implementation of multimodal, cross-jurisdictional systems, services, and projects. The implementation of TSM&O strategies look to preserve capacity and improve system efficiency, safety and reliability. TSM&O strategies are often identified to address congestion issues as a result of the CMP. Example TSM&O strategies include: incident response vehicles, traveler information, managed lanes, ramp metering, intelligent transportation systems (ITS), carpooling and vanpooling options.

TRANSIT SIGNAL PRIORITY

DYNAMIC MESSAGING ON I-95

ROAD RANGER PROGRAM

NATIONAL OUTLOOK

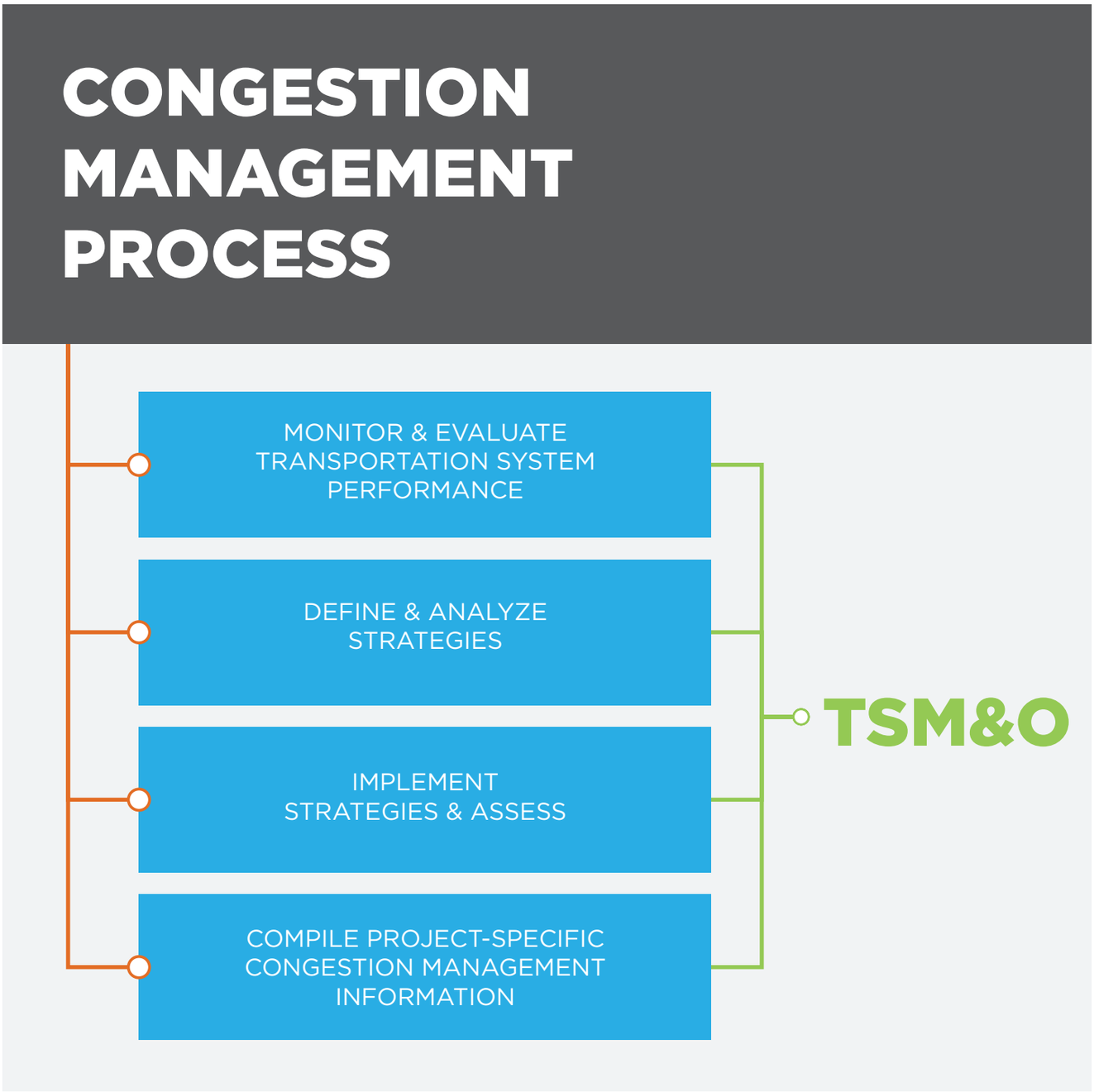
TSM&O has been an important focus area at a national level. Federal bills and policies have been passed on the subject matter. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), enacted in 2005, contained requirements for MPOs to promote efficient system management and operations and include management and operations strategies in the CMP for regional planning. The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012, required strategies to demonstrate a contribution to achieving performance targets defined for regional planning. Other federal funding programs that may support TSM&O activities include the Congestion Mitigation and Air Quality Improvement (CMAQ) Program; the Highway Safety Improvement Program (HSIP); the National Highway Performance Program (NHPP); the Surface Transportation Program (STP); and Metropolitan Planning.[20]

The Federal government and many MPOs nationwide have allocated funding to support TSM&O-related activities. Multiple MPOs have set aside funding for TSM&O projects, and in addition, some MPOs have been able to make TSM&O projects eligible to compete in the general pool of funds.

USDOT, state agencies, and university institutions have invested and contributed in TSM&O research and continue to do so.

20 U.S. Department of Transportations, Federal Highway Administration, Programming for Operations: MPO Examples of Prioritizing and Funding Transportation Systems Management & Operations Strategies, Publication No. FHWA-HOP-13-050

FIGURE 26
THE TSM&O STEPS WITHIN THE 8-STEP CMP



PLANNING FOR OPERATIONS IN OUR REGION

CURRENT HAPPENINGS AND FUTURE PLANS

The Southeast Florida region is making great progress in TSM&O. In fact, most TSM&O areas defined by FHWA are currently in practice, and many show planned strategies for future implementation. The region's on-going activities and planned strategies/projects by TSM&O area are briefly described in the following pages.

TABLE 07
PLANNING FOR OPERATIONS SNAPSHOT BY TSM&O CATEGORY AND AGENCY

TSM&O AREA	FDOT DISTRICT 6		FDOT DISTRICT 4	
Arterial Management	●	○	●	○
Freeway Management	●	○	●	○
Freight Management	●	○	●	○
Transit Operations and Management				
Emergency/Incident Management	●		●	
Special Event Management			●	○
Travel Demand Management				
Traveler Weather Management	●		●	
Traveler Information	●		●	
Work Zone Management	●		●	

● Active TSM&O Area

○ Planned project/strategy within TSM&O area identified

	COUNTIES			TRANSIT AGENCIES				
	MIAMI-DADE	BROWARD	PALM BEACH	SFRTA	MIAMI-DADE TRANSIT	BROWARD COUNTY TRANSIT	PALM TRAN	SOUTH FLORIDA COMMUTER SERVICES
	● ○	● ○	● ○					
	● ○	●	● ○					
				● ○	● ○	● ○	● ○	●
	●	●	●					
		● ○	● ○					
	●	●	●					
	●	●	●	●	●	●	●	●
	●	●	●	● ○	●	● ○	●	●

ARTERIAL AND FREEWAY MANAGEMENT

"Arterial management is the management of arterial facilities in a manner that provides users with a safe, efficient, and reliable trip. Freeway management is the implementation of policies, strategies, and technologies to improve freeway performance. The over-riding objectives of freeway management programs include minimizing congestion (and its side effects), improving safety, and enhancing overall mobility" [21]

21 U.S. Department of Transportations, Federal Highway Administration and Federal Transit Administration, Advancing Metropolitan Planning for Operations: The Building Blocks of a Model Transportation Plan Incorporating Operations – A Desk Reference, Publication No. FHWA-HOP-10-027

EXAMPLES FROM THE REGION

Credit: Sunguide

RAMP METERING

TOLLING


Credit: Kimley Horn & Associates

ATMS

For freeway management, our region has implemented a congestion-priced managed lanes system. The Southeast Florida Express Lane Network started with 95 Express in Miami-Dade County, expanded to include 595 Express, and will add multiple limited-access facilities in the coming years. These include the 95 Express Phases 2 and 3; the Palmetto Express; the I-75 Express; and Turnpike Extension Express Lanes.

For freeways and arterials, roadway conditions are monitored in our region through ITS devices deployed in the field, such as Closed Circuit Television cameras and roadway detectors. These devices communicate back to the Traffic Management Centers (TMCs) through a fiber-optic communication network, and allow for incident management response and real time passage information sharing. The TMCs in our region include:

- Miami-Dade SunGuide District Six TMC (jointly operated by FDOT and County)
- Broward SMART SunGuide District Four RTMC (jointly operated by FDOT and County)
- Palm Beach SMART SunGuide District Four TMC (jointly operated by FDOT and County)
- Florida's Turnpike Enterprise TMC
- Miami-Dade Expressway Authority (MDX) TMC
- I-595 Express, LCC

ITS typically refers to the systems deployed on limited access facilities. In Southeast Florida, similar systems have been deployed on arterials, termed Advanced Traffic Management System (ATMS). ATMS allows for the monitoring of traffic signals and an efficient and effective response in front of signal malfunctions. This strategy was implemented in Miami-Dade, Broward and Palm Beach County in 2005, 2013, and 2012, respectively.

Ramp signals and signal retiming are also part of the strategies for arterial management in the three counties.

"Freight management is the effective management of the system for freight transportation. The goal of freight transportation is to move goods safely, efficiently, and reliably throughout the region. This may range from satisfying the customer (e.g., freight shippers, receivers, and carriers) to actual travel time on the system." [22]

22 U.S. Department of Transportations, Federal Highway Administration and Federal Transit Administration, Advancing Metropolitan Planning for Operations: The Building Blocks of a Model Transportation Plan Incorporating Operations – A Desk Reference, Publication No. FHWA-HOP-10-027

EXAMPLES FROM THE REGION

FREIGHT IN PORT EVERGLADES

PORTMIAMI

FREIGHT IN DOWNTOWN MIAMI

The South Florida Virtual Freight Network (VFN) concept is a program developed to facilitate freight movement between major load centers in the region. The VFN concept was utilized to create the USDOT's Freight Advanced Traveler Information System (FRATIS), a freight mobility application program that was recently in prototype testing in Dallas, Los Angeles, and Southeast Florida. While the app developed as part of FRATIS will not be implemented for freight information dissemination, FDOT District 4 is reviewing the feasibility for implementing the emergency management tools developed through the FRATIS prototype.

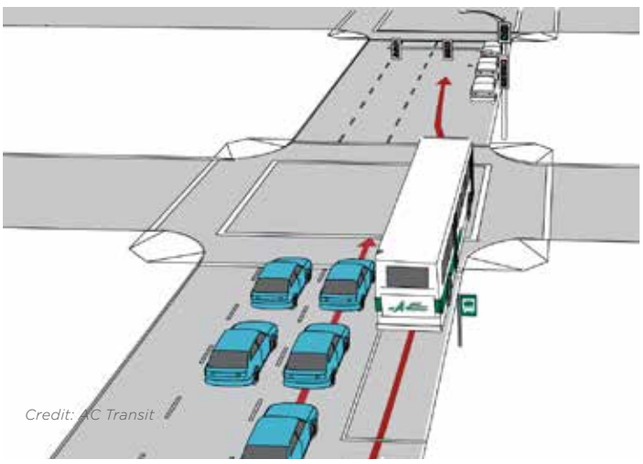
The Southeast Florida region also developed and adopted Cargo 2040, the 2040 Regional Freight Plan. The sole purpose of this plan was to assess freight needs for the three county region. Public agencies worked in collaboration with the freight industry to identify investments needed to improve the freight network and operations. Examples include pilot programs to address critical bottlenecks and freight-related connected vehicle applications.

TRANSIT OPERATIONS AND MANAGEMENT

"Transit operations and management is the operation and management of the transit system in a safe and efficient manner." [23]

23 U.S. Department of Transportations, Federal Highway Administration and Federal Transit Administration, Advancing Metropolitan Planning for Operations: The Building Blocks of a Model Transportation Plan Incorporating Operations – A Desk Reference, Publication No. FHWA-HOP-10-027

EXAMPLES



QUEUE JUMP DIAGRAM

REAL TIME ARRIVAL INFORMATION

TRI-RAIL, REGIONAL RAIL SYSTEM

The South Florida Regional Transportation Authority (SFRTA), Miami-Dade Transit (MDT), Broward County Transit (BCT), and Palm Tran are currently implementing several TSM&O-related strategies as part of their Transportation Development Plans (TDPs). Some of these strategies include route extensions, headway improvements, ITS technology integration, enhanced bus service, and park-and-ride facilities. The 2040 LRTP of each MPO includes transit operations and management strategies as part of the Cost Feasible Plan. Major transit projects planned for implementation in the region include the Tri-Rail Coastal Link expansion along the FEC corridor; the Wave Streetcar in Ft Lauderdale; and the All Aboard Florida service to Miami, Fort Lauderdale, West Palm Beach, and Orlando.

EMERGENCY/INCIDENT MANAGEMENT

"Emergency management is designed to provide users with a safe and efficient transportation system during an emergency situation. Incident management is defined as verifying, responding to, and clearing traffic incidents in a manner that provides transportation system users with the least disruption." [24]

24 U.S. Department of Transportations, Federal Highway Administration and Federal Transit Administration, Advancing Metropolitan Planning for Operations: The Building Blocks of a Model Transportation Plan Incorporating Operations – A Desk Reference, Publication No. FHWA-HOP-10-027

EXAMPLES FROM THE REGION

Credit: FloridaTIM

ROAD RANGER PATROL

INCIDENT MANAGEMENT

RAPID INCIDENT SCENE CLEARANCE

The Florida Division of Emergency Management ensures Florida is prepared to respond, recover from, and mitigate against natural and man-made disasters such as floods, hurricanes, and hazardous material incidents. As part of the emergency preparation efforts, the division develops a Comprehensive Management Plan; conducts emergency exercises and training at the state and county level; and collaborates with local agencies on their emergency plans and procedures. When an event or a potential event is detected, the State Emergency Operations Center in Tallahassee gets activated, and the State Emergency Response Team, comprised of local, state and federal officials, initiates the response effort.

Incident Management is a multi-agency effort targeting safe and efficient response to traffic incidents. When a traffic incident occurs, the TMCs coordinate with various regional and statewide partners, including Road Rangers, Road Watchers, and Florida Highway Patrol, to address the incident and congestion locations. The public is informed of the event through different real time traffic information venues.

"Special event management provides users with a safe and efficiently managed transportation system during a planned special event." [25]

25 U.S. Department of Transportations, Federal Highway Administration and Federal Transit Administration, Advancing Metropolitan Planning for Operations: The Building Blocks of a Model Transportation Plan Incorporating Operations – A Desk Reference, Publication No. FHWA-HOP-10-027

EXAMPLES FROM THE REGION

COLOR RUN

ULTRA MUSIC FESTIVAL ROAD CLOSURES

MARLINS BALLPARK

Special event management is one of the main strategies that District 4 implements under its Active Arterial Management program in Palm Beach County. The traffic mitigation associated with Flagler Memorial Bridge was associated with the bridge's being closed for reconstruction. Suggest rewording this sentence as follows: Palm Beach County Traffic has managed several special events in the city of West Palm Beach and has also managed the traffic impacts associated with the Flagler Memorial Bridge reconstruction project. Palm Beach County has proven the benefits of active arterial management and documents its results monthly. The Quarter 4 results in 2014 for the county's program included a travel time savings of 30,200 vehicle hours, a savings in fuel consumption of $99,212, and a Net Present Value of $790,699.

The Active arterial management program in Broward County is limited to signal timing resources and has not started to manage special events on a regular basis.

"Travel demand management is defined as providing users with effective travel choices to shift or reduce the demand for travel in congested conditions. Travel demand management oversees two types of travel: commute travel and travel associated with tourism, emergencies, special events, shopping, etc." [26]

26 U.S. Department of Transportations, Federal Highway Administration and Federal Transit Administration, Advancing Metropolitan Planning for Operations: The Building Blocks of a Model Transportation Plan Incorporating Operations – A Desk Reference, Publication No. FHWA-HOP-10-027

EXAMPLES FROM THE REGION

Credit: Sun Trolley

SUN TROLLEY

MIAMI TROLLEY

Credit: VPSI INC

SOUTH FLORIDA VANPOOL

The South Florida Commuter Services (SFCS) promotes carpooling in the region by providing commuters with the option of connecting with other commuters interested in carpooling. The South Florida Vanpool program is managed by the Miami-Dade MPO, and allows groups of 6 to 15 commuters to share a van for an affordable monthly cost. Park-and-ride lots are often good locations to meet for carpooling and vanpooling. There are several park-and-ride locations throughout the three counties, including those provided by FDOT, Metrorail, Tri-Rail, MDT, and Palm Tran. A trip planning tool, including a full list of park-and-ride locations, is available in the SFCS website.

TRAVELER WEATHER MANAGEMENT

"Travel weather management focuses on providing users with a safe and efficient transportation system during and after weather events." [27]

27 U.S. Department of Transportations, Federal Highway Administration and Federal Transit Administration, Advancing Metropolitan Planning for Operations: The Building Blocks of a Model Transportation Plan Incorporating Operations – A Desk Reference, Publication No. FHWA-HOP-10-027

EXAMPLES FROM THE REGION

FLOODING ON A1A

FLOODING IN MIAMI

HURRICANE KATRINA IN FT. LAUDERDALE

The Southeast Florida region, prone to hurricanes, is well prepared for weather related emergency situations through its active travel weather management programs. Several agencies and partners collaborate and coordinate within these programs in order to provide a safe and secure environment during these events. Not only are these weather-related emergency plans coordinated at the County and regional level, but they are also reported at the State level to ensure maximum safety and security plans are in place at all times.

At the County level, Traffic Management Centers throughout the region have Hurricane Preparedness Plans in place that outline the system management protocol. Also at the County level, the emergency management centers have several outreach tools such as Hurricane Preparedness Guides (available for mobile devices), emergency preparedness plans for residents at risk, active involvement in the Hurricane Preparedness Week, and twitter emergency alert services.

At the State level, the District Maintenance Offices have Emergency Response Plans in place for various weather related situations, including but not limited to hurricanes. Several roadways within the region have integrated weather sensors to help track certain conditions, such as storms or fog, so that proper alerts and management strategies can be implemented within a time sensitive manner.

"Traveler information is designed to provide transportation system users with the information they need to choose the safest and most efficient mode and route of travel" [28]

28 U.S. Department of Transportations, Federal Highway Administration and Federal Transit Administration, Advancing Metropolitan Planning for Operations: The Building Blocks of a Model Transportation Plan Incorporating Operations – A Desk Reference, Publication No. FHWA-HOP-10-027

EXAMPLES FROM THE REGION

Credit: GoFlorida

511 TRAVELER INFORMATION SIGN

Credit: Miami-Dade MPO

REAL TIME HIGHWAY INFORMATION SIGN

Credit: Miami-Dade MPO

REAL TIME HIGHWAY INFORMATION SIGN

Real time traffic information on Florida's interstates, toll roads and other major metropolitan roadways is made available to the public through Dynamic Message Signs (DMS), Highway Advisory Radio, SunGuide website, and Florida's 511 traveler information. The TMCs collect data (from sensors, cameras, Florida Highway Patrol, and Road Rangers) that lead to real-time updates of traffic conditions.

FDOT District Four has deployed over a dozen arterial DMS within Broward County and has plans to deploy several more in Palm Beach County. These signs provide information on travel time, special events, lane closures, and other important public information. 511 is also being updated to include key arterials monitored in Broward and Palm Beach counties.

The SFCS is a one-stop shop for commuters ride sharing options in Miami-Dade, Broward, Palm Beach, Martin and St. Lucie Counties. Commuter options include carpooling, vanpooling, transit, bicycling, and park-and-ride. The public can access the information by calling 1.800.234. RIDE or visiting the SFCS Website.

"Work zone management involves organizing and operating areas impacted by road or rail construction to minimize traffic delays, maintain safety for workers as well as travelers, and accomplish the work efficiently." [29]

29 U.S. Department of Transportations, Federal Highway Administration and Federal Transit Administration, Advancing Metropolitan Planning for Operations: The Building Blocks of a Model Transportation Plan Incorporating Operations – A Desk Reference, Publication No. FHWA-HOP-10-027

EXAMPLES OF WORK ZONE MANAGEMENT

FLASHING SIGNS AND BARRICADES

REDUCED SPEED LIMIT IN CONSTRUCTION ZONE

LANE CLOSURES

FDOT District Six has implemented Active Work Zone Management on several major projects. This program requires the implementation of ITS to monitor traffic conditions. A combination of real-time data collection, modeling and monitoring as well as on-site signal retiming have proven beneficial in maintaining mobility and minimizing travel time variations during peak periods. These work zone strategies have been implemented in both freeways and arterial corridors.

FDOT District Four actively managed key arterials in West Palm Beach to mitigate the traffic affected by the Flagler Memorial Bridge closure. Managing arterials affected by work zones is a cost beneficial practice and District Four is looking at how and when to apply this strategy, especially when operations and Advanced Traffic Management System related budgets are limited. Congestion Management Process.

CONGESTION MANAGEMENT PLANS (CMPs)

Consistent with federal legislation, the three MPOs in the region have CMPs in place. The Miami-Dade CMP is prepared in coordination with the LRTP, and congestion management treatments are integrated as part of the Cost Feasible Plan. The Broward MPO combines the CMP with Livability Planning in an effort to reduce single occupancy vehicle travel and improve safety and mobility through modes of transportations other than the vehicle (transit, shuttles, bicycle and pedestrian). The Palm Beach CMS involves: identifying locations of congestion, evaluating the significance and duration of congestion, and prioritizing the CMS analysis corridors. Some corridors are addressed without a full corridor study, while worst performing corridors are moved into comprehensive studies. These corridors are prioritized and evaluated as part of the FDOT Work Program and MPO TIP.

PLANNING FOR INNOVATIONS

Advancements in data collection and communication technologies, such as Bluetooth/cell phone probe data, surveillance camera, fiber-optic cable installations, and more, have shaped the evolution of the transportation industry. The adoption of automated vehicles technologies, which include both autonomous and connected vehicles, will have a significant impact in the transportation system. The technology presents unprecedented opportunities to help reduce congestion and improve safety. While there still a long way before automated vehicles become widespread in Florida and nationwide, planning efforts for their integration into the system area already in place. Since 2002, the USDOT has been engaged in researches with private industry on automated vehicle technologies. FDOT has established the Florida Automated Vehicles (FAV) initiative to help create the framework for implementation of automated vehicles, create awareness of the technologies, and develop research and pilot projects. Legislation for testing automated vehicles was passed in the state, and FDOT have dedicated 25 miles of roadway along portions of I-4 in Orlando, Florida as the connected vehicle test bed. Two FAV Summits have been organized to-date to promote and facilitate automated vehicle efforts.

GAPS AND OPPORTUNITIES

The Southeast Florida region is making great progress in planning for operations. Gaps and opportunities within the planning for operations framework are generally described below for future consideration.

As planning for operations continues to evolve and new challenges, such as planning for automated vehicles, are presented, regional level coordination for TSM&O efforts becomes imperative. Because of this, the SEFTC formally created a TSM&O subcommittee. The main purpose of this staff-level group is the coordination of TSM&O projects, so that they can be included in planning documents and funding can be allocated. Members include the Miami-Dade Expressway Authority, the Florida Turnpike Enterprise, the three MPOs, the four transit agencies, the county Traffic Engineering Divisions, and FDOT. The Regional Transportation Technical Advisory Committee (RTTAC) oversees the subcommittee and brings the findings to SEFTC, consistent with the operating structure of the body.

A first major initiative the subcommittee could consider is the development of a Regional Concept of Transportation Operations (RCTO). An RCTO, as defined by FHWA, is a management tool to assist in planning and implementing management and operations strategies in a collaborative and sustained manner. Developing an RCTO helps partnering agencies think through and reach consensus on what they want to achieve in the next 3 to 5 years and how they are going to get there. Once developed through the subcommittee, this document could be adopted by SEFTC and used as a basis for operations related project priorities in the region.

Credit: TCRPC and ArXSolutions

SECTION

10

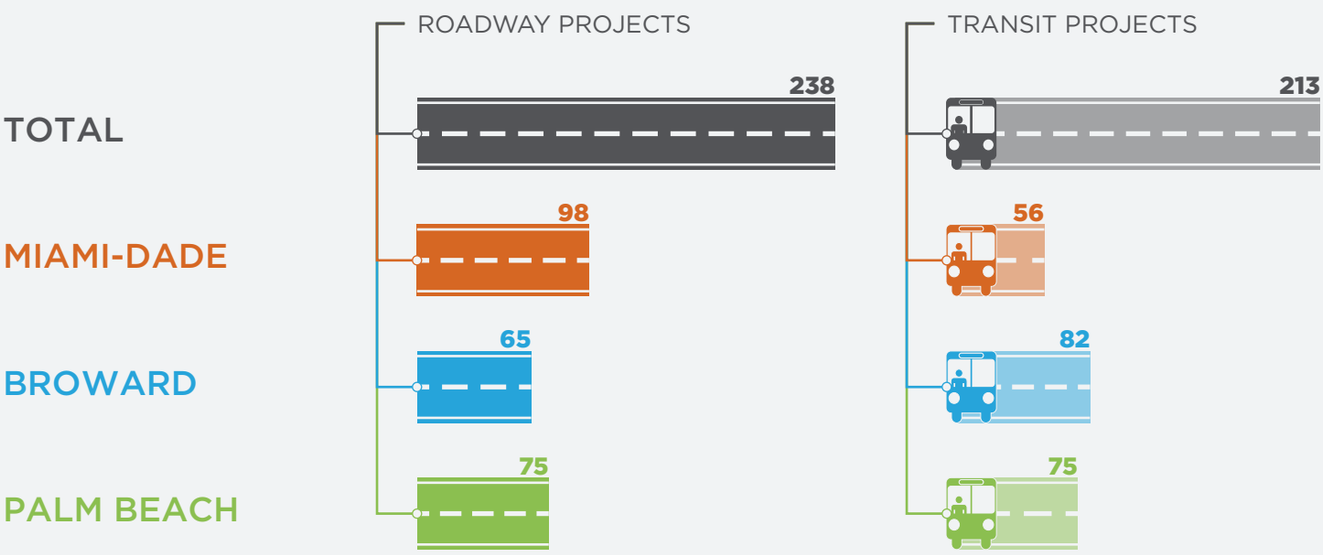
NEEDS IDENTIFICATION

Through close coordination with the regional stakeholders and the application of the regional travel demand forecasting model, a comprehensive set of regional projects was developed. This exercise, commonly referred to as a Needs Plan, was the foundation used to identify transportation projects in the three individual counties within the region. These projects include transit and roadway projects but do not consider stand alone pedestrian and bicycle projects. Collectively, they provide the infrastructure needed to maintain and/or improve mobility.

PROJECTS NEEDED TO ACHIEVE THE PLAN

The Southeast Florida region identified a total of 451 “needs” projects through the year 2040 to maintain and/or improve the system. 238 of these projects are roadway projects and 213 of them are transit projects.

FIGURE 27
SOUTHEAST FLORIDA REGIONAL NEEDS



COORDINATION ACTIVITIES

The regional needs assessment was conducted in two stages. First, information on regional existing and committed networks were assembled based on input from the project stakeholders to create the existing-plus-committed (E+C) networks. Based on this, the Regional Transportation Technical Advisory Committee (RTTAC) Modeling Subcommittee developed a regional network. Each project stakeholder was asked to prepare and submit project information for the Needs Plan. This information was used in conjunction with information from the RTTAC regarding projects of regional significance to create a region wide Needs Plan network for model testing.

E+C NETWORK DEFINITION

Information on regional existing networks was combined with projects that have identified funding sources in the current capital improvement plans for each MPO and/or other project sponsor. The resulting regional existing-plus-committed (E+C) network serves as a baseline for comparison for both the development of the Needs network and, later, for review of the Cost Feasible network.

NETWORK DEFINITION

The regional Needs network was assembled through careful coordination with the project stakeholders. Each project stakeholder prepared and submitted lists of their roadway and transit project nominations based in part on model results from Version 7 of the Southeast Florida Regional Planning Model version 7 (SERPM-7). Additionally, cross-county roadway projects were checked to ensure compatibility and transit projects were reviewed to confirm consistency with the regional Transit Vision Plan.

The cross-county line projects that were checked for compatibility were:

- Florida Turnpike
- I-95 Managed Lanes
- I-75 Managed Lanes
- University Drive/NW 27th Avenue
- SR 7/US 411
- US 1
- FEC/CSX Rail

IF ALL THE NEEDS PROJECTS WERE TO BE BUILT...

ROADWAY NETWORK ENHANCEMENTS

The Needs network adds over 1,200 lane miles of roadway network on top of what is included in the E+C network. This includes over 800 lane miles of limited access highway and nearly 300 lane miles of high-speed arterial roadway.

FIGURE 28
ROADWAY SNAPSHOT LANE MILES ADDED BY JURISDICTION

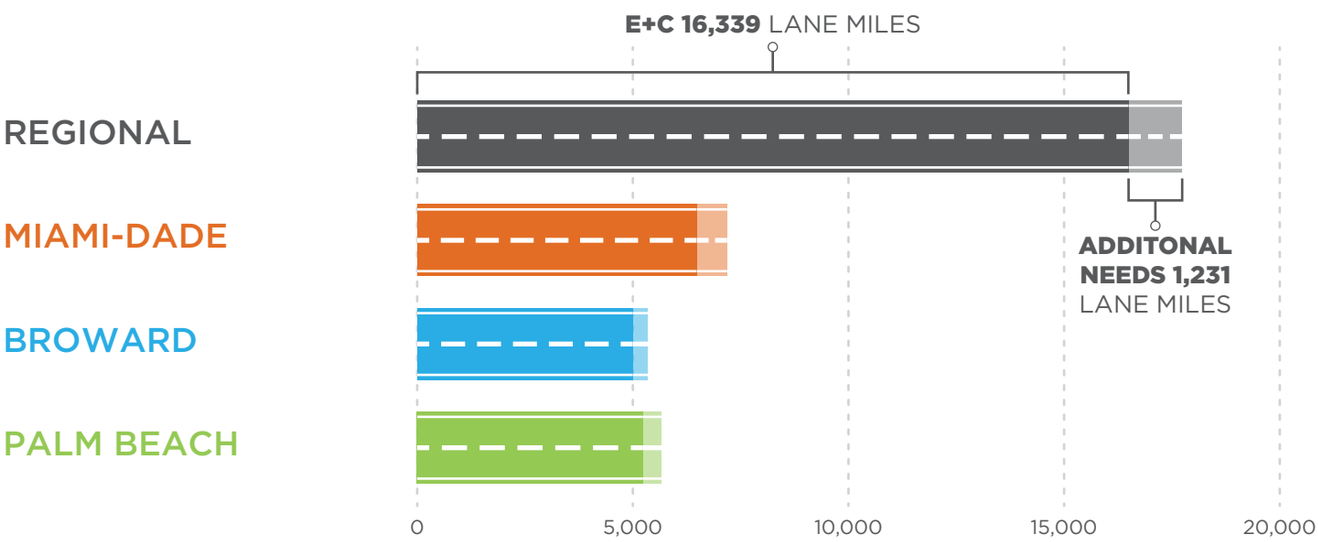


FIGURE 29
ROADWAY SNAPSHOT LANE MILES ADDED BY FACILITY TYPE

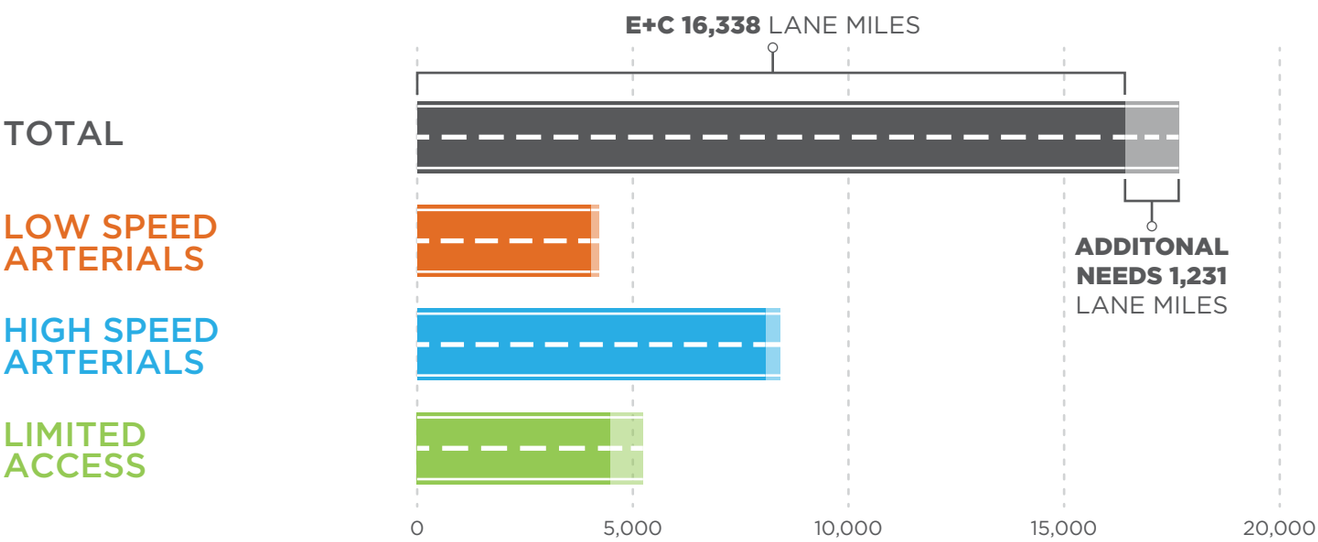
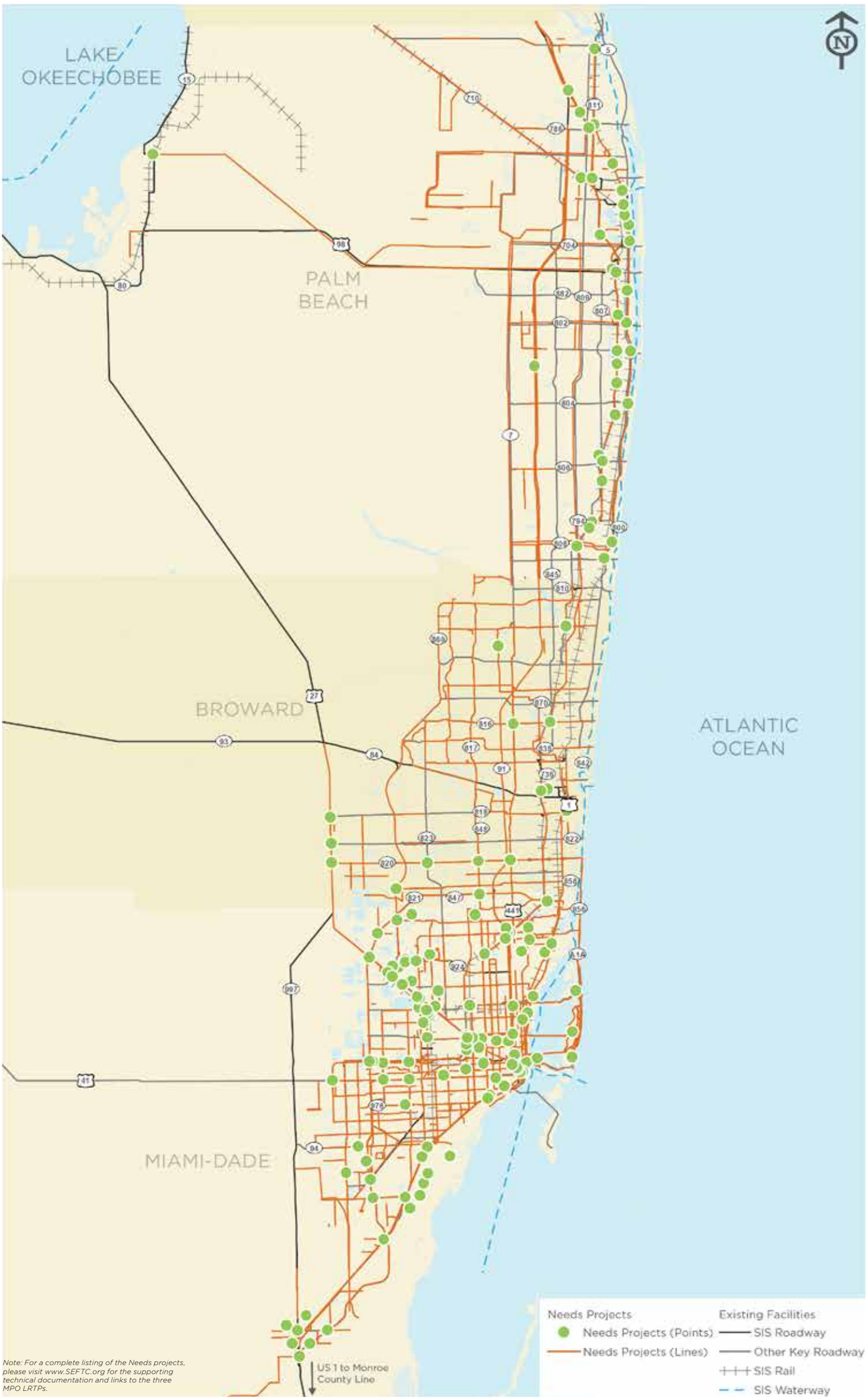


FIGURE 30
SOUTHEAST FLORIDA BASELINE NEEDS NETWORK



TRANSIT NETWORK ENHANCEMENTS

The Needs network adds over 2,700 route miles of transit services on top of what is included in the E+C network. This includes over 400 route miles of additional rail service and 1,700 route miles of additional premium bus service. Based on model runs, the region expects to see an increase of over 160,000 transit boardings in 2040.

FIGURE 31
TRANSIT SNAPSHOT ROUTE MILES ADDED

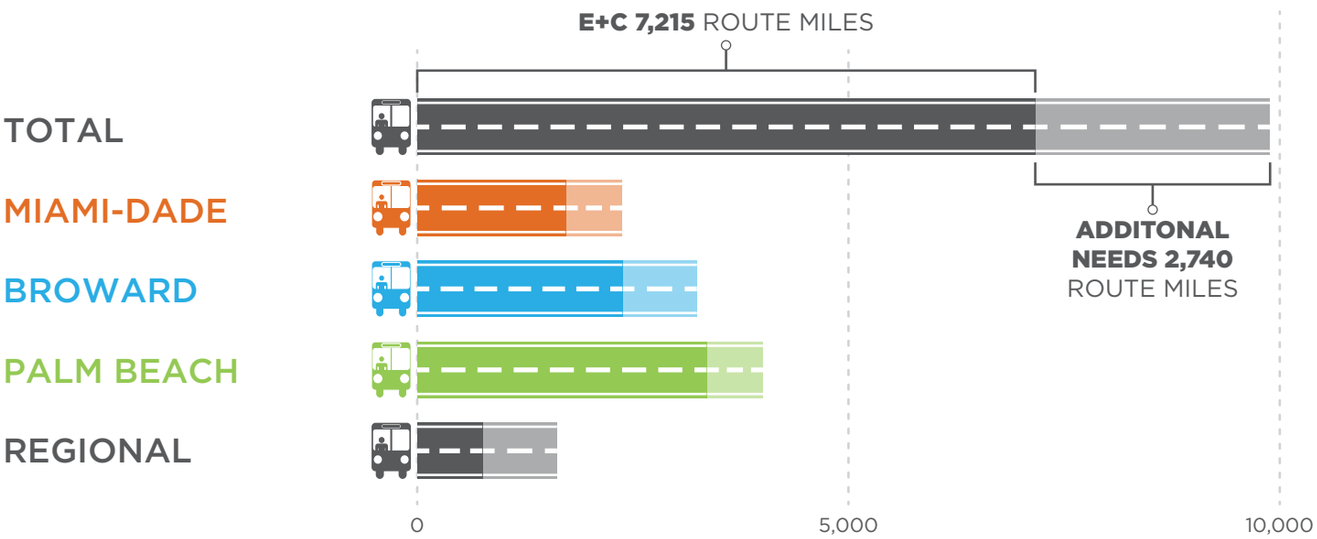
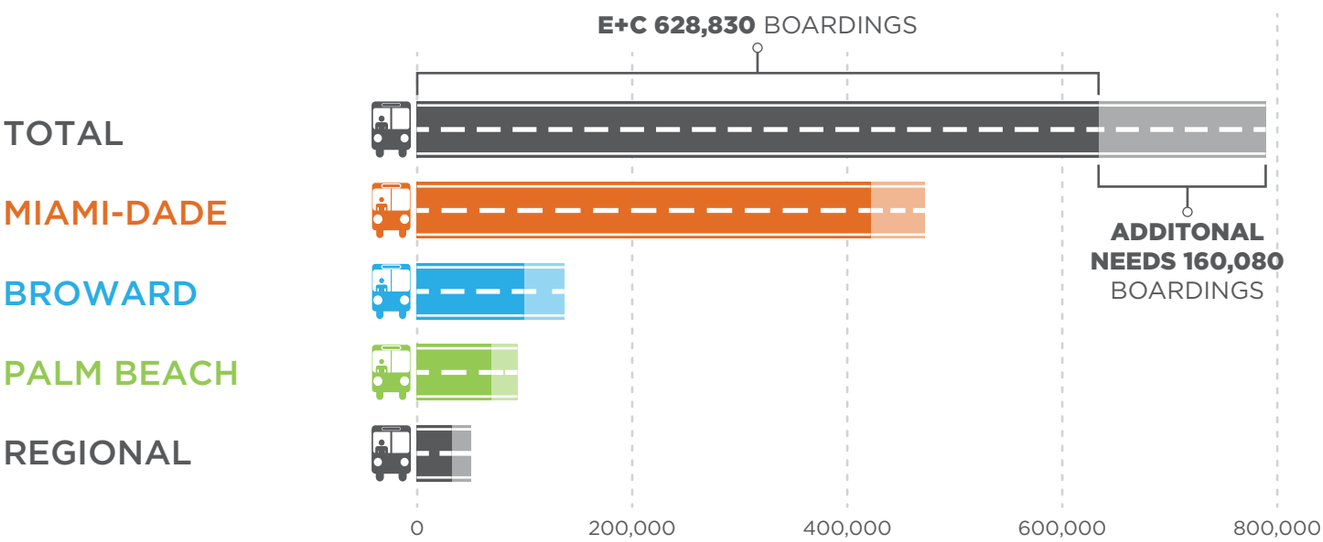


FIGURE 32
TRANSIT SNAPSHOT FORECAST TRANSIT BOARDINGS



TRAVEL BEHAVIOR CHANGE

To better understand the impact that the implementation of the Needs network might have, the model predictions of the E+C network and the Needs network for the year 2040 were compared. Based on the model predications, average trip length will increase slightly in all three counties utilizing the Needs network in comparison to the E+C network. Despite the added roadway needs projects, the transit mode share in each jurisdiction and region wide is forecast to increase by a small margin. As a region, vehicle-miles traveled (VMT) is estimated to increase by approximately 1.2 percent; vehicle-hours traveled (VHT) decreased by 2.3 percent, with Miami-Dade demonstrating the largest decrease.

It should be noted that the percent increase in VMT in the model projections compares to the percent increase in population and jobs projected for the region by 2040. However, as with all model projections, the projections have the potential to over project VMT and under project transit ridership and non-motorized transportation. This is especially true now, considering the changes viewed in the historic pattern for VMT, which has declined over the past several years. Additionally, changing demographics and travel preferences; evolving land use and development patterns; advances in technology involving vehicles; and other factors may affect people's work and lifestyles that may not be captured in the model.

TABLE 08
SUMMARY OF VMT BY JURISDICTION, E+C AND NEEDS NETWORK MODEL RUNS

JURISDICTION	E+C NETWORK	NEEDS NETWORK
Palm Beach	39,203,950	39,910,166
Broward	44,897,891	45,017,301
Miami-Dade	54,902,763	55,771,777
TOTAL	139,004,603	140,699,243

TABLE 09
SUMMARY OF CHANGE IN VMT BETWEEN E+C AND NEEDS NETWORK MODEL RUNS

JURISDICTION	LIMITED ACCESS	HIGH SPEED ARTERIAL	LOW SPEED ARTERIAL	ALL FACILITY
Palm Beach	4.1%	-0.6%	1.0%	1.8%
Broward	1.2%	-0.4%	-0.5%	0.3%
Miami-Dade	8.1%	-3.6%	-2.4%	1.6%
TOTAL	4.6%	-1.5%	-1.7%	1.2%

TABLE 10
SUMMARY OF CHANGE IN VHT BETWEEN E+C AND NEEDS NETWORK MODEL RUNS

JURISDICTION	LIMITED ACCESS	HIGH SPEED ARTERIAL	LOW SPEED ARTERIAL	ALL FACILITY
Palm Beach	1.5%	-2.6%	-1.6%	-1.0%
Broward	0%	-1.3%	-1.5%	-0.9%
Miami-Dade	1.9%	-6.6%	-6.1%	-4.0%
TOTAL	1.2%	-3.6%	-5.1%	-2.3%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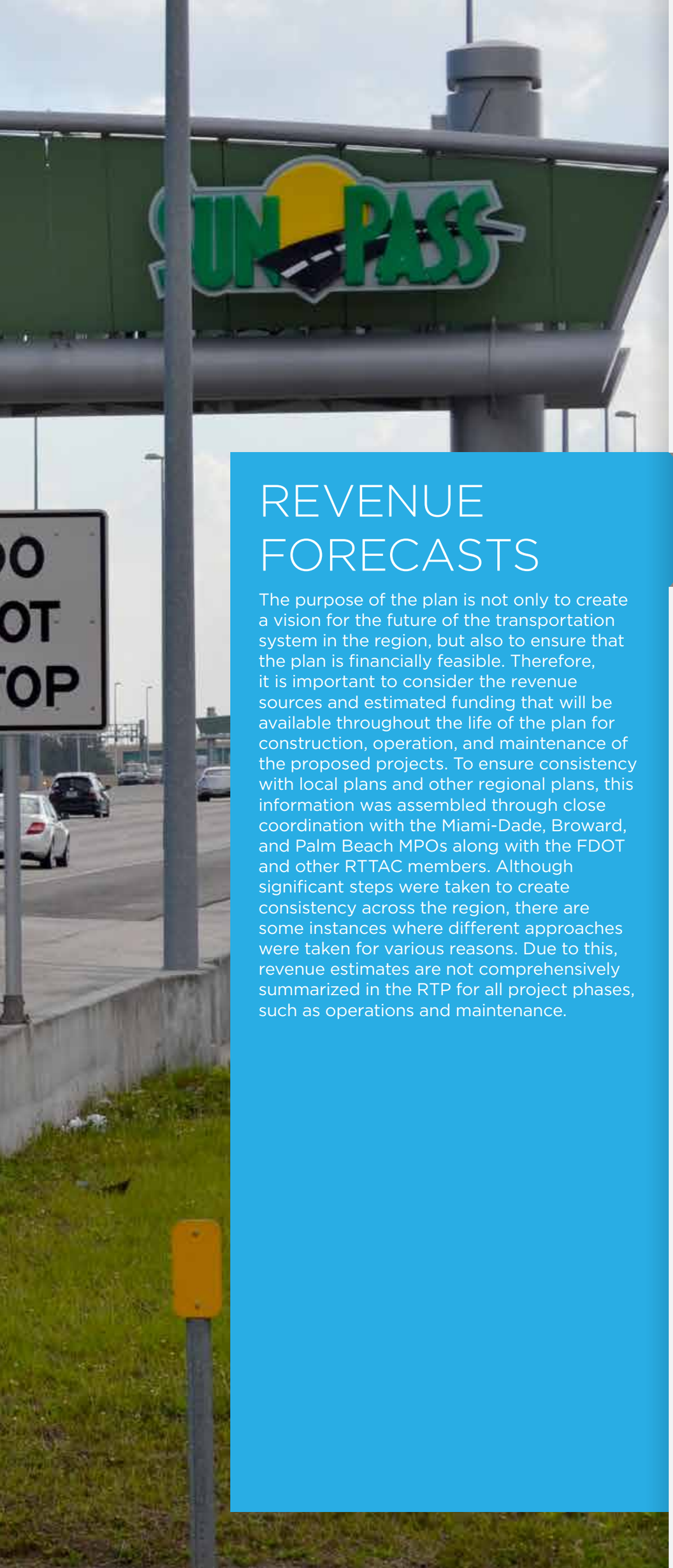


SECTION

11

REVENUE FORECASTS

The purpose of the plan is not only to create a vision for the future of the transportation system in the region, but also to ensure that the plan is financially feasible. Therefore, it is important to consider the revenue sources and estimated funding that will be available throughout the life of the plan for construction, operation, and maintenance of the proposed projects. To ensure consistency with local plans and other regional plans, this information was assembled through close coordination with the Miami-Dade, Broward, and Palm Beach MPOs along with the FDOT and other RTTAC members. Although significant steps were taken to create consistency across the region, there are some instances where different approaches were taken for various reasons. Due to this, revenue estimates are not comprehensively summarized in the RTP for all project phases, such as operations and maintenance.

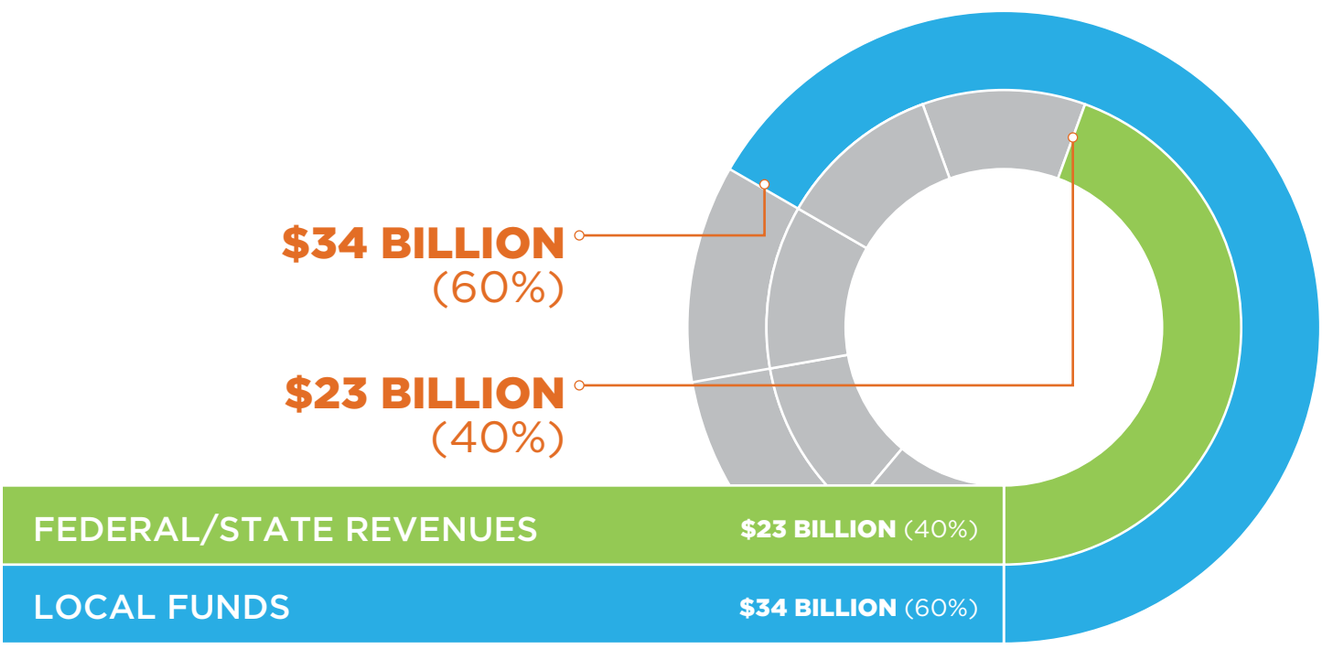
HOW MUCH REVENUE DOES THE REGION ANTICIPATE FOR TRANSPORTATION?

Combining Federal, State and local revenues for three MPOs indicates the Southeast Florida region anticipates approximately $57 billion to be available in a 21-year time frame between Fiscal Year (FY) 2020 and FY 2040. Local revenues contribute 60 percent of the total revenues. Out of the $34 billion local revenues, over $28 billion will be allocated on Operations and Maintenance (O&M) expenses of local projects.

TABLE 11
SUMMARY OF TOTAL ESTIMATED REVENUES BY FUNDING SOURCE (IN MILLIONS)

TOTAL REVENUES	21-YEAR TOTAL (FY 2020 - 2040)			
	MIAMI-DADE	BROWARD	PALM BEACH	SOUTHEAST FLORIDA REGION
Federal/State Funds	$13,147	$5,552	$4,296	$22,995
Local Revenues	$28,324	$2,117	$3,773	$34,214
TOTAL	$41,471	$7,669	$8,069	$57,208

ESTIMATED REVENUES BY FUNDING SOURCE



HOW MUCH DOES THE REGION NEED?

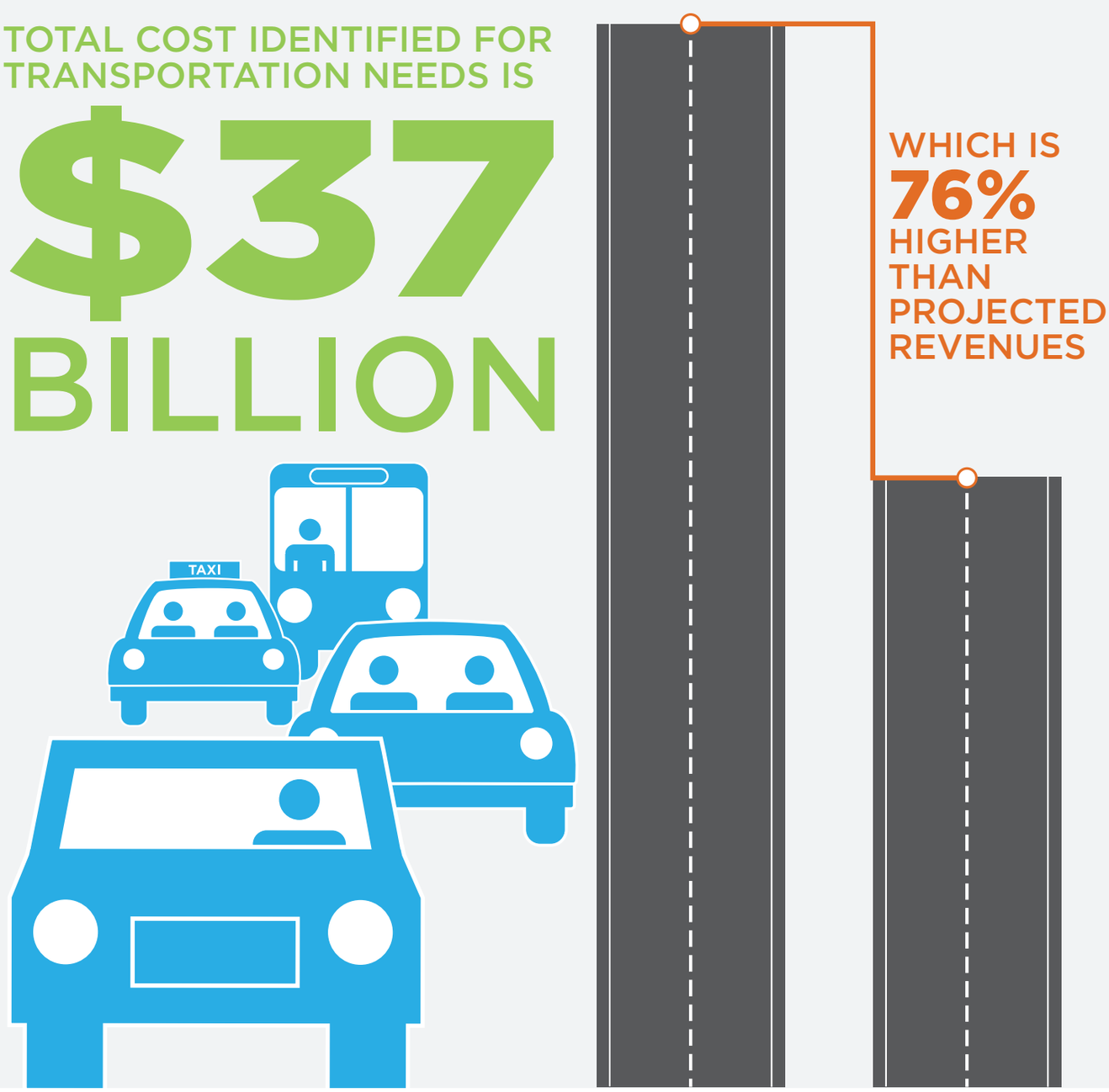
The total capital costs for transportation project needs identified through the MPO long range plans in the region amount to $37 billion in 2013 dollars. Converting the $57 regional revenues into 2013 dollars, the total revenues available for capital spending is approximately $21 billion. There is a capital funding gap of $16 billion in the region. Adding the O&M costs of these capital needs, the funding shortage can easily double the $16 billion. Clearly, it will only be possible to implement a small portion of the projects identified to achieve the region's vision for the future of the transportation system using the financial resources discussed here. Therefore, new revenue sources will be required to address any further regional mobility needs.

TABLE 12
SUMMARY OF TOTAL FUNDING SOURCE NEEDS (IN MILLIONS)

TOTAL NEEDS	21-YEAR TOTAL (FY 2020 - 2040) ($2013 IN MILLIONS)				
	MIAMI-DADE	BROWARD	PALM BEACH	MULTI-COUNTY[1]	SOUTHEAST FLORIDA REGION
TOTAL	$23,918	$9,543	$3,843	$838	$37,304

[1] *Multi-County Costs represent the Tri-Rail Coastal Link, a regional project extending from Miami-Dade County to Palm Beach County*

TOTAL COSTS IDENTIFIED FOR TRANSPORTATION PROJECT NEEDS



2040 REVENUE SOURCES AND PROJECTIONS

The following sections provide further detail on the development of revenue projects summarized above.

FEDERAL/STATE FUNDING SOURCES AND ESTIMATES

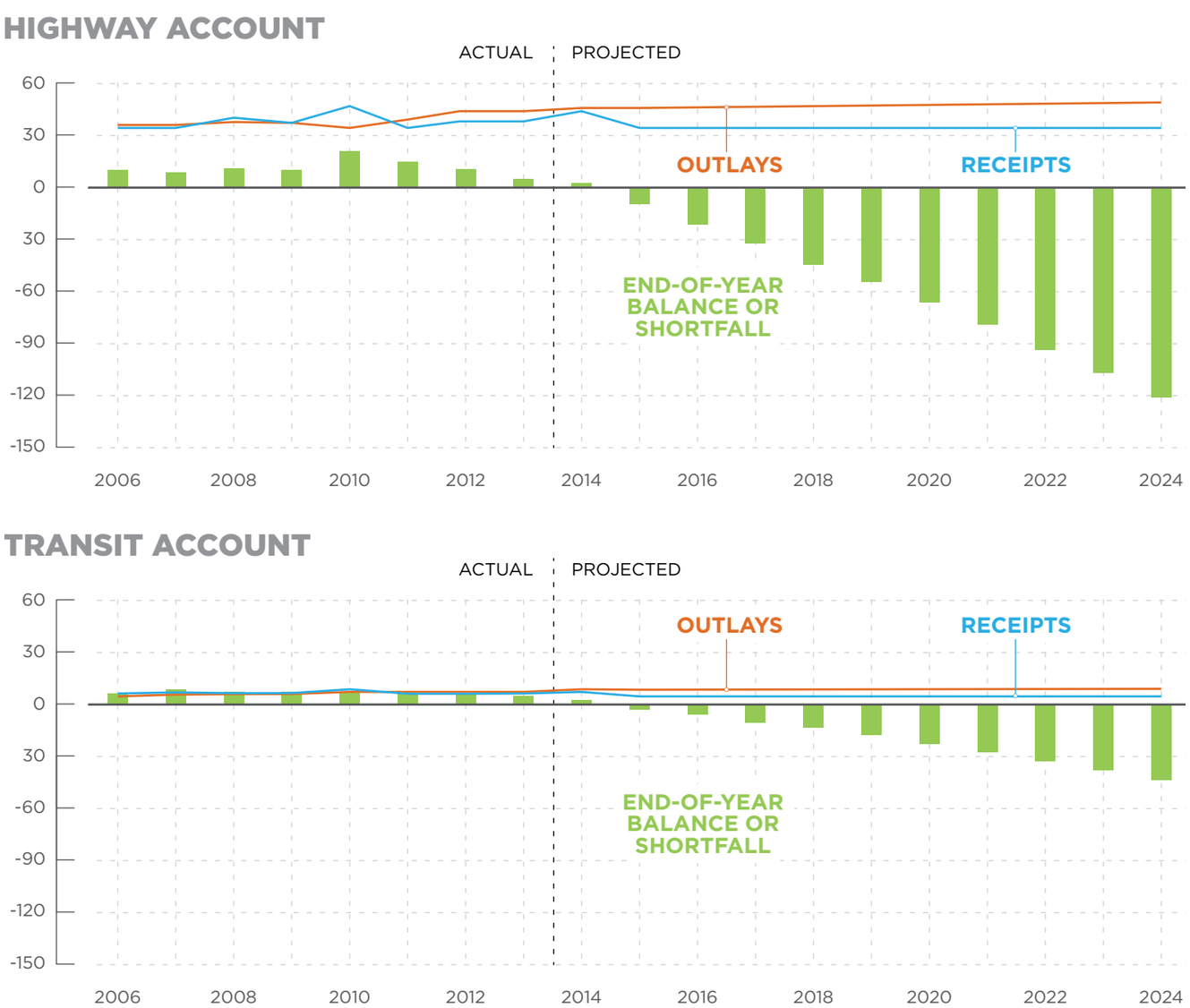
The Federal and State revenue forecasting process and guidelines for the State of Florida were explained in the 2040 Revenue Forecast Handbook and its supplements. All three MPOs used the revenue resources documented in the handbook and supplements to identify the Federal and State revenues available to them. Federal and State revenues received by the three MPOs were allocated using formulas and are consistent in their funding categories.

HIGHWAY TRUST FUND (HTF)

Federal funding for transportation is derived from highway excise taxes on motor fuel and truck-related taxes on truck tires, sales of trucks and trailers, and heavy vehicle use. Excise taxes on gasoline and other motor fuels account for more than 85 percent of all receipts to the Federal HTF.

According to estimates from Congressional Budget Office (CBO), annual receipts from highway taxes are projected to stay at $38 billion or $39 billion each year between 2015 and 2025; spending of the HTF has exceeded the fund's revenues by $64 billion over the past eight years. According to the CBO's projection, between 2016 and 2025, the total shortfall of highway and transit account amounts to $169 billion.

FIGURE 33
RECEIPTS, OUTLAYS, AND BALANCE SHORTFALL FOR THE HIGHWAY TRUST FUND UNDER CBO'S APRIL 2014 BASELINE (IN BILLIONS)

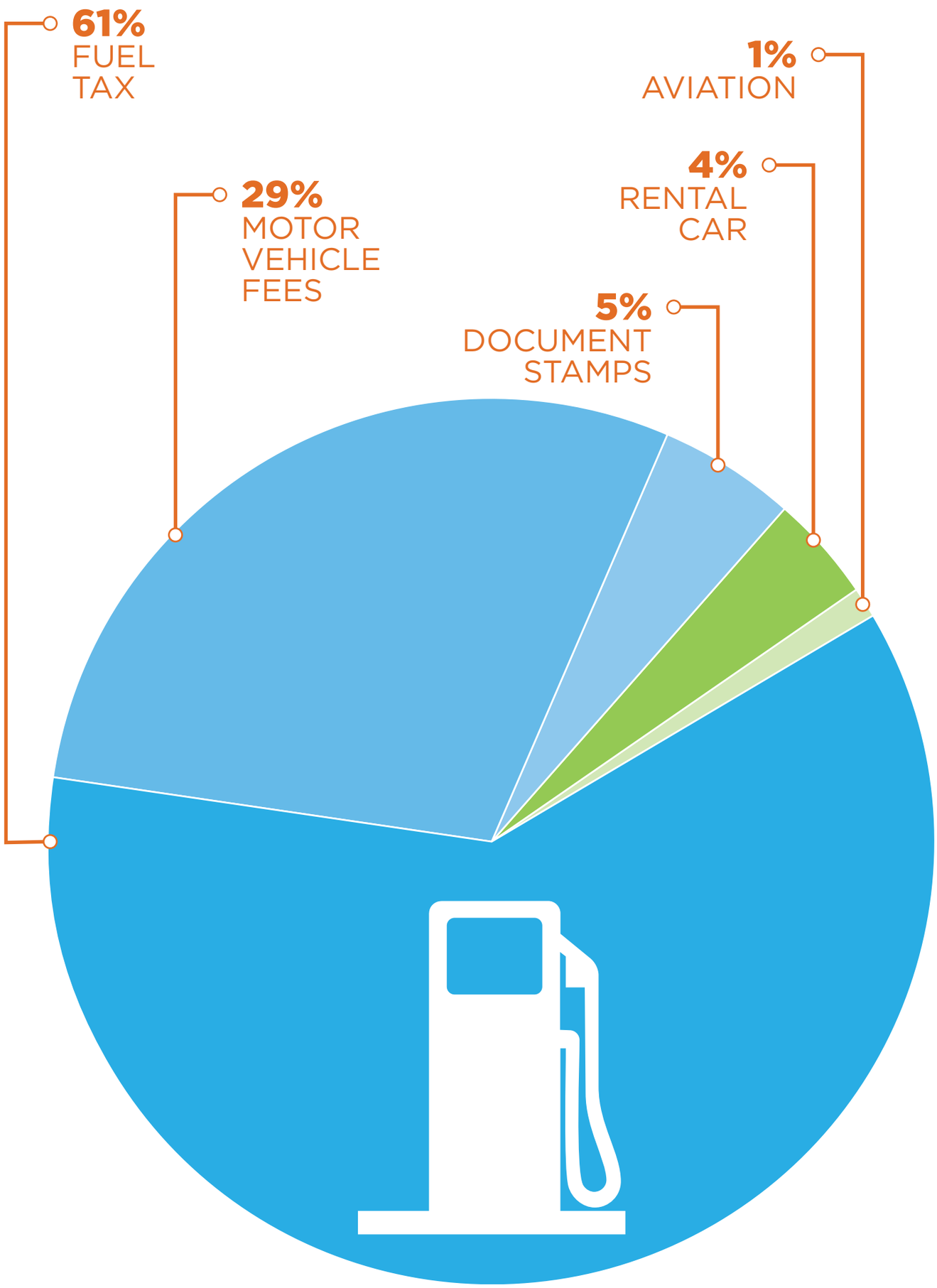


Source: Congressional Budget Office

STATE REVENUE SOURCES

In Florida, there are five revenue sources that go into the State Transportation Trust Fund (STTF): fuel tax, motor vehicle fees, document stamps, rental car surcharges, and aviation fuel tax. Revenues from fuel tax, the largest source, contributed to 61 percent of the state transportation funding in FY 2013.

FIGURE 34
STATE TRANSPORTATION REVENUE SOURCES (FY 2013)



Source: Transportation Funding Sources Presentation, FDOT

FEDERAL/STATE FUNDING PROGRAMS, AND REVENUE ESTIMATES

SIS HIGHWAYS CONSTRUCTION AND RIGHT-OF-WAY (ROW)

This funding program is used to fund construction, improvements, and associated ROW on SIS highways (i.e., Interstate, the Turnpike, other toll roads, and other facilities designed to serve interstate and regional commerce, including SIS Connectors).

OTHER ARTERIALS CONSTRUCTION AND ROW

This funding program is used to fund construction, improvements, and associated ROW on State Highway System roadways not designated as part of the SIS. This program also includes funding for the Economic Development Program, the County Incentive Grant Program, the Small County Road Assistance Program, and the Small County Outreach Program. Generally, funds are distributed by statutory formula.

DISTRICTWIDE STATE HIGHWAY SYSTEM (SHS) OPERATIONS AND MAINTENANCE (O&M) FUNDS

This funding program is used to provide financial assistance to activities to support and maintain transportation infrastructure once it is constructed and in place. Only districtwide estimates were provided by FDOT.

TMA FUNDS

These funds are flexible funds, distributed to Transportation Management Areas, as defined by MAP 21. They are the same as "SU" funds in the five-year Work Program. To plan for the use of TMA funds, MPOs are encouraged to work with FDOT District Office to determine how to reflect TMA funds in the long range plan.

TRANSPORTATION ALTERNATIVES (TA) FUNDS

As defined by MAP 21, TA funds are used to assist MPOs in developing their plans. The TA program includes TALU – estimates of TA funds allocated for TMAs; TALL – estimates of funds for areas with population under 200,000; and TALT – for any areas of the State. The three MPOs have been provided estimates of TALU and districtwide TALT for FY 2019 through 2040.

STATE NEW STARTS TRANSIT FUNDS

State New Starts funds are from the transportation proceeds of the Documentary Stamp Tax. Annually, 10% of the transportation proceeds is allocated for major new transit capital projects in metropolitan areas. MPOs have been provided statewide estimates of New Starts funds for 2019 through 2040.

TRANSPORTATION REGIONAL INCENTIVE PROGRAM (TRIP) FUNDS

TRIP funds are from the transportation proceeds of the Documentary Stamp Tax. Annually, after allocations to the Small County Outreach Program (10 percent) and the New Starts Transit Program (10 percent), 25 percent of the remaining Documentary Stamps Tax funds are allocated annually for TRIP for regional transportation projects in "regional transportation areas." The first $60 million of funds allocated to TRIP are allocated annually to the Florida Rail Enterprise. MPOs have been provided estimates of districtwide TRIP funds for 2019 through 2040. TRIP will fund up to 50% of project costs.

TRANSIT

This funding program is used to provide technical and operating/capital assistance to transit, paratransit, and ridesharing systems.

FLORIDA'S TURNPIKE ENTERPRISE

This is not a funding program. Florida's Turnpike Enterprise (FTE) is part of the Florida Department of Transportation, an agency of the State of Florida. FTE manages a self-supporting operation financed primarily with tolls and concession revenue with no reliance on other FDOT revenues to pay for its operations and maintenance and debt service. FTE forecasted toll revenues for the next ten years for each facility and projected its annual systemwide O&M costs through 2040. FTE does not project the balancing of revenues and expenditures at the county-by-county level; it only provided systemwide values. Miami-Dade and Palm Beach Counties both estimated the future revenues of Florida's Turnpike. Broward County did not include Turnpike's revenues in its 2040 LRTP update.

LOCAL REVENUE SOURCES AND ESTIMATES

Local revenue resources available for transportation investments vary from county to county, based on local sales and other taxes, and County Commission actions. The three MPOs and their LRTP teams collected local revenue data and made projections out to FY 2040 as documented in their LRTPs.

STATE-COLLECTED MOTOR FUEL TAXES DISTRIBUTED TO LOCAL GOVERNMENTS

The State of Florida collects a fuel excise tax of 4 cents per gallon to be distributed to local governments. The Constitutional Fuel Tax is set at 2 cents per gallon. The first call on the proceeds of Constitutional Fuel Tax is to meet the debt service requirements, if any, on local bond issues backed by the tax proceeds. The balance, called the 20 percent surplus and the 80 percent surplus, is credited to the counties' transportation trust funds. The County Fuel Tax is set at 1 cent per gallon, and it is distributed by the same formula as the Constitutional Fuel Tax. The Municipal Fuel Tax is also set at 1 cent per gallon. Revenues from this tax are transferred into the Revenue Sharing Trust Fund for Municipalities. Miami-Dade and Palm Beach MPOs did not include their estimates of the Municipal Fuel Tax in their local revenue estimates. Miami-Dade County projected 1.5 percent annual growth rate in gas tax revenues for FY 2015 and 2016 and 0.5 percent growth from FY 2017 onwards. The Broward MPO has assumed that the revenues from these motor fuel taxes decline by a compound annual growth rate of -1.3 percent from 2019 through 2040. Palm Beach County's gas taxes are currently budgeted at $4.9 million per year and were assumed at this rate through the year 2040.

LOCAL OPTION TRANSPORTATION TAXES AND REVENUE

County governments in Florida are authorized to levy up to 12 cents per gallon of fuel through three local option fuel taxes for transportation needs: the Ninth-cent Fuel Tax (1 cent per gallon of gasoline and diesel), the 1 to 6 Cents Fuel Tax, and 1 to 5 cents Fuel Tax. In addition to the option fuel taxes, 31 counties in Florida - including Miami-Dade, Broward, and Palm Beach Counties - are also eligible to levy the Charter County and Regional Transportation System Surtax (Charter County Surtax) – a discretionary sales surtax. Miami-Dade County is the only one that levies the Charter County Surtax among the three counties. Miami-Dade County is also the only County that levies 3 Cents instead of the full 5 Cents of the 1 to 5 Cents Fuel Tax among the three. Miami-Dade MPO assumed that the Charter County Surtax will grow at 3 percent in 2015-2019 and 4.5 percent from thereon. The MPOs use the same assumptions for the Local Option Fuel Taxes and State-collected Motor Fuel Taxes.

ROAD IMPACT FEES/TRANSPORTATION CONCURRENCY FEES

Both Miami-Dade and Palm Beach Counties levy Road Impact Fees. Broward County levies Transportation Concurrency fees. Miami-Dade MPO assumes that the road impact fees will grow at the same rate as the population growth; Broward MPO assumes that the transportation concurrency fees will remain flat through the term of its 2040 LRTP; Palm Beach MPO assumes that the road impact fees will grow based on the housing forecasts through 2035 – no impact fees were assumed beyond 2035 since year 2035 is referenced as built-out.

OTHER MISCELLANEOUS LOCAL REVENUE SOURCES

Miami-Dade Transit revenue sources also include Federal Grants, General Funds Support and Capital Reimbursement, and Operating revenues (farebox, etc.). Palm Beach MPO also included Ad Valorem Tax and transit farebox revenues into its estimates. Broward County MPO did not identified additional local revenue sources besides the three mentioned above. The total regional revenues by funding sources for the period of FY 2020 – 2040 are summarized in Table 13.

TABLE 13
TOTAL REGIONAL REVENUE ESTIMATES BETWEEN FY 2020-2040 ($YOE IN MILLIONS)*

REVENUE SOURCES	FY 2020[1]			FY 2021-25		
	MIAMI-DADE	BROWARD	PALM BEACH	MIAMI-DADE	BROWARD	PALM BEACH
FDOT Capital						
SIS Highways/FIHS Construction & ROW	$360	$89	$0	$374	$963	$222
Other Arterial & ROW	$96	$70	$51	$429	$314	$227
Other Arterial & ROW-PE[2]	$21	$15	$11	$94	$69	$50
TA-TALU	$3	$2	$2	$17	$12	$8
Transportation Management Area (TMA)	$34	$24	$17	$168	$118	$85
Florida Turnpike Revenues for Capital				$42		$869
Transit	$47	$34	$25	$241	$177	$127
Subtotal (excluding Districtwide and Statewide funding)	$561	$235	$105	$1,365	$1,653	$1,589
Local Option Transportation Taxes						
Constitutional Fuel Tax	$15	$14	$9	$77	$66	$46
County Fuel Tax	$8	$6	$5	$42	$29	$25
Municipal Fuel Tax		$12			$57	
Ninth-cent LOGT	$11	$8	$54	$54	$39	$271
1 to 6 Cents LOGT	$42	$46		$211	$217	
1 to 5 Cents LOGT	$18	$33		$91	$154	
Charter County Surtax	$252			$1,467		
Other Miscellaneous Funding Sources						
Concurrency/Impact Fees	$43	$4	$38	$231	$20	$137
MDX Revenues Available for Capital	$44			$240		
Ad Valorem Tax			$41			$212
Tri-Rail			$42			$215
Federal Grants	$57			$320		
Operating Revenues (Farebox and other)	$145		$15	$828		$80
General Fund Support and Capital Reimbursement	$276			$1,565		
Subtotal (Local Revenues)	$909	$122	$204	$5,126	$581	$985
Combined Total[3]	$1,470	$357	$309	$6,491	$2,234	$2,574
FDOT O&M[4]						
District SHS O&M (Districtwide)	$145	$307		$740	$1,566	
FDOT Informational						
TA-TALT (Districtwide)	$3	$5		$16	$23	
TRIP (Districtwide)	$0	$1		$6	$9	
State New Starts		$32			$174	
Local - O&M[5]						
Local Roadway O&M	$60	$19	$56	$307	$105	$282
Local Transit O&M	$569	$193	$67	$3,290	$1,008	$346

** Amount shown in the table may not total due to rounding.*

(1) Revenue estimates for FYs 2019-2020 were provided in The Supplements to 2040 Revenue Forecast Handbook provided to the three MPOs by FDOT District Four and Six. It's assumed here that the revenues for FY 2020 are 50% of the revenues for FY 2019 – 2020, with the exception of SIS Highways Construction & ROW.

(2) Assume 22% of the amount of Other Arterial and ROW is available at FDOT for PE.

(3) The Combined Total does not include the District SHS O&M and the amount shown under FDOT – Informational.

	FY 2026-30			FY 2031-40			FY 2020-40			
	MIAMI-DADE	BROWARD	PALM BEACH	MIAMI-DADE	BROWARD	PALM BEACH	MIAMI-DADE	BROWARD	PALM BEACH	SEFL REGION
	$2,372	$697	$765	$3,592	$848	$194	$6,698	$2,598	$1,182	$10,477
	$405	$297	$214	$887	$650	$469	$1,817	$1,331	$960	$4,108
	$89	$65	$47	$195	$143	$103	$400	$293	$211	$904
	$17	$12	$8	$33	$23	$17	$69	$49	$35	$153
	$168	$118	$85	$336	$237	$171	$706	$497	$358	$1,561
	$413			$1,930		$113	$2,385		$982	$3,367
	$253	$186	$134	$531	$389	$281	$1,072	$785	$567	$2,424
	$3,717	$1,374	$1,254	$7,504	$2,290	$1,347	$13,147	$5,552	$4,296	$22,995
	$79	$60	$46	$164	$110	$91	$335	$250	$191	$776
	$43	$26	$25	$89	$48	$49	$182	$109	$103	$394
		$52			$96		$0	$217	$0	$217
	$55	$35	$271	$114	$65	$542	$234	$147	$1,137	$1,517
	$216	$199		$449	$365		$918	$826	$0	$1,744
	$94	$138		$195	$243		$398	$568	$0	$966
	$1,825			$5,094			$8,638			$8,638
	$243	$20	$72	$521	$40	$43	$1,038			$1,038
	$401			$1,269			$1,954			$1,954
			$224			$491			$967	$967
			$226			$493			$977	$977
	$372			$949			$1,698			$1,698
	$961		$90	$2,449		$213	$4,383		$398	$4,781
	$1,861			$4,846			$8,548			$8,548
	$6,150	$531	$953	$16,139	$968	$1,921	$28,324	$2,117	$3,773	$34,214
	$9,867	$1,905	$2,207	$23,643	$3,257	$3,269	$41,471	$7,669	$8,069	$57,208
	$811	$1,716		$1,781	$3,770		$3,477	$7,359		$10,836
	$16	$23		$32	$47		$68	$98		$165
	$6	$9		$13	$18		$25	$37		$62
	$174			$349			$729			$729
	$314	$123	$282	$652	$315	$531	$1,333	$562	$1,150	$3,045
	$3,995	$1,206	$368	$10,477	$3,087	$812	$18,331	$5,493	$1,593	$25,417

(4) The amount of funds shown for District SHS O&M is for an entire FDOT District. FDOT District 4 is consisted of 5 counties: Broward, Palm Beach, Martin, St. Lucie, and Indian River. FDOT District 6 is consisted of 2 counties: Monroe and Miami-Dade.

(5) Local O&M revenues are already included in the subtotal of local revenues.

POTENTIAL FUNDING SOURCES

In recent years, Southeast Florida region has seen a recovery in many aspects of the economy. However, as presented in the regional needs and revenues, the capital cost of the needs of the region is approximately $37 billion, while the total revenues availabl;e for capital improvements total $21 billion. Given the increasing building costs, increasing O&M costs of an ever expanding transportation infrastructure network, and expected decrease in gas tax revenues, all three counties face difficult decisions about the funding of their transportation needs. In light of expected large funding gap, Miami-Dade, Broward, and Palm Beach MPOs all identified alternative revenue sources in their LRTP to fund additional transportation needs. Some of the revenue sources are common across three counties. It is important to note that each of these funding sources presents political challenges for each county, and individually some of the options also face legal, administrative, and even financial drawbacks. Some of the sources may not be significant enough to provide enough revenues given their small revenue bases. Others, such as income and employer taxes, VMT taxes, require a high threshold of political support and are not likely to be pursued at the county level. Considering all perspectives, the Charter County Transportation Surtax may be the most feasible funding source for each county in the near-term.

TABLE 14
ALTERNATIVE REVENUE SOURCES

TOTAL NEEDS	MIAMI-DADE	BROWARD	PALM BEACH
(Additional) Sales Tax (Charter County Surtax)	■	■	■
Income/Payroll/Employer Tax		■	■
Property Tax/Ad Valorem Tax	■		■
Personal Property Tax		■	
Increase 1 to 5 Cents Fuel Tax to 5 Cents (Miami-Dade)	■		
Motor Fuel Tax Index		■	
Motor Fuel Sales Tax		■	
Additional Parking Fee	■		■
Transit Fares			■
VMT Tax	■	■	
Fuel/Motor Vehicle Tag Fee Tax			■
Tourism Taxes/Fees	■	■	■
Tolling		■	■
Congestion/Value Pricing		■	■
Cordon Pricing		■	
Transportation Utility Fees		■	
Container Fees		■	
Usage Fees		■	
Tobacco, Alcohol, Gambling Taxes		■	
Advertising Revenue/Naming Rights		■	
Value Capture/Road or Transit Impact Fees		■	■
Lottery Tax			■
Luxury Tax			■
Surcharge Fees			■

PUBLIC PRIVATE PARTNERSHIPS

Public-private partnerships (P3s) are contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects. Typically, this participation involves the private sector taking on additional project risks, such as design, construction, finance, long-term operation, and traffic revenue. At present, there are more than 40 current or anticipated P3 projects involving private financing in the U.S portfolio.[30] Generally, the value of each of these P3s ranges from a few hundred million dollars to more than a billion dollars. It is important to note that P3s are a procurement option, not a revenue source. Although P3s may increase financing capacity and reduce costs, the public sector still has to identify a source of revenue to pay for the project. However, with P3s, the public sectors can avoid making any payments before substantial completion of the project. The I-595 Express Project in Broward County and Port Miami Tunnel Project in Miami-Dade County are examples of such a payment structure.

P3 options can be categorized into (as shown in Figure 35 below): 1) New Build Facilities (Private Contract Fee Services, Design Build, Design Build Operate Maintain, Design Build Finance, and Design Build Finance Operate Maintain Concession) and 2) Existing Facilities (OM Concession, Long Term Lease).

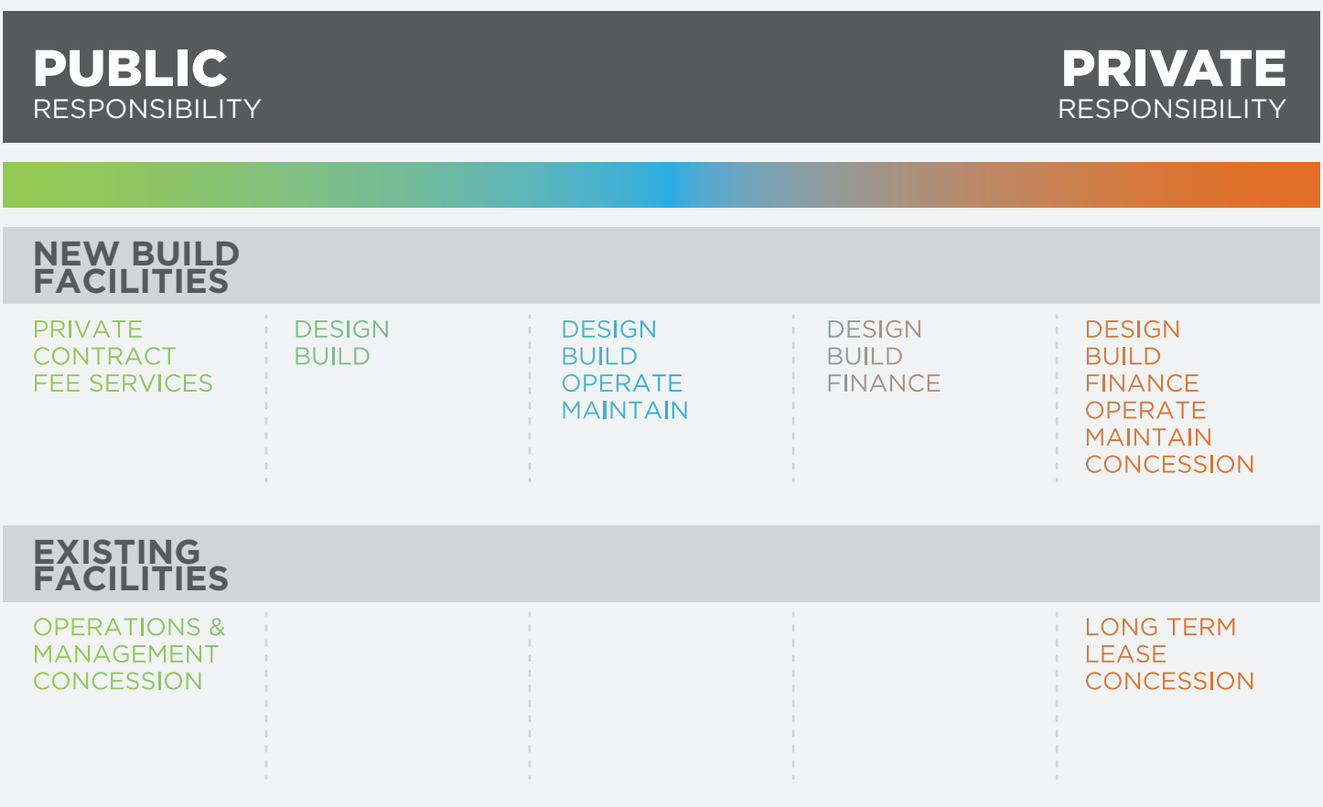
P3s can provide access to private capital, reduce costs borne by transportation agencies, accelerate project delivery, shift project risk, spur innovation, and provide for more efficient management. Long-term concessions can improve asset management – the same party that constructs the project is responsible for long-term operation. This creates incentives to build a higher quality facility that is easier to maintain.

There are also potential limitations associated with P3s that should be taken into consideration:

- Requires considerable administrative cost and time to develop, analyze, procure, and monitor.
- Although P3s can offer access to capital, they do not provide public agencies with new revenue; in fact, P3s need a revenue stream to work. Payback provisions, such as those in place for the I-595 expansion and PortMiami Tunnel P3 projects, can also impact funding after the project is constructed.
- May not be the most cost-effective or appropriate procurement model for projects if the public sector can deliver better value without it.

30 http://www.fhwa.dot.gov/ipd/p3/defined/, accessed Feb 2015.

FIGURE 35
STATE TRANSPORTATION REVENUE SOURCES (FY 2013)



Source: Transportation Funding Sources Presentation, FDOT

SECTION

12

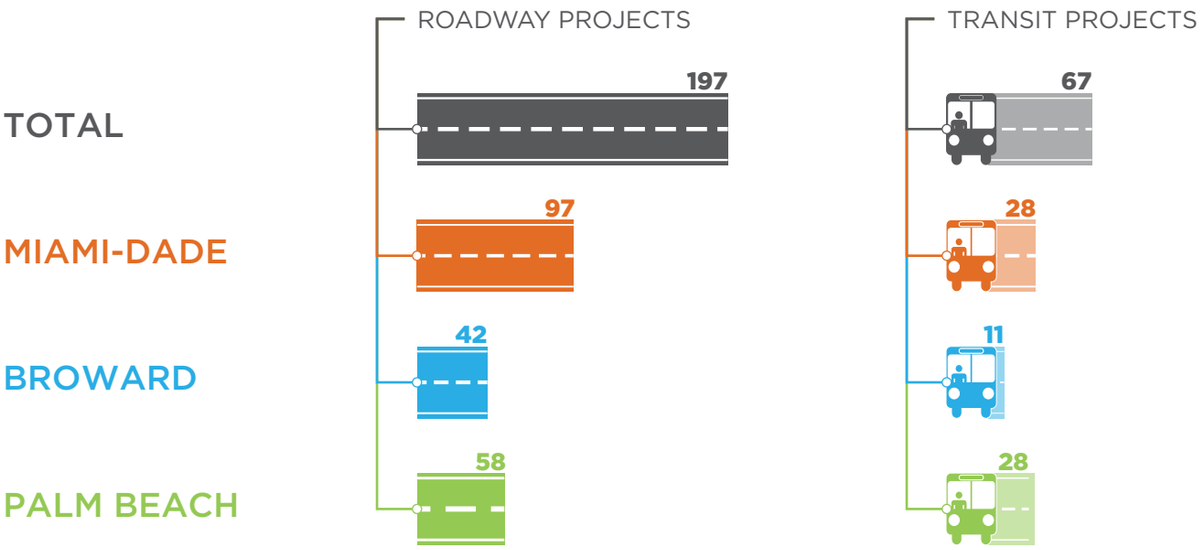
FUNDED INVESTMENTS

Given limited financial resources, our region cannot afford to build, maintain, and operate all of the “needs” projects summarized in Section 10. In order to establish a list of most desirable projects that are also affordable, each MPO developed a priority list of multimodal projects that could be implemented within the planning time horizon from identified funding sources. Based on these priorities, a list of cost feasible projects was created which focuses solely on the regional system.

A COST FEASIBLE PLAN

The Cost Feasible Plan (CFP) project list is a subset of the Needs Plan project list (although some project refinements were allowable in arriving at the final Cost Feasible Plans). Across the region, a total of 264 regional cost feasible projects were identified, including 197 roadway projects and 67 transit projects.

FIGURE 36
SOUTHEAST FLORIDA REGIONAL COST FEASIBLE PROJECTS



Major highway projects in the regional cost feasible network included:

PALM BEACH

- I-95 managed lanes from Linton Blvd. to Broward/Palm Beach county line
- Glades Road widening from Butts Road to NW 10th/University
- SR 7 widening from Okeechobee Blvd. to Belvedere Road

BROWARD

- I-95 managed lanes from Stirling Road to Broward/Palm Beach county line
- Sawgrass Expressway widening from I-595 to Turnpike
- Turnpike widening segments between The Turnpike Extension and Palm Beach county line
- I-595 reversible lanes opening

MIAMI-DADE

- SR-836 managed lane from The Turnpike Extension to 27th Avenue
- SR-826 managed lane/improvements from SR-826 to NW 17th Avenue
- SR-924 Gratigny West Extension from SR-826 to The Turnpike Extension
- The Turnpike Extension multiple segments widening
- SR-997 Krome Avenue Truck Bypass
- US-27 from Krome Avenue to NW 79th Avenue, multiple grade separation intersection

Major transit projects included in the cost feasible plan network included:

REGIONAL

- Tri-Rail Coastal Link on FEC: West Palm Beach to Jupiter
- Tri-Rail Extension along CSX/SR 710 from Mangonia Park to VA Hospital

PALM BEACH

- Express bus on several alignments, including several routes serving West Palm Beach (WPB) Intermodal Center

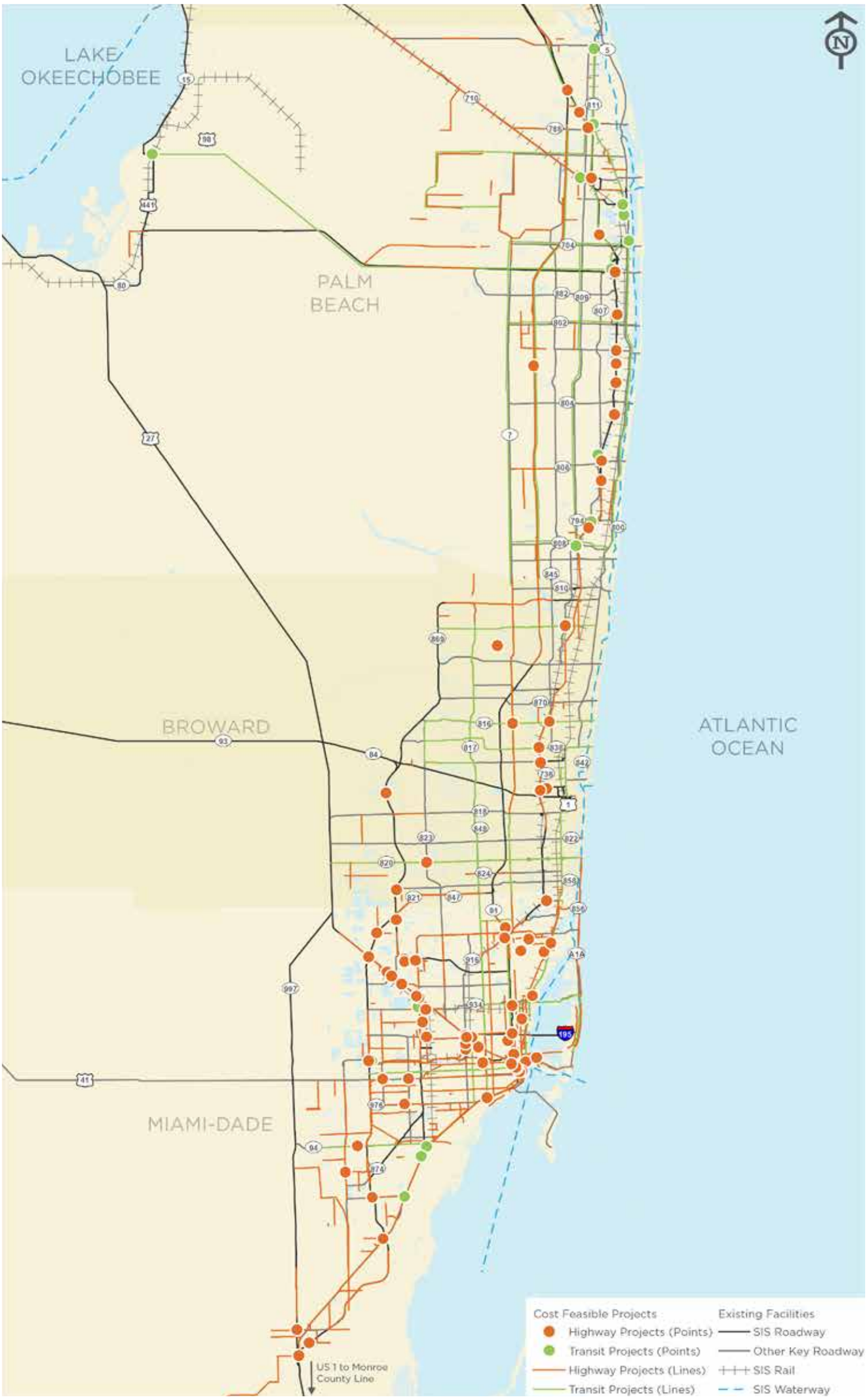
BROWARD

- Express bus from Aventura Mall to Ft. Lauderdale downtown
- Express bus from Golden Glades to Sample Road

MIAMI-DADE

- Downtown Intermodal Terminal
- Dolphin Mall Station PNR/Transit Terminal
- Palmetto Intermodal Terminal
- Enhanced bus on several alignments; additional park-and-ride improvements
- North Corridor BRT from MLK Metrorail Station to NW 215 Street
- Double-track Tri-Rail for Miami River Intermodal Center capacity improvement

FIGURE 37
REGIONAL COST FEASIBLE PROJECTS



REGIONAL FUNDED INVESTMENTS

A series of tables summarize the affordable regional projects for Southeast Florida. For each project a description, limits, capital project cost and funding period are noted. Operations and maintenance (O&M) funding is not indicated for projects requiring those funds due to each MPO handling O&M uniquely within their respective LRTPs. A majority of projects have funding associated with multiple funding periods. For the purposes of organizing the projects herein, projects are assigned a priority period based on when final construction funding was allocated in the individual MPO 2040 LRTP Plans. The priority assignments herein are for organizational purposes only and do not reflect the opinion or formal adoption of the respective MPO Boards. To obtain the formally adopted list of projects by priority, please view the individual MPO 2040 LRTPs.

TABLE 15
FUNDING PERIOD I/PRIORITY I AFFORDABLE PROJECTS

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Miami-Dade	**East-West Corridor (Flager Enhanced Bus)**	Miami Downtown Terminal	FIU-MMC (SW 112 Ave.)
	Golden Glades Interchange: SR-826 (Palmetto)	SR-826 EB Ramp	I-95 NB
	Golden Glades Interchange Improvements	Florida's Turnpike	
	Golden Glades Multimodal Terminal (Phase 1)		
	I-395	I-95	MacArthur Causeway Bridge
	I-75	South of NW 170 St.	Miami-Dade County Line
	I-75 Managed Lanes System	NW 170 St.	South of SR-821 (HEFT) Interchange
	I-75 Managed Lanes System	South of SR-821 (HEFT) Interchange	Miami-Dade County Line
	Implementation of Quiet Zones for All Aboard Florida	Miami-Dade/ Broward County Line	Downtown Miami
	Improvements at SW 312 St. (Campbell) Interchange	SR-821 (HEFT)/ SW 312 St. (Campbell)	
	IRIS Connection	CSX Mainline	FEC Mainline
	Kendall Park-and Ride Facility	SW 127 Ave./SW 88 St. (Kendall)	
	Miami Intermodal Center (MIC) Connection to NW 37 Ave.	Miami Intermodal Center (MIC)	NW 37 Ave.
	Miami River-Miami Intermodal Center (MIC) Capacity Improvement		
	NE 203 St. and NE 215 St.	US-1	West Dixie Highway
	NW 215 St. Transit Terminal Facility	At NW 27 Ave.	
	North Corridor (NW 27 Ave.) Enhanced Bus	Miami Intermodal Center (MIC)	NW 215 St. Terminal
	NW 36 St.	NW 42 Ave. (LeJeune)	US-27 (Okeechobee)
	NW 37 Ave.	North River Dr	NW 79 St.
	NW 57 Ave. (Red)	W 65 St.	W 84 St.

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	FULLY FUNDED IN THE TIP	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
Incremental improvement on PTP corridor	$17.7		√			
Modify interchange	$171.4	√	√			
Interchange improvement	$74.4	√	√			
Modal hub capacity improvements	$51.2	√	√			
Modify interchange	$960.6		√			
ITS Communications	$6.6	√	√			
Managed lanes	$38.9	√	√			
Managed lanes	$108.0	√	√			
19 Intersection for quiet zones in the County	$3.9		√			
Interchange improvements	$4.0	√	√			
Rail capacity project	$8.3	√	√			
Park-and-ride facility with 160 spaces	$0.7	√	√			
New 2 lane road construction	$9.8	√	√			
Double track remaining single track of Tri-Rail near Miami River	$109.7		√			
Intersection improvements, passing track/siding	$43.0	√	√			
Park-and-Ride facility	$3.0	√	√			
Enhanced bus service	$27.0	√	√			
Replace bridge and add lanes	$10.3	√	√			
Add 2 lanes and center turn lane and reconstruct	$17.5	√	√			
Add 2 lanes and reconstruct	$22.6	√	√			

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Miami-Dade	**NW 57 Ave. (Red)**	W 53 St.	W 65 St.
	NW 74 St.	SR-821 (HEFT)	SR-826 (Palmetto)
	SFRTA Metrorail Tri-Rail 79th St. Transfer Station		
	SR-836 (Dolphin)/I-95 Interchange Ramps	NW 12 Ave.	I-95
	SR-821 (HEFT)	SW 88 St. (Kendall)	60 St. Canal Bridge
	SR-821 (HEFT)	SW 40 St. (Bird)	SR-836 (Dolphin)
	SR-821 (HEFT)	SW 288 St.	SW 216 St.
	SR-821 (HEFT)	NW 106 St.	I-75
	SR-821 (HEFT)	SR-836 (Dolphin)	NW 74 St.
	SR-826 (Palmetto) and I-75	Flagler NW 170 St.	NW 154 St. SR 826 (Palmetto)
	SR-826 (Palmetto) and SR 836 (Dolphin) Interchange	North of SW 8 St. (Tamiami) NW 87 Ave.	South of 25 St. NW 57 Ave. (Red)
	SR-836 (Dolphin) Access Ramp	NW 107 Ave.	SR-836 (Dolphin)
	SR-836 (Dolphin) Enhanced Bus*	Miami Intermodal Center (MIC)	SW 147 Ave./SW 8 St. Park-and-Ride
	SR-836 (Dolphin) Improvements	NW 57 Ave.	NW 17 Ave.
	SR-836 (Dolphin) Interchange Modifications at 87 Ave.	SR-836 (Dolphin) West of 82 Ave.	NW 97 Ave.
	SR-874 (Don Shula) Ramp Connector	SW 128 St.	SR-874 (Don Shula)
	SR-874 (Don Shula)/ Killian Parkway Interchange	SR-821 (HEFT)	SW 88 St. (Kendall)
	SR-997 (Krome)	SW 88 St. (Kendall)	One Mile North of SW 8 St. (Tamiami)
	SR-997 (Krome)	SW 136 St.	SW 88 St. (Kendall)
	SR-997 (Krome)	North of SW 8 St. (Tamiami)	MP 2.754
	SR-997 (Krome)	MP 10.953	MP 14.184/US-27 (Okeechobee)
	SR-997 (Krome)	MP 2.754	MP 5.122
	SR-997 (Krome)	MP 5.122	MP 8.151
	SR-997 (Krome)	MP 8.151	MP 10.935
	SR-997 (Krome)	SW 312 St. (Campbell)	SW 296 St.
	SR-997 (Krome)	SW 296 St.	SW 232 St.
	SR-997 (Krome)	SW 232 St.	SW 184 St. (Eureka)
	SR-997 (Krome)	SW 184 St. (Eureka)	SW 136 St.
	SW 107 Ave.	SW 3 St.	West Flagler St.
	SW 107 Ave.	SW 1100 Block	SW 3 St.
	SW 137 Ave.	US-1	SW 200 St.
	SW 137 Ave.	SR-821 (HEFT)	US-1
	SW 152 St.	SW 157 Ave.	SW 147 Ave.
	SW 27 Ave.	US-1	Bayshore Dr

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	FULLY FUNDED IN THE TIP	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
Add 2 lanes and reconstruct	$23.9	√	√			
Add 2 lanes and reconstruct	$8.5	√	√			
Intermodal hub capacity	$0.4	√	√			
Modify interchange	$273.9		√			
Add lanes and reconstruct	$224.0	√	√			
Add lanes and reconstruct	$156.2	√	√			
Add lanes and reconstruct	$80.3	√	√			
Add lanes and reconstruct	$100.9	√	√			
Add lanes and reconstruct	$194.2	√	√			
Managed lanes	$298.1	√	√			
Interchange Improvement	844.0	√	√			
Construction of access ramp	$3.5	√	√			
Enhanced bus service	$25.0	√				
Mainline widening and interchange improvements	$198.8	√	√			
Interchange improvements	$81.0	√	√			
New connector ramp construction	$103.4	√	√			
Mainline widening and interchange reconstruction	$1.3	√	√			
Add 2 lanes and reconstruct	$75.6	√	√			
Add 2 lanes and reconstruct	$51.8	√	√			
Add 2 lanes and reconstruct	$22.2	√	√			
Add 2 lanes and reconstruct	$42.1	√	√			
Add 2 lanes and reconstruct	$20.7	√	√			
Add 2 lanes and reconstruct	$27.6	√	√			
Add 2 lanes and reconstruct	$24.5	√	√			
Add 2 lanes and reconstruct	$14.1	√	√			
Add 2 lanes and reconstruct	$79.4	√	√			
Add 2 lanes and reconstruct	$53.1	√	√			
Add 2 lanes and reconstruct	$38.2	√	√			
Add lanes and rehabilitate pavement	$14.1	√	√			
Add lanes and rehabilitate pavement	$32.5	√	√			
Completion as 2 continuous lanes	$13.8	√	√			
Add 2 lanes and reconstruct	$6.9	√	√			
Add 2 lanes and reconstruct	$2.4	√	√			
Add center turn lane	$1.3	√	√			

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Miami-Dade	**SW 312 St. (Campbell)**	SR 997 (Krome)	US-1
Broward	**Wave Streetcar**	SE 17th St../NW 4th Ave.	SE 7th St./NE 6th Ave.
	NW 21st Ave.	SR 816/Oakland Park Blvd.	SR 870/Commercial Blvd.
	Intersection Improvement	SR 845/Powerline Rd. and SR 816/Oakland Park Blvd.	
	SR 842/Broward Blvd.	Sawgrass Mills Mall	SR 817/University Dr.
	Modern Trolleys	City of Fort Lauderdale	
	Wayfinding Program	City of Fort Lauderdale	
	Downtown ITS System	City of Fort Lauderdale	
	SR 5/US 1	Aventura Mall	Downtown Terminal
	Intersection Improvement	Rock Island Rd. and Royal Palm Blvd.	
	I-75	Broward/Miami-Dade County Line	I-595
	I-95	Broward/Miami-Dade County Line	Broward Boulevard
	I-95	Commercial Boulevard	North of Cypress Creek Rd.
	Sample Rd.	South of Military Trail	N of Military Trail
	Turnpike (SR 91)	Sample Rd.	
	Sunrise Blvd. (SR 838) Interchange with Turnpike (SR 91) - MP 58		
	HEFT (SR 821)	From NW 57 Ave. HEFT - MP 43	To Miramar Toll Plaza - HEFT MP 47
	Sawgrass Expressway (SR 869)	Coral Ridge Drive Interchange - MP 14	
	Sawgrass Expressway	Sunrise (MP 1A)	Coral Ridge Drive (MP 14)
Palm Beach	**Turnpike (SR 91) AET Phase 5A**	I-595 (MP 55)	"South of Lantana Plaza (MP 88)"
	I-95	at Blue Heron Blvd.	
	I-95	at Linton Blvd.	
	I-95	at Atlantic Ave.	
	I-95	at Spanish River Blvd.	
	Southern Blvd./SR 80	W of Lion Country Safari	Crestwood/Forest Hill Blvd.
	SR 710	Martin/PBC Line	W of Indiantown Rd.
	SR 710	W of Indiantown Rd.	W of Pratt Whitney Rd.

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	FULLY FUNDED IN THE TIP	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
Widening existing lanes and reconstruct	$12.3	√	√			
SE 7th St./NE 6th Ave.	$30.6		√			
Construct new streetcar route	$23.1		√			
Reconstruct roadway to include multimodal alternatives	$14.5		√			
Reconstruct intersection	$5.9		√			
Upgrades to support enhanced bus service	$5.7		√			
Purchase 15 trolley vehicles	$1.5		√			
Install traveler wayfinding components	$1.1		√			
Install Intelligent Transportation Systems (ITS) components	$3.7		√			
Upgrades to support enhanced bus service	$0.5		√			
Express Lane Improvements	$6.7		√			
Express Lanes Phase II	$4.9		√			
Interchange Improvement Project Development & Environment Study	$2.0		√			
Add Turn Lane	$1.2		√			
Interchange Improvement	$1.4	√	√			
Interchange Improvement	$53.4	√	√			
Add Auxiliary Lanes and NW 57th Ave. interchange improvement	$56.1	√	√			
Interchange improvement	$3.7	√	√			
Widen 6L to 8L	$119.4	√	√			
All Electronic Toll Conversion of toll plazas	$46.4	X	X			
Interchange Improvement	N/A	√	√			
Interchange Improvement	N/A	√	√			
Interchange Improvement	N/A	√	√			
New Interchange	N/A	√	√			
Widen 4L to 6L	N/A	√	√			
Widen 2L to 4L	N/A	√	√			
Widen 2L to 4L	N/A	√	√			

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Palm Beach	**SR-710**	W of Congress Ave.	W of Australian Ave.
	SR 710	Australian Ave.	Old Dixie Hwy
	FEC		
	New Tri-Rail Station	Glades Rd.	Boca Raton
	SFRTA Layover	At Maintenance Facility	
	Northwood Connection Phase I	NW Quadrant on CSX Mainline	SE Quadrant on FEC Mainline
	Northwood Connection Phase II	SW Quadrant on CSX Mainline	NE Quadrant on FEC Mainline
	SR 7	Okeechobee Blvd.	60th St.
	SR 7	60th St.	Northlake Blvd.
	Congress Ave. Ext	Northlake Blvd.	Alt. A1A
	Jog Rd. Extension	Roebuck Rd.	45th St.
	Lyons Rd.	Broward/PB County Line	SW 18th St.
	Lyons Rd.	Clint Moore Rd.	Atlantic Ave.
	Northlake Blvd.	Seminole Pratt Whitney Rd.	Coconut Blvd.
	Old Dixie Hwy	Yamato Rd.	Linton Blvd.
	Old Dixie Hwy	Park Ave.	Northlake Blvd.
	Royal Palm Beach Blvd.	60th St.	Orange Blvd.
	Seminole Pratt Whitney Rd.	Orange Blvd.	Northlake Blvd.
	Lyons Rd.	Lantana Rd.	Lake Worth Rd.
	Lyons Rd.	Lake Worth Rd.	Stribling Wy
	Indiantown Rd.	Jupiter Farms Rd.	W of Florida's Turnpike
	45th St.	Haverhill Rd.	W of Military Tr
Multi County	**Turnpike (SR 91) AET Phase 5A**	I-595 (MP 55)	South of Lantana Plaza (MP 88)

Notes:

- * indicates the Miami-Dade project only has O&M dollars associated with it and no capital dollars were programmed. Many Miami-Dade projects included O&M funds in their 2040; however, only capital costs are shown.
- The listing of Broward MPO projects may not include all of their 2040 LRTP projects that were included by reference only.
- Privately funded projects were not included in this list.
- Miami-Dade set-aside projects and Broward and Palm Beach local projects were not included in this list. Those projects include bicycle/pedestrian projects, congestion management projects, and freight projects.
- Total costs are shown as Year of Expenditure dollar value (not Present Day Cost).
- FDOT District 4 SIS project information is based on published information available at the time from the Adopted SIS First Five Year Plan (July 2014), SIS Second Five Year Plan (July 2014), SIS Cost Feasible Plan (September 2014), and SIS Unfunded Needs Plan (October 2011).

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	FULLY FUNDED IN THE TIP	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
Widen 2L to 4L	N/A	√	√			
Widen 2L to 4L	N/A	√	√			
Upgrade Rail Crossings to Improve Safety for Vehicular and Non-motorized crossing maneuvers and to mitigate noise impacts along the corridor	N/A	√	√			
New Station on CSX Corridor	N/A	√	√			
Rail Preservation Project	N/A	√	√			
Rail Capacity Project	N/A	√	√			
Rail Capacity Project	N/A	√	√			
Widen 2L to 4L	N/A	√	√			
New 4L	N/A	√	√			
New 2L	N/A	√	√			
New 4L	N/A	√	√			
Widen 4L to 6L	N/A	√	√			
Widen 2L to 4L	N/A	√	√			
Widen 2L to 4L	N/A	√	√			
Widen 2L to 3L	N/A	√	√			
Widen 2L to 3L	N/A	√	√			
Widen 2L to 4L	N/A	√	√			
Widen 2L to 4L (drainage 6L)	N/A	√	√			
Widen 2L to 4L	$8.2		√			
New 2L	$8.8		√			
Widen 4L to 6L	$5.8		√			
Widen 4L to 6L	$4.1		√			
All Electronic Toll Conversion of toll plazas	$46.4	√	√			

- In addition to the list of projects provided above, all I-95 interchanges in Broward and Palm Beach counties are currently under study by FDOT District 4 and may result in interchange projects being programmed in the near future.
- Turnpike project information was provided by Florida's Turnpike Enterprise staff to District 4 staff on 8/3/15, based on adopted and available SIS Plans and projects. Turnpike projects from the Turnpike's 10-Year Plan that are not also programmed in the Turnpike's 5-Year Work Program do not have funding amounts associated with them in the spreadsheets.
- Key SIS projects are reflected in this Regional Transportation Plan. For a full listing of currently adopted, approved and planned SIS projects, please refer to the published SIS Funding Plans at the following website: http://www.dot.state.fl.us/planning/systems/programs/mspi/plans/default.shtm

TABLE 16
FUNDING PERIOD II/PRIORITY II AFFORDABLE PROJECTS

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Miami-Dade	**79 St. Causeway (JFK Cwy) Enhanced Bus**	Northside Metrorail Station	Miami Beach Convention Center
	Busway Park-and-Ride Facility*	US-1 Busway	SW 104 St.
	Direct Ramps to Dolphin Station Transit Terminal	SR-821 (HEFT) Managed Lanes	Dolphin Station Transit Terminal
	Dolphin Station Transit Terminal	West of SR-821 (HEFT) and North of NW 12 St.	
	Douglas Rd. Corridor (37 Ave.) Enhanced Bus	US-1	Miami Intermodal Center (MIC)
	Expand Overcapacity Park-and-Ride lot at SW 152 St.		
	Golden Glades Interchange: Florida Turnpike South Bound	At I-95	
	Golden Glades Interchange: I-95	Biscayne River Canal	Miami Garden Dr
	Golden Glades Interchange: I-95	SR-916/Opa-Locka Boulevard	Golden Glades Interchange
	Golden Glades Interchange: SR-826 (Palmetto)	NW 17 Ave.	Golden Glades Interchange
	Golden Glades Interchange: SR-826 (Palmetto)	At I-95	
	I-95	I-95	E 2 Ave.
	I-95	I-95	S Miami Ave.
	Kendall Corridor (Kendall Enhanced Bus)	West Kendall Transit Terminal	Dadeland North Metrorail Station
	MDT Bus Stop Enhancements	MDT Systemwide	
	Metrorail Park-and-Ride Facility	At Dadeland South	
	Northeast Corridor (Biscayne) Enhanced Bus	Miami Downtown Terminal	Aventura Terminal
	SR-924 Gratigny West Extension	SR-826 (Palmetto)/I-75	SR-821 (HEFT)
	SW 312 St. (Campbell)	SW 152 Ave.	SW 137 Ave.
	SW 8 St. (Tamiami)	SW 87 Ave.	SW 107 Ave.
	W Dixie Hwy	NE 163 St.	NE 175 St.
Broward	**Broward Signal Network**	Broward County	
	SR 816/Oakland Park Blvd.	Sawgrass Mills Mall	SR A1A
	SR 820/Hollywood/ Pines Blvd.	US 27	SR A1A
	SR 834/Sample Rd.	SR 869/Sawgrass Expy.	SR A1A
	SR 818/Griffin Rd.	I-75	SR 823/Flamingo Rd.
	Intersection Improvement	SR 7/US 441 and SR 816/Oakland Park Blvd.	

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
Improve/implement transit service	$218.9		√		
Park-and-Ride facility with 250-300 surface parking spaces	$1.6				
Direct access ramps for transit and trucks	$60.8		√		
Park-and-ride facility with kiss-and-ride, 12 bus bays, and 1000 parking spaces	$31.4	√*			
Incremental improvement on PTP corridor	$17.8		√		
New parking garage with 500 parking spaces	$22.3		√		
Express Lane Flyover	$68.1	√	√		
Add 2 auxiliary lanes	$38.8	√	√		
New road construction	$74.6	√	√		
Managed lanes	$207.9		√		
New express lane ramps on I-95	$239.5	√	√		
Ramp reconstruction/reconfiguration for the I-95 ramps	$40.0		√		
Ramp reconstruction/reconfiguration of I-95 ramps	$40.0		√		
Incremental improvement on PTP corridor	$18.5	√	√		
Enhance all off-street bus stops	$3.4		√		
Expand Park-and-Ride facility with 1000 parking space garage	$34.5		√		
Incremental improvement on PTP corridor	$21.8	√	√		
Extend SR-924 to SR-821 (HEFT) with connections to I-75 and SR-826 (Palmetto)	$266.7	√	√		
Add 2 lanes with left turn lanes and reconstruct	$14.9	√	√		
Grade Separations at SW 8 St./SW 87 Ave. and SW 8 St./SW 107 Ave.	$183.3	√	√		
Widen to 4 Lanes	$6.0	√	√		
Reconstruct intersection	$24.0	√	√		
Install cellular to fiber-optics signal components	$138.7	√	√		
Upgrades to support enhanced bus service	$85.3	√	√		
Upgrades to support enhanced bus service	$5.8	√	√		
Add 2 lanes (from 4 to 6)	$35.7		√		
Reconstruct intersection	$1.8		√		

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Broward	**Intersection Improvement**	SR 823/Flamingo Rd. and SR 820/ Hollywood/Pines Blvd.	
	Intersection Improvement	Military Trail and SR 834/Sample Rd.	
	Intersection Improvement	SW 15th Ave. and SR 84	
	I-75	At Miramar Parkway	
	I-75	At Royal Palm Boulevard	
	I-95	At Sunrise Blvd.	
	I-95	At Broward Boulevard	
	I-95	Stirling Rd.	Palm Beach/Broward County Line
	HEFT (SR 821)	I-75 (MP 39)	NW 57th Ave. (MP 43)
	Sawgrass Expressway	Coral Ridge Drive (MP 14)	US 441 (MP 18)
	Sawgrass Expressway	U.S. 441 (MP 18)	Powerline Rd. (MP 21)
	Turnpike (SR 91)	Atlantic Boulevard	Sawgrass Expressway (SR 869)
	Turnpike (SR 91)	Sawgrass Expressway (SR 869)	Palm Beach County Line (MP 73)
Palm Beach	**I-95 Managed Lanes**	Northlake Blvd.	SR-708/Blue Heron Blvd.
	I-95	at Gateway Blvd.	
	Tri-Rail Extension - New Service	West Palm Beach Station	New Jupiter Station
	New Tri-Rail Station	Toney Penna Dr	Jupiter
	New Tri-Rail Station	PGA Blvd.	Palm Beach Gardens
	New Tri-Rail Station	45th St.	West Palm Beach
	Atlantic Ave./SR 806	SR 7	W of Lyons Rd.
	I-95	at SR 80	
	SR 710	Northlake Blvd.	Blue Heron Blvd.
	SR 710	PGA Blvd.	Northlake Blvd.
	Turnpike Mainline	Okeechobee Blvd./ Jog Rd. (Mile Post 98)	PGA Blvd. (Mile Post 109)
	Turnpike Mainline	Boynton Bch Blvd. (Mile Post 86)	Okeechobee Blvd./ Jog Rd. (Mile Post 98)
	Turnpike Mainline	Broward/PBC Line (Mile Post 73)	Boynton Bch Blvd. (Mile Post 86)
	New Tri-Rail Station	PBIA	West Palm Beach
	Express Bus via US 1	Camino Real Rd.	WPB Intermodal Center
	Express Bus via Military Trail	Boca Intermodal Center	WPB Intermodal Center

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
Reconstruct intersection	$1.4		√		
Reconstruct intersection	$1.4		√		
Reconstruct intersection	$0.6		√		
Modify Interchange	$5.2		√		
Modify Interchange	$12.4		√		
Modify Interchange	$168.9		√		
Modify Interchange (Short-Term and Long Term)	$132.7	√	√		
Express Lanes Phase III	$1,071.7	√	√		
Widen 4L to 6L	N/A		√		
Widen 6L to 8L	N/A		√		
Widen 6L to 8L	N/A		√		
Widening	N/A		√		
Widening	N/A		√		
Add Managed Lanes	$36.1	√	√		
Interchange Improvement	$87.9	√	√		
New Service to Jupiter on FEC corridor via Northwood Crossover with Preliminary Estimated 3 station locations noted below:	$125.6	√	√		
Tri-Rail Coastal Link station on FEC corridor	Included	√	√		
Tri-Rail Coastal Link station on FEC corridor	Included	√	√		
Tri-Rail Coastal Link station on FEC corridor	Included	√	√		
Widen 2L to 4L	$29.1	√	√		
Interchange Improvement	$116.7		√		
Widen 4L to 6L	$35.3	√	√		
Widen 4L to 6L	$63.3		√		
Widen 4L to 6L	$296.2		√		
Widen 4L to 6L	$274.9		√		
Widen 6L to 8L	$297.8		√		
Additional Tri-Rail Station on CSX Corridor	$22.5		√		
New express bus service	$3.9		√		
New express bus service	$3.9		√		

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Palm Beach	**Express Bus via Glades Rd.**	SR 7	US 1
	Atlantic Ave./SR 806	Lyons Rd.	Jog Rd.
	Okeechobee Blvd.	Crestwood Blvd.	W of Royal Palm Beach Blvd.
	Okeechobee Blvd.	Seminole Pratt-Whitney Rd.	West of Crestwood Blvd.
	Seminole Pratt-Whitney Rd.	Persimmon Blvd.	60th St.

Notes:

- * indicates the Miami-Dade project only has O&M dollars associated with it and no capital dollars were programmed. Many Miami-Dade projects included O&M funds in their 2040; however, only capital costs are shown.
- The listing of Broward MPO projects may not include all of their 2040 LRTP projects that were included by reference only.
- Privately funded projects were not included in this list.
- Miami-Dade set-aside projects and Broward and Palm Beach local projects were not included in this list. Those projects include bicycle/pedestrian projects, congestion management projects, and freight projects.
- Total costs are shown as Year of Expenditure dollar value (not Present Day Cost).
- FDOT District 4 SIS project information is based on published information available at the time from the Adopted SIS First Five Year Plan (July 2014), SIS Second Five Year Plan (July 2014), SIS Cost Feasible Plan (September 2014), and SIS Unfunded Needs Plan (October 2011).

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
New express bus service	$3.9		√		
Widen 4L to 6L	$25.3	√	√		
Widen 4L to 6L	$3.6		√		
Widen 2L to 4L	$32.1		√		
Widen 2L to 4L	$19.3		√		

- In addition to the list of projects provided above, all I-95 interchanges in Broward and Palm Beach counties are currently under study by FDOT District 4 and may result in interchange projects being programmed in the near future.
- Turnpike project information was provided by Florida's Turnpike Enterprise staff to District 4 staff on 8/3/15, based on adopted and available SIS Plans and projects. Turnpike projects from the Turnpike's 10-Year Plan that are not also programmed in the Turnpike's 5-Year Work Program do not have funding amounts associated with them in the spreadsheets.
- Key SIS projects are reflected in this Regional Transportation Plan. For a full listing of currently adopted, approved and planned SIS projects, please refer to the published SIS Funding Plans at the following website: http://www.dot.state.fl.us/planning/systems/programs/mspi/plans/default.shtm

TABLE 17
FUNDING PERIOD III/PRIORITY III AFFORDABLE PROJECTS

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Miami-Dade	**Direct Ramps to Dolphin Station Intermodal Terminal**	SR-836 (Dolphin) Managed Lanes	Dolphin Station Transit Terminal
	Direct Ramps to Palmetto Transit Terminal	SR-826 (Palmetto) Managed Lanes	Palmetto Intermodal Terminal
	Golden Glades Interchange	SB Turnpike	SB I-95 at NW 135 St.
	Golden Glades Interchange: SR-826 (Palmetto)	NW 17 Ave. at SR-826 (Palmetto)	NB I-95 at NW 183 St.
	I-195 ramps in Midtown (N 36 St. & N 38 St.)	I-195	N 36 St. & N 38 St.
	I-75 Ramp	At NW 87 Ave.	
	NW 36 St./NW 41 St.	NW 42 Ave. (Le Jeune)	SR-821 (HEFT)
	NW 42 Ave. (LeJeune)	US-27 (Okeechobee)	
	NW 7 Ave. Enhanced Bus	Downtown Miami	Golden Glades Interchange Terminal
	Palmetto Intermodal Terminal	SR-826 (Palmetto) and NW 74 St.	
	Ramps between the US-1 Busway and SR-826 (Palmetto)	US-1 Busway	SR-826 (Palmetto)
	SR-821 (HEFT)	SW 137 Ave.	SW 216 St.
	SR-821 (HEFT)	SW 312 (Campbell Dr)	SW 288 St.
	SR-821 (HEFT)	SW 288 St.	SW 137 Ave. (Speedway)
	SR-826 (Palmetto)	NW 154 St.	NW 17 Ave.
	SR-826 (Palmetto)	NW 138 St.	NW 103 St./W 49 St.
	SR-836 (Dolphin) Managed Lanes	SR-826 (Palmetto)/ SR-836 (Dolphin)	Just West of 27 Ave.
	SR-836 (Dolphin) Managed Lanes	SR-821 (HEFT)	SR-826 (Palmetto) / SR-836 (Dolphin) Interchange
	Turnpike (Mainline)	Golden Glades Interchange	SR-821 (HEFT)
	Turnpike (Mainline)	Golden Glades Interchange	
	US-1	Port Blvd.	
	US-27 (Okeechobee)	NW 42 Ave. (Le Jeune)	
	US-27 (Okeechobee)	SR-826 (Palmetto)	
Broward	**SR 817/University Drive**	SR 869/Sawgrass Expy.	NW 40th St. (Cardinal)
	SR 817/University Drive	Golden Glades	North of SR 834/ Sample Rd.
	Pembroke Rd.	SW 184th Ave.	SW 160th Ave.
	SR 838/Sunrise Blvd.	Sawgrass Mills Mall	SR A1A

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
Direct access ramps for transit	$71.6			√	
Direct access ramps for transit	$70.0			√	
Modify interchange	$224.2			√	
Modify interchange	$322.8			√	
Ramp reconstruction/reconfiguration of ramps leading to N 36 St. and N 38 St.	$47.1			√	
Construct an off ramp from SB I-75 to SB W 28 Ave./NW 87 Ave.	$47.1			√	
Operational improvements	$0.4			√	
Improve advance signage for intersection lane alignment	$0.2			√	
Premium limited stop transit service	$85.2		√	√	
Expand Park-and-Ride Facility	$38.3	√	√	√	
Construct ramps connecting the US-1 Busway to SR-826 (Palmetto)	$93.4		√	√	
Widen to 8 Lanes. Include Express lanes portions of project length.	$185.4		√	√	
Widen to 6 lanes	$66.9		√	√	
Widen to 8 lanes	$29.7		√	√	
Managed lanes	$722.2	√		√	
Add a braided off ramp to W 68 St./NW 122 St.	$47.1			√	
Two new managed lanes within the right-of-way of SR-836 (Dolphin)	$129.7			√	
Two new managed lanes within the ROW of SR 836 (Dolphin)	$140.4		√	√	
Widen to 8 lanes	$129.5		√	√	
Add SB ramp capacity	$87.5			√	
Expand SB left turn lane for trucks entering Port of Miami	$2.0		√	√	
Improve access at intersection	$0.4			√	
Operational improvements	$12.8			√	
Add 2 lanes (from 4 to 6)	$35.0		√	√	
Upgrades to support enhanced bus service	$174.3			√	
Add 2 lanes (from 2 to 4)	$28.9			√	
Upgrades to support enhanced bus service	$4.1			√	

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Broward	**Pembroke Rd.**	SW 200th Ave.	SW 184th Ave.
	Intersection Improvement	SR 820/Hollywood Blvd. and 62nd Ave.	
	I-75	At Pines Boulevard	
	I-95	At Hollywood Boulevard	
	I-95	At Stirling Rd.	
Palm Beach	**US 27 Connector**	SR 80/US 27	SR 715
	I-95	at Central Blvd. or PGA Blvd.	
	I-95	at Boynton Beach Blvd.	
	I-95	at Palm Beach Lakes Blvd.	
	I-95	at 10th Ave. N	
	I-95	at 6th Ave. S	
	I-95	at Hypoluxo Rd.	
	Seminole Pratt Whitney Rd.	N of Northlake Blvd.	SR 710
	45th St.	I-95	Congress Ave.
	Tri-Rail Park & Ride Expansion	Yamato Rd.	Boca Raton
	Express Bus via I-95	Indiantown Rd.	WPB Intermodal Center
	Express Bus via SR 7/ Okeechobee Blvd.	Mall at Wellington Green	WPB Intermodal Center
	Glades Area Intermodal Center	atSR80/US441/ Hooker Hwy/Main St.	Belle Glade

Notes:

- * indicates the Miami-Dade project only has O&M dollars associated with it and no capital dollars were programmed. Many Miami-Dade projects included O&M funds in their 2040; however, only capital costs are shown.
- The listing of Broward MPO projects may not include all of their 2040 LRTP projects that were included by reference only.
- Privately funded projects were not included in this list.
- Miami-Dade set-aside projects and Broward and Palm Beach local projects were not included in this list. Those projects include bicycle/pedestrian projects, congestion management projects, and freight projects.
- Total costs are shown as Year of Expenditure dollar value (not Present Day Cost).
- FDOT District 4 SIS project information is based on published information available at the time from the Adopted SIS First Five Year Plan (July 2014), SIS Second Five Year Plan (July 2014), SIS Cost Feasible Plan (September 2014), and SIS Unfunded Needs Plan (October 2011).

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
Construct new 4 lane roadway	$3.1			√	
Reconstruct intersection to eliminate turn-lanes	$0.3			√	
Modify Interchange (Short-Term and Long Term)	$58.2		√	√	
Modify Interchange	$54.0		√	√	
Modify Interchange	$57.5		√	√	
New 2L	$26.6		√	√	
Interchange Improvement	$86.7			√	
Interchange Improvement	$97.7			√	
Interchange Improvement	$150.1			√	
Interchange Improvement	$53.3			√	
Interchange Improvement	$71.4			√	
Interchange Improvement	$73.9			√	
New 2L	$67.9		√	√	
Widen 6L to 8L	$7.8		√	√	
New parking garage (420 spaces)	$11.0			√	
New express bus service	$4.6			√	
New express bus service	$4.6			√	
Proposed passenger intermodal center	$19.3			√	

- In addition to the list of projects provided above, all I-95 interchanges in Broward and Palm Beach counties are currently under study by FDOT District 4 and may result in interchange projects being programmed in the near future.
- Turnpike project information was provided by Florida's Turnpike Enterprise staff to District 4 staff on 8/3/15, based on adopted and available SIS Plans and projects. Turnpike projects from the Turnpike's 10-Year Plan that are not also programmed in the Turnpike's 5-Year Work Program do not have funding amounts associated with them in the spreadsheets.
- Key SIS projects are reflected in this Regional Transportation Plan. For a full listing of currently adopted, approved and planned SIS projects, please refer to the published SIS Funding Plans at the following website: http://www.dot.state.fl.us/planning/systems/programs/mspi/plans/default.shtm

TABLE 18
FUNDING PERIOD IV/PRIORITY IV AFFORDABLE PROJECTS

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Miami-Dade	**I-75**	SR-826 (Palmetto)	NW 170 St.
	I-75	At Miami Garden Dr	
	N. Miami Ave.	NW 14 St.	Miami City Limitis
	North Corridor (NW 27 Ave.) BRT with Dedicated Lanes	Miami Intermodal Center (MIC)	NW 215 St.
	NW 36 St.	At NW 72 Ave. (Milam Dairy)	
	NW 74 St.	SR-826 (Palmetto)	FEC Intermodal Yard
	NW 79 St./NW 81 St./NW 82 St.	NW 13 Ct	Biscayne Bay
	Port of Miami Tunnel	Port of Miami	SR-836 (Dolphin) /I-395
	Port of Miami Tunnel	Port of Miami	SR-836 (Dolphin) /I-395
	Port Tunnel/Miami-Dade County MPO Priority		
	SR-821 (HEFT)	SW 40 St. (Bird)	SW 8 St. (Tamiami)
	SR-821 (HEFT)	NW 12 St.	NW 74 St.
	SR-821 (HEFT)	SW 88 St. (Kendall)	SW 40 St. (Bird)
	SR-821 (HEFT)	SR-874 (Don Shula)	Killian Pkwy
	SR-821 (HEFT)	NW 57 Ave. (Red)	Turnpike (Mainline)
	SR-821 (HEFT)	I-75	NW 57 St. (Red)
	SR-826 (Palmetto)	NW 103 St.	NW 154 St.
	SR-826 (Palmetto)	SR-836 (Dolphin)	NW 103 St.
	SW 137 Ave.	US-1	SW 184 St.
	SW 137 Ave.	SW 24 St.	SW 8 St. (Tamiami
	SW 152 St. (Coral Reef)	SR-821 (HEFT)	US-1
	SW 312 St. (Campbell)	NW 14 Ave./SW 176 Ave.	SW 197 Av
	US-1	SW 27 Ave.	
	US-1	SW 344 St. (Palm)	
	US-27 (Okechobee)/ SR-826 (Palmetto) Interchange	W 95 St.	W 16 Ave.
	US-27 (Okeechobee)	SR-826 (Palmetto)	SR-997 (Krome)
Broward	**FDOT Signal Network**	Broward County	
	SR 817/University Drive	Holmberg Rd.	County Line Rd.
	SR 7/US 441	Golden Glades	Sample Rd.
	Intersection Modification	I-95 and SR 84	
	Pembroke Rd.	Douglas Rd.	SR 817/University Drive
	Pembroke Rd.	SR 7/US 441	Florida's Turnpike

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
Widen with express lanes	$550.0				√
Modify Interchange	$141.3	√			√
Roadway improvements	$7.6				√
Full bus rapid transit	$626.0		√	√	√
Grade separation of NW 36 St. over NW 72 Ave.	$80.6				√
Modify connector	$130.9				√
Capacity improvements	$34.2				√
Financing Repayment	$16.8	√	√	√	√
Financing Repayment	$4,074.5	√	√	√	√
FDOT Repayment to Miami-Dade County	$492.0	√	√	√	√
Transportation System Management and Operation (TSM&O)	$17.5				√
Transportation System Management and Operation (TSM&O)	$34.6				√
Transportation System Management and Operation (TSM&O)	$28.4				√
Widen to 10 lanes	$102.0				√
Widen to 8 lanes	$91.0				√
Widen to 8 lanes	$93.3			√	√
Widen with express lanes	$763.4				√
Add 4 special use lanes	$763.4				√
Add 2 lanes and reconstruct	$21.6				√
Add 2 lanes and reconstruct	$19.0				√
Add 2 lanes and reconstruct	$132.9	√			√
Add 2 lanes and reconstruct	$51.5			√	√
Grade separation of US-1 over SW 27 Ave.	$73.6			√	√
Grade separated overpass	$80.6				√
Ramp improvements	$106.8				√
Operational/capacity improvements with grade separated intersection	$656.1	√			√
Install Ethernet to fiber-optics signal component	$109.6	√	√	√	√
Add 2 lanes (from 2 to 4)	$34.1			√	√
Upgrades to support enhanced bus service	$386.2				√
Reconstruct interchange	$38.6				√
Add 2 lanes (from 4 to 6)	$25.3				√
Restripe roadway to 6 lanes	$13.1				√

COUNTY	PROJECT	LIMITS FROM	LIMITS TO
Palm Beach	**Lantana Rd.**	Lyons Rd.	Hagen Ranch Rd.
	Indiantown Rd.	Pratt-Whitney Rd.	131st Trail N
	Okeechobee Blvd. Extension	SR 80/CR880 Intersection	Seminole Pratt Whitney Rd.
	I-95	at Lantana Rd.	
	Tri-Rail Extension - New Service	Mangonia Park Station	Blue Heron Blvd./VA Hospital
	New Tri-Rail Station	Blue Heron Blvd.	Riviera Beach
	SR 7	Okeechobee Blvd.	Belvedere Rd.
	I-95 Managed Lanes	Indiantown Rd.	Martin/PBC Line
	SR 710	W of Seminole Pratt Whitney Rd.	PGA Blvd.
	Turnpike	at Hypoluxo Rd.	
	Tri-Rail Park & Ride Expansion	45th St.	Mangonia Park
	Tri-Rail Park & Ride Expansion	WPB Intermodal Center	West Palm Beach
	Express Bus via SR 7/Lake Worth Rd. go US 1	Mall at Wellington Green	US 1 in Lake Worth
	Express Bus via SR 80/ Australian Ave.	Glades Area Intermodal Center	WPB Intermodal Center
	Express Bus via SR 7	Broward Co	Mall at Wellington Green
	Express Bus via Turnpike	Broward Co	Palm Beach Gardens
	Express Bus via Persimmon Blvd. /SR 7/Okeechobee Blvd.	SPW/Persimmon Blvd.	WPB Intermodal Center
	Express Bus via SPW Rd./ Northlake Blvd./Military Trail/ PGA Blvd.	SPW/Persimmon Blvd.	Palm Beach Gardens Station
	Boca Intermodal Center	at Tri-Rail Station near Glades Rd.	Boca Raton
	PGA Blvd./SR 786	SR 710/Beeline Hwy	Ryder Cup Blvd.
	Okeechobee Blvd. Extension	SR 80/CR880 Intersection	Seminole Pratt Whitney Rd.

Notes:

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- The listing of Broward MPO projects may not include all of their 2040 LRTP projects that were included by reference only.
- Privately funded projects were not included in this list.
- Miami-Dade set-aside projects and Broward and Palm Beach local projects were not included in this list. Those projects include bicycle/pedestrian projects, congestion management projects, and freight projects.
- Total costs are shown as Year of Expenditure dollar value (not Present Day Cost).
- FDOT District 4 SIS project information is based on published information available at the time from the Adopted SIS First Five Year Plan (July 2014), SIS Second Five Year Plan (July 2014), SIS Cost Feasible Plan (September 2014), and SIS Unfunded Needs Plan (October 2011).

DESCRIPTION	TOTAL COST ($YOE IN MILLIONS)	2015-2020 FUNDING PERIOD	2021-2025 FUNDING PERIOD	2026-2030 FUNDING PERIOD	2031-2040 FUNDING PERIOD
Widen 4L to 6L	$35.7		√		√
Widen 2L to 4L	$28.0		√	√	√
New 2L - PBC portion of total cost is shown	$34.1		√	√	√
Interchange Improvement	$86.7			√	√
Extend existing service on CSX corridor. Includes new station noted below:	$63.4			√	√
Additional Tri-Rail Station on CSX Corridor	$28.5			√	√
Widen 6L to 8L	$14.9			√	√
Add Managed Lanes	$56.4				√
Widen 4L to 6L	$59.6				√
New Interchange	$113.1				√
New parking garage (300 spaces) and improved bus circulation	$10.0				√
New parking garage (450 spaces)	$15.1				√
New express bus service	$5.9				√
New express bus service	$5.9				√
New express bus service	$5.9				√
New express bus service	$5.9				√
New express bus service	$5.9				√
New express bus service	$5.9				√
Proposed passenger intermodal center	$24.6				√
Widen 2L to 4L	$30.7				√
New 2L - MPO funded portion of total cost is shown	$31.0				√

- In addition to the list of projects provided above, all I-95 interchanges in Broward and Palm Beach counties are currently under study by FDOT District 4 and may result in interchange projects being programmed in the near future.
- Turnpike project information was provided by Florida's Turnpike Enterprise staff to District 4 staff on 8/3/15, based on adopted and available SIS Plans and projects. Turnpike projects from the Turnpike's 10-Year Plan that are not also programmed in the Turnpike's 5-Year Work Program do not have funding amounts associated with them in the spreadsheets.
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PERFORMANCE OF INVESTMENTS

ROADWAY NETWORK ENHANCEMENTS

The cost feasible network adds over 600 lane miles of roadway network over what is included in the E+C network. This includes over 385 lane miles of limited access highway and 55 lane miles of high-speed arterial roadway.

FIGURE 38
ROADWAY SNAPSHOT LANE MILES ADDED BY JURISDICTION

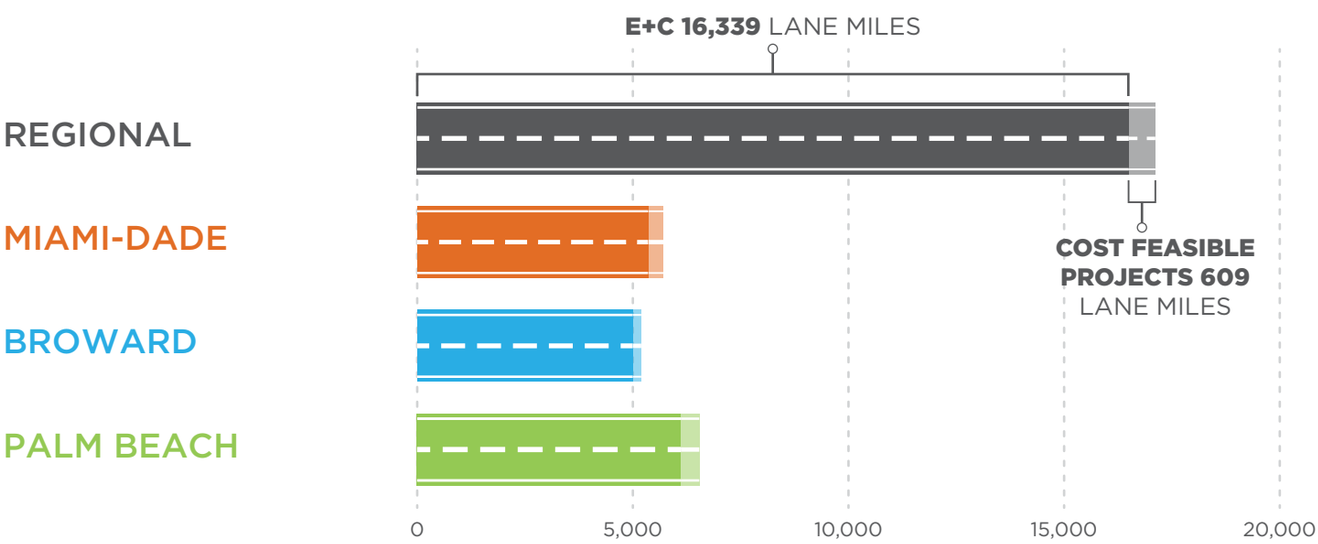
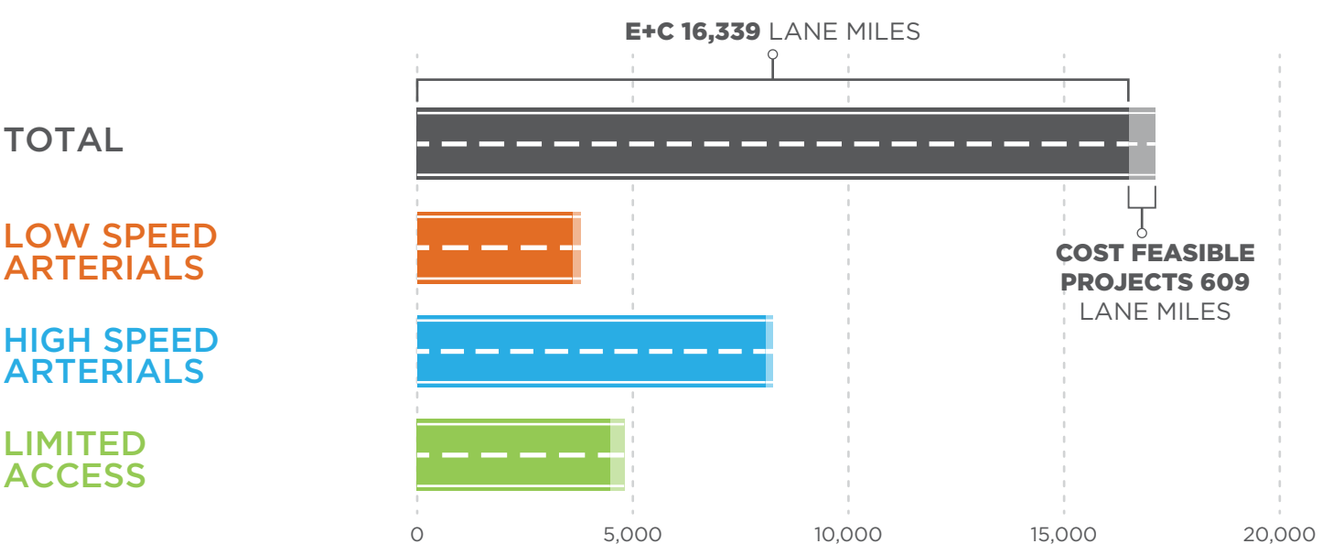


FIGURE 39
ROADWAY SNAPSHOT LANE MILES ADDED BY FACILITY TYPE



TRANSIT NETWORK ENHANCEMENTS

The Needs network adds over 700 route miles of transit services over what is included in the E+C network.

FIGURE 40
TRANSIT SNAPSHOT ROUTE MILES ADDED

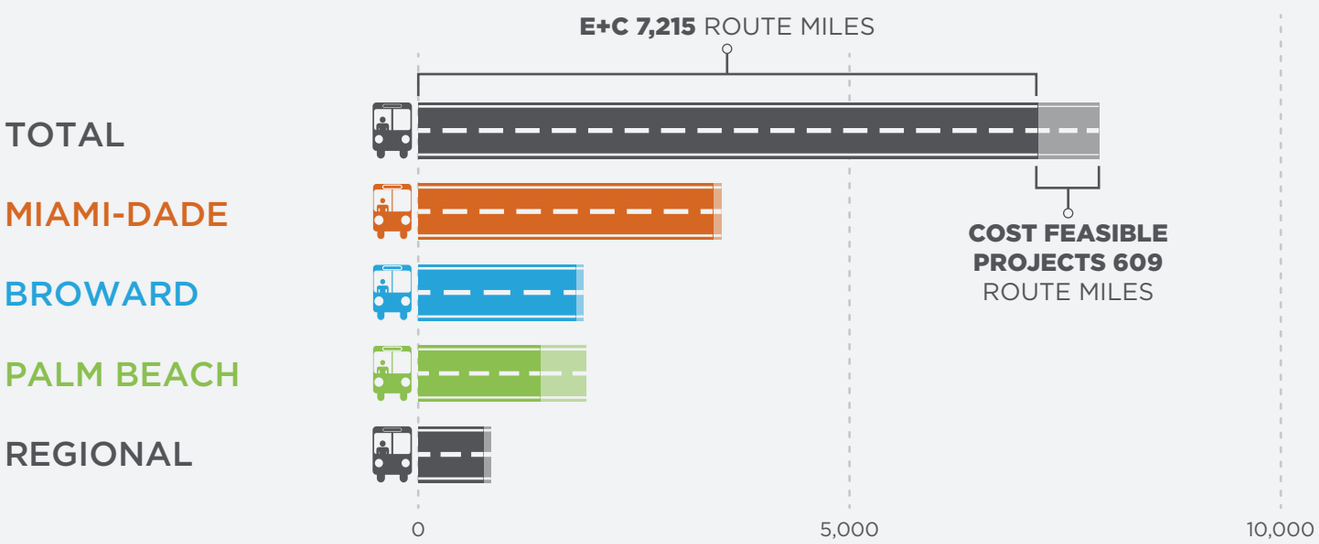
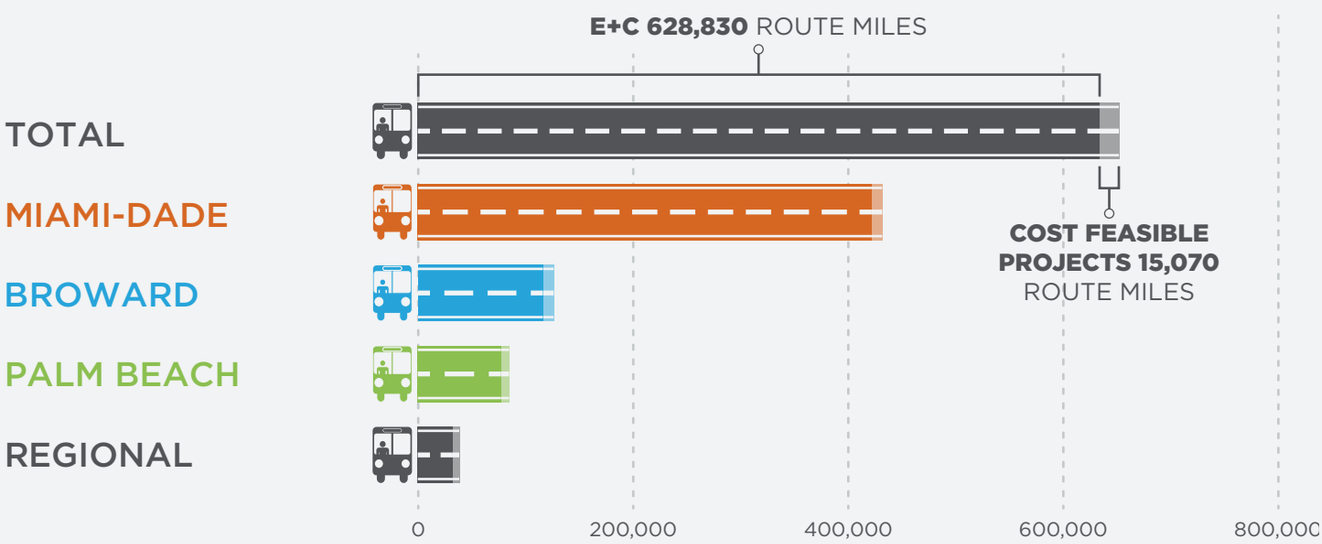


FIGURE 41
TRANSIT SNAPSHOT FORECAST TRANSIT BOARDINGS



TRAVEL BEHAVIOR CHANGE

Results from the SERPM 7 model runs indicate that moving from the E+C network to the cost feasible network in 2040, the transit mode share in each jurisdiction and regionwide is forecast to stay about the same; vehicle-miles of traveled (VMT) is estimated to increase by approximately 0.1 percent; vehicle-hours traveled (VHT) decreased by 2.1 percent.

TABLE 19
SUMMARY OF VMT BY JURISDICTION, E+C AND COST FEASIBLE NETWORK MODEL RUNS

JURISDICTION	E+C NETWORK	COST FEASIBLE NETWORK
Palm Beach	39,203,950	39,069,854
Broward	44,897,891	45,011,883
Miami-Dade	54,902,763	55,118,042
TOTAL	139,004,603	139,199,779

TABLE 20
SUMMARY OF CHANGE IN VMT BETWEEN E+C AND COST FEASIBLE NETWORK MODEL RUNS

JURISDICTION	LIMITED ACCESS	HIGH SPEED ARTERIAL	LOW SPEED ARTERIAL	ALL FACILITY
Palm Beach	1.6%	-2.9%	3.0%	-0.3%
Broward	1.4%	-0.7%	-0.4%	0.3%
Miami-Dade	2.4%	-2.4%	1.0%	0.4%
TOTAL	1.8%	-1.9%	1.1%	0.1%

TABLE 21
SUMMARY OF CHANGE IN VHT BETWEEN E+C AND COST FEASIBLE NETWORK MODEL RUNS

JURISDICTION	LIMITED ACCESS	HIGH SPEED ARTERIAL	LOW SPEED ARTERIAL	ALL FACILITY
Palm Beach	-1.4%	-4.0%	1.8%	-2.5%
Broward	-0.6%	-1.2%	-0.8%	-1.0%
Miami-Dade	-0.2%	-3.7%	-3.2%	-2.5%
TOTAL	-0.7%	-2.8%	-2.4%	-2.1%

Credit: TCRPC

SECTION

13

UNFUNDED INVESTMENT PRIORITIES

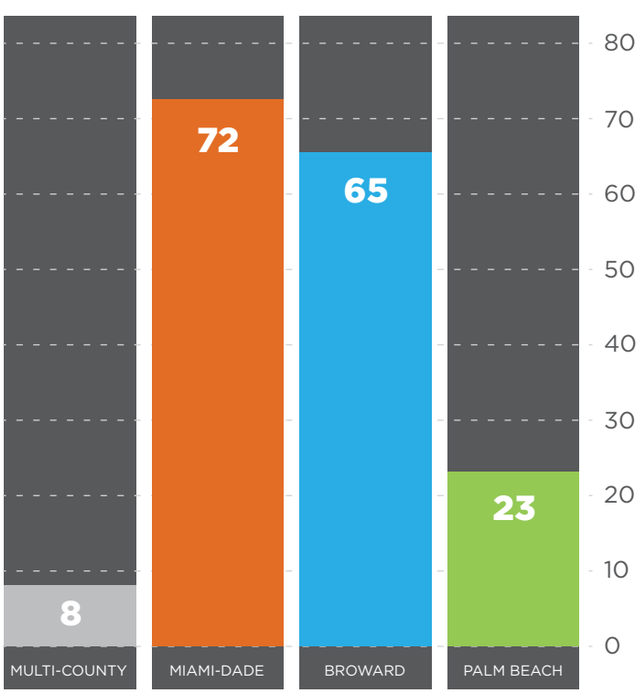
Although the region cannot afford to fund every identified project need, additional funding sources do tend to arise over time. In recognition of this, a subset of the regionally significant “needs” projects from Section 10 were prioritized to ensure that if additional funding does become available, it is allocated to projects that best address the goals and objectives of the region described in Section 5.

PRIORITIZATION METHODOLOGY

The prioritization methodology was designed to assess the relationship of individual regional projects to the RTP Goals and Objectives. The process was coordinated closely with the three individual MPOs and was implemented after cost feasible plan adoptions by the MPOs. The methodology and results were developed and reviewed under the guidance of the SEFTC Regional Transportation Technical Advisory Committee (RTTAC). The RTTAC played a key role at every stage in the process and considered the prioritization process, criteria development, and preliminary and draft results review at three regular committee meetings since October, 2014.

There are three categories of projects identified and prioritized for the Regional Transportation Plan (RTP), including Unfunded Needs, Partially Funded Needs, and Illustrative Needs. None of the three categories includes MPO LRTP cost feasible plan projects. Illustrative needs were defined as those projects that are dependent on financial resources that are uncertain either because they are currently not established revenue streams or are sourced from discretionary programs that have not allocated funding to the project or program in question, in accordance with MAP-21 and FDOT's 2040 Revenue Forecast Handbook. The Partially Funded category includes projects that are funded in one or more of the MPO LRTPs for pre-construction funding only, which includes Planning, Design and/or Right of Way funding. A total of 168 projects were evaluated, including seven projects that crossed county lines. A summary of the projects by county is depicted in the Figure 42.

FIGURE 42
NUMBER OF PROJECTS BY COUNTY



The first step in designing the regional project prioritization process was a detailed review of the MPO prioritization processes as well as the 2035 Regional LRTP process. Maintaining consistency with MPO LRTPs, although assured primarily through the coordinated development of regional Goals and Objectives, is one of the primary criteria in the methodology development. Other issues that were considered in the prioritization methodology include evaluation criteria that are objective, quantifiable, and mode-neutral, ensuring that the process is fair and balanced and requires minimal judgment or subjectivity. Objectivity and measurability, in particular, are crucial to a regional process that must balance the needs and goals of regional partners.

Criteria were developed for each of the six RTP Goals based on specific objectives identified for each goal. A total of three criteria were established for each goal, with an equal maximum score for each criteria. This ensured proportional consideration of all the goals in the prioritization process. A benefit/cost criteria was also developed and included as a seventh goal in the prioritization methodology.

Projects were scored against each of the criteria for a maximum score by goal of 30 points. The aggregate score for each project, maximum 210 points, was then used to rank projects. The projects were then separated into quintiles, by aggregate score, and designated as High, Medium-High, Medium, Medium-Low, or Low priority projects.

GOAL CRITERIA

The criteria developed to reflect the RTP Goals and Objectives were crafted to maximize the use of GIS layers and preserve the objectivity of the prioritization process. Data to support the implementation of the criteria were obtained from a variety of sources, including the South Florida Regional Planning Council, University of Florida Geoplan Center, Florida Department of Transportation and the Center for Neighborhood Technology. Utmost care was taken to ensure that the criteria were closely related and supportive of the key objectives under each of the RTP Goals. A description of the criteria below includes data sources and variables considered in the project evaluation. More detailed descriptions of the project evaluation criteria are included in the Regional Project Prioritization technical memorandum.

MOBILITY GOAL

The Mobility Goal is to provide an efficient and reliable transportation system for regional passenger and freight operations. The three criteria used to evaluate the mobility benefits of projects include:

- **Capacity Expansion**
  Does the project add capacity to congested facilities?
- **Optimization of Existing System**
  Does the project include the use of TSM&O or TDM strategies?
- **Improvement of System Reliability**
  Does the project include fixed guideway or managed lanes?

Data utilized for the mobility goal include volume to capacity ratios from the SERPM E+C scenario.

ACCESSIBILITY GOAL

The Accessibility Goal is to provide multimodal access to regional passenger and freight activity centers. The three criteria used to evaluate the mobility benefits of projects include:

- **Mode Choice Opportunities**
  Does the project improve transit or non-motorized facilities?
- **Freight Accessibility**
  Is the project a high priority freight project in the Regional Freight Plan?
- **Accessibility in Low Income Areas**
  Does the project improve transit or non-motorized facilities in cost burdened areas?

Data utilized for the accessibility goal include Regional Freight Plan evaluation results/criteria and cost burdened area definition from the Center for Neighborhood Technology's Housing and Transportation (H+T®) Affordability Index.

CONNECTIVITY GOAL

The Connectivity Goal is to provide an integrated multimodal transportation system throughout the region. The three criteria used to evaluate the mobility benefits of projects include:

- **Regional Multimodal Connections**
  Does the project Does the project improve transit or non-motorized facilities in corridors connecting primarily residential and employment centers?
- **Transit Corridors**
  Does the project promote mixed use activity centers in transit corridors?
- **Synergy with Cost Feasible Plans**
  Does the project support or connect to a cost feasible improvement in MPO cost feasible plan(s)?

Data utilized for the connectivity goal include activity center definitions from the Regional Transit Vision; FDOT Strategic Intermodal System facilities definition; and 2040 population data in SERPM socioeconomic datasets.

ENVIRONMENT GOAL

The Environment Goal is to protect the region's environment, promote energy conservation, and provide a resilient and adaptable transportation system. The three criteria used to evaluate the mobility benefits of projects include:

- **Air Quality and Greenhouse Gas Emissions**
  Does the project discourage single occupancy vehicles or provide a transit or non-motorized improvement?
- **System Resiliency or Adaptability**
  Does the project improve operation or maintenance of facilities in 2040 sea level inundation area?
- **Natural, Historical, Cultural Areas**
  Does the project encroach on environmentally, historic or cultural areas or facilities?

Data utilized for the environment goal include sea level change data from the University of Florida Geoplan Center Sea Level Scenario Sketch Planning Tool; natural, historical, and cultural data from the FDOT Efficient Transportation Decision Making Environmental Screening Tool; and right-of-way acquisition data from respective MPO LRTP's.

SAFETY & SECURITY GOAL

The Safety and Security Goal is to provide for a safer and more secure transportation system for the region's residents, businesses and visitors. The three criteria used to evaluate the mobility benefits of projects include:

- **High Crash Facilities**
  Does the project improve high crash facilities?
- **Evacuation Corridors**
  Does the project add capacity to evacuation corridors?
- **High Multimodal Crash Facilities**
  Does the project improve high multimodal crash facilities?

Data utilized for the safety and security goal include highway crash data from the FDOT All Roads Crash Analysis database; multimodal crash data from the University of Florida Geoplan Center's Signal Four Analytics database; and evacuation route data from the South Florida Regional Planning Council.

ECONOMY GOAL

The Economy Goal is to provide transportation investments to support an expanding regional economy. The three criteria used to evaluate the mobility benefits of projects include:

- **Existing and Developing Employment Centers**
  Does the project improve congested facilities in proximity to 2040 employment activity centers?
- **Household Transportation Cost**
  Does the project improve transit or non-motorized facilities with proximity to 2040 activity centers?
- **Level of Regional Facility**
  Does the project improve SIS or Principal Arterial facilities?

Data utilized for the economy goal include activity center definitions from the Regional Transit Vision plan; volume to capacity ratios in the SERPM E+C scenario; and SEFTC regional facilities definition.

BENEFIT COST ANALYSIS

A benefit cost analysis was conducted and treated as a seventh evaluation variable, weighted equally with the six goals in the ultimate prioritization. The analysis was conducted on a categorical basis, similarly to the goal analysis. The benefit variable in the ratio was derived from the goal analysis, in terms of quintiles of project scores. The cost variable was also quantified in quintiles for the purpose of this analysis. The resulting benefit/cost ratio assigned to each project included one of 25 potential categories, as outlined in Figure 43.

The 25 categories were also arrayed in quintiles and assigned numerical scores, defined by the ratio itself, in quantitative terms. If the ratio is greater than 2.0, the project received a benefit cost score of 30. Projects with a ratio less than 0.5 received a benefit cost score of 6. Projects with a ratio of 1.0 received a score of 18 and the other two potential scores are 12 and 24, consistent with the matrix in Figure 43.

FIGURE 43
BENEFIT COST RATIO MATRIX

		COST				
		HIGH	MED-HIGH	MED	MED-LOW	LOW
BENEFIT	HIGH	18	24	24	30	30
	MED-HIGH	12	18	24	24	30
	MED	12	12	18	24	30
	MED-LOW	6	12	12	18	24
	LOW	6	6	6	12	18

PRIORITIZATION RESULTS

The prioritized projects are arrayed in quintiles, separating the projects into five categories that include High, Medium-High, Medium, Medium-Low, and Low priority categories. The organization of projects in each of the five respective categories should not be mistaken for prioritized listings within a given category; rather, each set of projects should be considered of equal ranking within the respective list. The Regional Project Prioritization technical memorandum includes the project listings by priority category. The following figures and tables summarize project priorities by project type and priority category.

FIGURE 44
TRANSIT PROJECT PRIORITIES

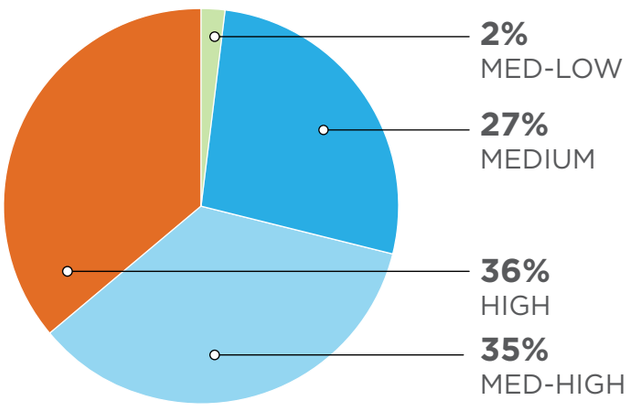


FIGURE 45
HIGHWAY PROJECT PRIORITIES

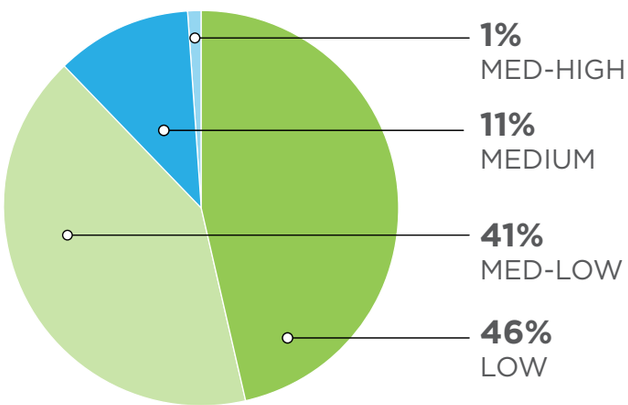


FIGURE 46
FREIGHT PROJECT PRIORITIES

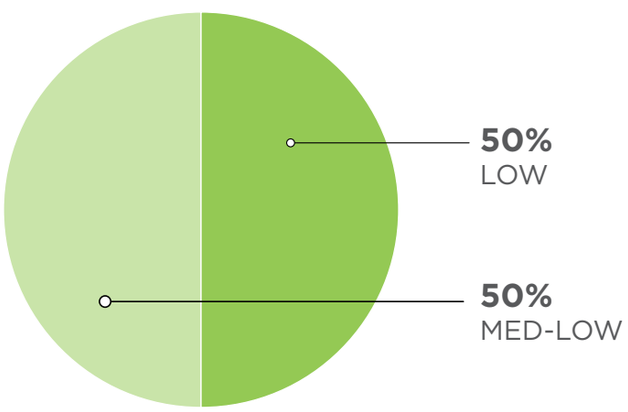


FIGURE 47
HIGH CATEGORY PROJECT PRIORITIES

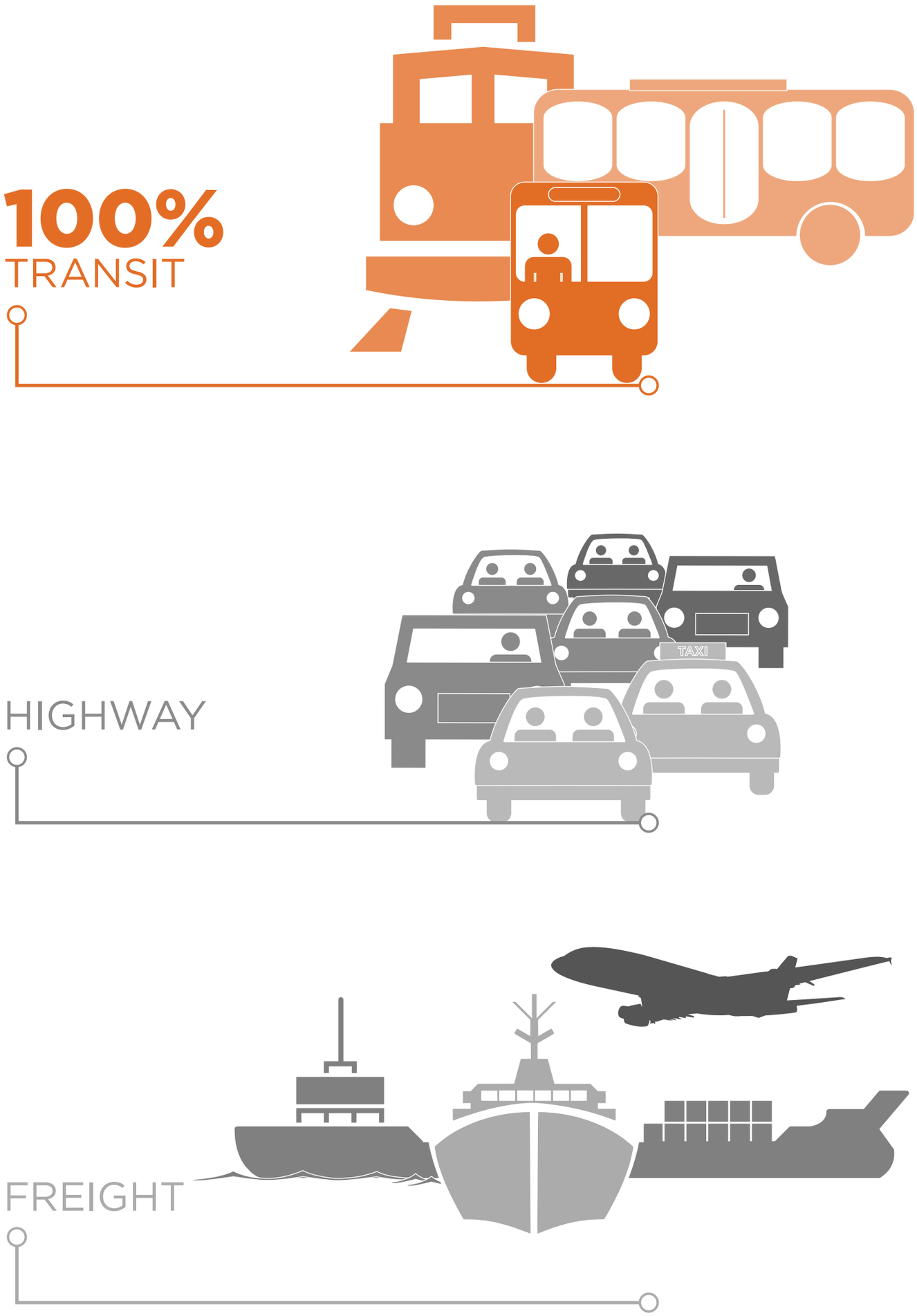


FIGURE 48
HIGH PRIORITY PROJECTS

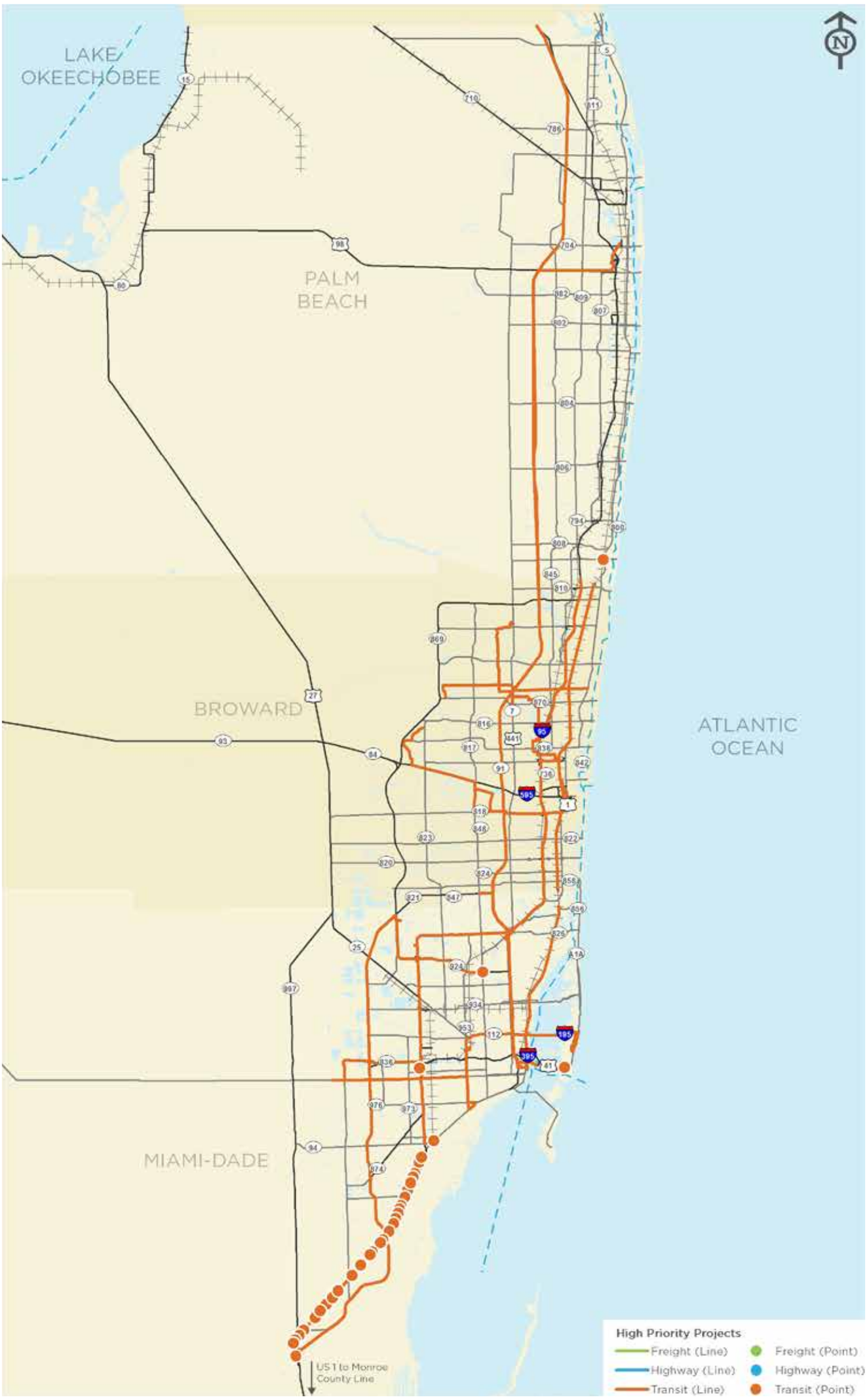


TABLE 22
HIGH PRIORITY PROJECTS

COUNTY	FACILITY NAME	LIMITS FROM	LIMITS TO
Multi-County	**FLL-Miami Beach Express Bus**	FLL Airport & FLL Tri-Rail station	Miami Beach
	FLL-PortMiami Express Bus	FLL Airport & FLL Tri-Rail station	PortMiami
	Florida's Turnpike Express Bus	Palm Beach County	Golden Glades Station and Downtown Miami
	Florida East Coast Railway		
	Intercity Passenger Rail	Miami	to Orlando (with Port Canaveral Connection)
Palm Beach	**New Tri-Rail Station**	Palmetto Park Rd.	Boca Raton
Broward	**McNab Rd.**	Hiatus Rd.	SR 5/US 1
	Central Broward East/West	Sawgrass Mills Mall	Downtown Ft. Lauderdale
	SR 842/Broward Blvd.	Tri-Rail Station	NW 1st Ave.
	Rock Island Rd.	Turtle Creek Drive	SR 7/US 441
Miami-Dade	**95 Express Improvements**	NW 215 St. Terminal	Downtown Miami
	Palmetto Express Bus (South)	Dadeland North Metrorail Station	Dolphin Station Intermodal Terminal
	Smart Card Technology & TVMS		
	SR-821 (HEFT-South)	SW 344 St. (Palm)/ Busway	Dolphin Station Intermodal Terminal
	I-95 Express Service Improvements	Golden Glades Terminal	Downtown Intermodal Terminal
	East-West Corridor	SW 8 St./ SW 147 Ave.	Miami Intermodal Center (MIC)
	Gratigny Pkwy/NW 119 St./NW 27 Ave. Park-and-Ride Facility		
	Mall of the Americas Terminal		
	Palmetto Express Bus (West)	SW 147 Ave./SW 8th St.	Palmetto Intermodal Terminal
	SR-821 (HEFT North)	Dolphin Station Intermodal Terminal	Miami Gardens/ I-75 Park-and-Ride
	Palmetto Express Bus (East)	Palmetto Intermodal Terminal	Golden Glades Terminal
	I-195 Express Enhanced Bus (North)	Miami Beach Convention Center	Golden Glades Terminal
	Busway Lot - SW 136th St.	US-1 Busway	SW 136 St.
	Midtown LRT (East)	Miami Beach Convention Center	Midtown at Biscayne Blvd./ NW 36 St.
	South Beach Bus Transfer Station		
	Kiss-and-Rides at all US-1 Busway Stations	SW 344 St. (Palm)/ US-1 Busway	Dadeland South Metrorail Station
	Palmetto Express (Central) via Plametto Intermodal Terminal	Dolphin Station Intermodal Terminal	Miami Lakes Terminal

DESCRIPTION	SOURCE
Express bus	SFRTA Unfunded Needs
Express bus	SFRTA Unfunded Needs
Express bus	SFRTA Unfunded Needs
Amtrak Service Miami to Jacksonville	SIS Multimodal Unfunded Needs Plan
New Passenger Service	SIS Multimodal Unfunded Needs Plan
Tri-Rail Coastal Link station on FEC corridor	Palm Beach LRTP Unfunded Needs
Add local bus service	Broward LRTP Unfunded Needs
Construct streetcar extension and rapid bus route	Broward LRTP Unfunded Needs
Construct streetcar extension	Broward LRTP Unfunded Needs
Extend local bus service	Broward LRTP Unfunded Needs
Express bus on managed lanes between terminals	Miami-Dade LRTP Unfunded Needs
Implement express bus service on managed lanes between terminals	Miami-Dade LRTP Unfunded Needs
Continued evolution and expansion of smart card and ticketing	Miami-Dade LRTP Unfunded Needs
Express bus service on managed laned between terminals	Miami-Dade LRTP Unfunded Needs
Express bus on managed lanes	Miami-Dade LRTP Unfunded Needs
Convert bus rapid transit to Metrorail	Miami-Dade LRTP Unfunded Needs
Park-and-ride facility	Miami-Dade LRTP Unfunded Needs
Improve existing terminal	Miami-Dade LRTP Unfunded Needs
Express bus on managed lanes	Miami-Dade LRTP Unfunded Needs
Implement express bus service on managed lanes between terminals	Miami-Dade LRTP Unfunded Needs
Implement express bus service on managed lanes between terminals	Miami-Dade LRTP Unfunded Needs
Express bus on managed lanes	Miami-Dade LRTP Unfunded Needs
Park-and-ride facility with 50-75 surface apces	Miami-Dade LRTP Unfunded Needs
Light rail	Miami-Dade LRTP Unfunded Needs
New South Beach bus transfer station	Miami-Dade LRTP Unfunded Needs
Kiss-and-ride at all stations along US-1 Busway	Miami-Dade LRTP Unfunded Needs
Express bus service	Miami-Dade LRTP Unfunded Needs

COUNTY	FACILITY NAME	LIMITS FROM	LIMITS TO
Miami-Dade	**I-195 Express Enhanced Bus (Central)**	Miami Beach Convention Center	Miami Intermodal Center (MIC)
	US-1 Corridor	SW 104 St.	SW 344 St. (Palm)
	NorthEast Corridor (Biscayne BRT) Dedicated Lanes on Biscayne Blvd.	Downtown	Aventura Terminal
	I-75/ Gratigny	I-75/ Miami Gardens Dr Park-and-Ride	NW 119 St./NW 27 Ave. Park-and-Ride Facility
	Palmetto Express Bus (North)	Palmetto Intermodal Terminal	Miami Gardens/ I-75 Park-and-Ride
	Expand overcapacity Park-and-Ride lot at Dadeland North	Dadeland North Metrorail Station	
	Le Jeune (42 Ave.) Enhanced Bus Service	Douglas Rd. Metrorail Station	Miami Intermodal Center (MIC)

DESCRIPTION	SOURCE
Express bus on managed lanes	Miami-Dade LRTP Unfunded Needs
Metrorail Extension	Miami-Dade LRTP Unfunded Needs
Full bus rapid transit	Miami-Dade LRTP Unfunded Needs
Express bus on managed lanes between terminals	Miami-Dade LRTP Unfunded Needs
Express bus service on managed lanes between terminals	Miami-Dade LRTP Unfunded Needs
Park-and-Ride w/ 1000 space garage, ground floor retail/ office space with addtl. articulated bus bays	Miami-Dade LRTP Unfunded Needs
New enhanced bus service	Miami-Dade LRTP Unfunded Needs

MED-HIGH PRIORITY PROJECTS

FIGURE 49
MED-HIGH CATEGORY PROJECT PRIORITIES

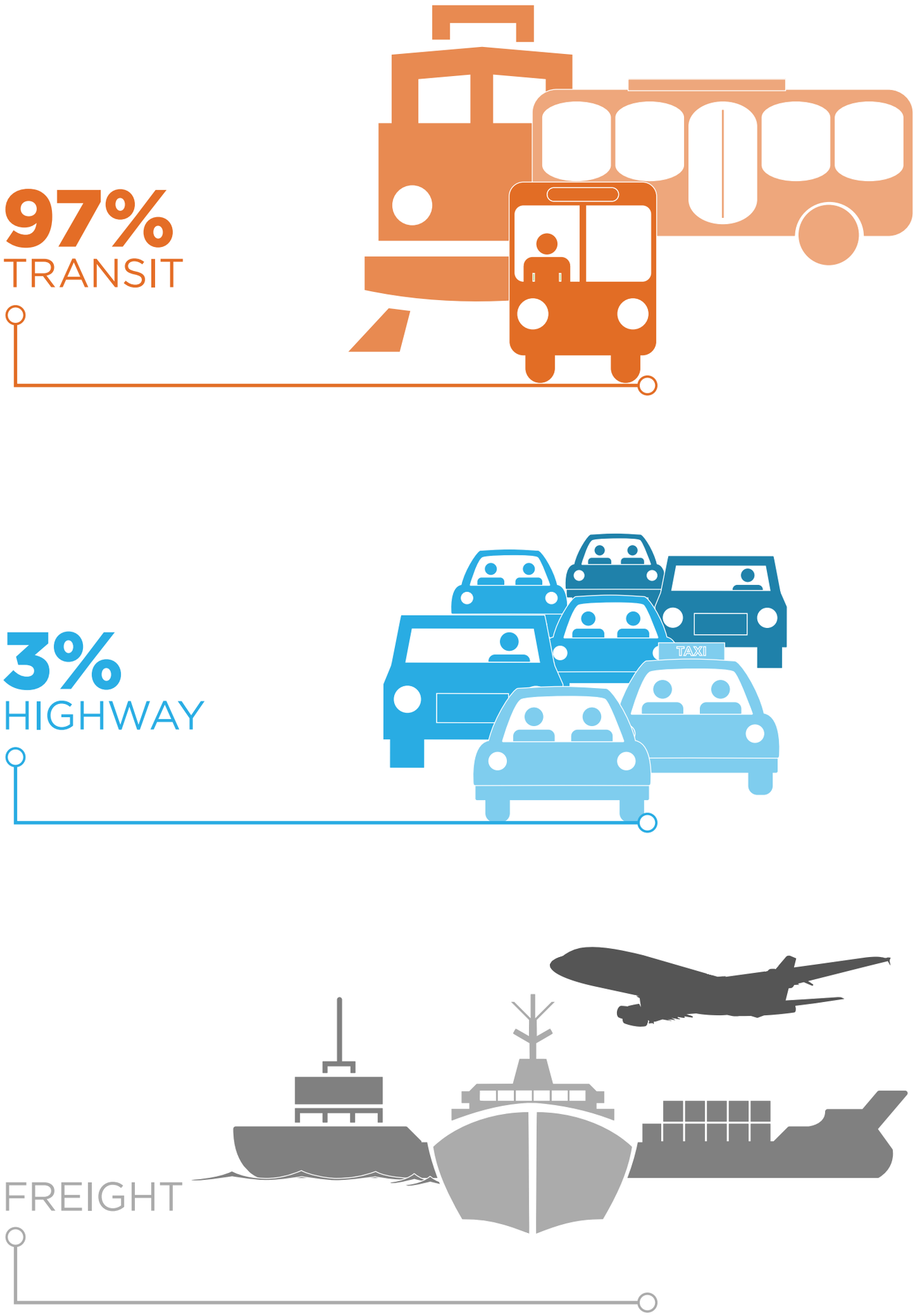


FIGURE 50
MED-HIGH PRIORITY PROJECTS

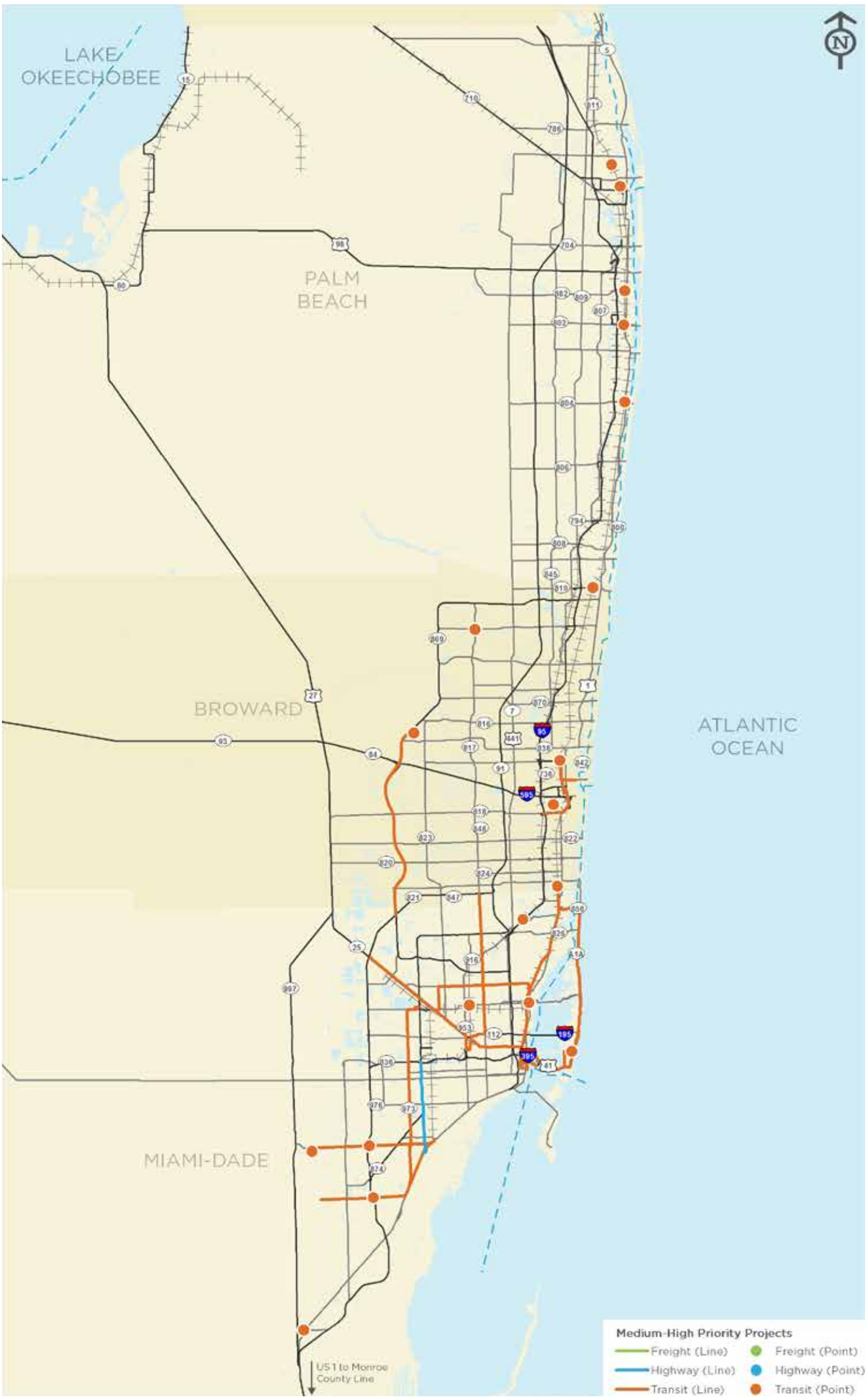


TABLE 23
MED-HIGH PRIORITY PROJECTS

COUNTY	FACILITY NAME	LIMITS FROM	LIMITS TO
Multi-County	**Tri-Rail Coastal Link (on FEC Railway Corridor)**	Downtown Miami	Jupiter (Palm Beach County)
Palm Beach	**New Tri-Rail Station**	S of Forest Hill Blvd.	West Palm Beach
	New Tri-Rail Station	Boynton Beach Blvd.	Boynton Beach
	New Tri-Rail Station	Lake Worth Rd.	Lake Worth
	New Tri-Rail Station	Park Ave.	Lake Park
	New Tri-Rail Station	13th St.	Riviera Beach
Broward	**Hub-to-Hub Connector**	I-75	Sawgrass Mills Mall
	Hub	Sawgrass Mall	at Sawgrass Mills/136th St.
	Hub	Broward County Transit Hub	at Broward Boulevard/ FEC
	17th St.	SR 5/US 1	Eisenhower Blvd.
	Hub	Coral Springs Gateway Hub	at University Drive/ Sample Rd.
	Mobility Hubs at Proposed Tri-Rail Coastal Link Stations	Proposed Downtown Deerfield Beach Station	Proposed Hallandale Beach Station
	Ft. Lauderdale/Hollywood International	Automated People Mover - Design	
	Hub-to-Hub Connector	FLL/Tri-Rail/Wave Transit Connector	Griffin Rd. Tri-Rail Station
Miami-Dade	**North Corridor (NW 27th Ave.) Metrorail Extension**	Miami Intermodal Center (MIC)	NW 215 St. Terminal
	Kendall Corridor (Kendall BRT)	West Kendall Transit Terminal	Dadeland North Metrorail Station
	US-1 (South Dixie Highway)	SW 88 St. (Kendall)	SW 104 St.
	Little River Park-and-Ride Facility	US-1 at NE 79 St.	
	NW 103 St. Enhanced Bus	Okeechobee Terminal	Little River Park-and-Ride
	Coral Reef Enhanced Bus	Dadeland North Metrorail Station	SW 152 Ave./SW 152 St. (Coral Reef)
	Metrorail/Tri-Rail Bus Hub Improvements		
	Intermodal Terminal at SW 88 St. (Kendall)/SR-821 (HEFT)	SW 88 St. (Kendall)	SR-821 (HEFT)
	US-1 Park-and-Ride Facility	US-1 Busway	SW 312 St. (Campbell)
	SR-826 (Palmetto)	US-1/S Dixie Highway	SR-836 (Dolphin)
	MIC-PortMiami Rail Connection	Miami Intermodal Center (MIC)	PortMiami
	New Tri-Rail Station in Northern Miami-Dade		

DESCRIPTION	SOURCE
Commuter rail expansion	SFRTA Unfunded Needs
Additional Tri-Rail Coastal Link Station on FEC corridor	Palm Beach LRTP Unfunded Needs
Tri-Rail Coastal Link station on FEC corridor	Palm Beach LRTP Unfunded Needs
Tri-Rail Coastal Link station on FEC corridor	Palm Beach LRTP Unfunded Needs
Additional Tri-Rail Coastal Link Station on FEC corridor	Palm Beach LRTP Unfunded Needs
Additional Tri-Rail Coastal Link Station on FEC corridor	Palm Beach LRTP Unfunded Needs
Exclusive Transit	SIS Multimodal Unfunded Needs Plan
New Hub	SIS Multimodal Unfunded Needs Plan
New Hub	SIS Multimodal Unfunded Needs Plan
Construct streetcar extension	Broward LRTP Unfunded Needs
New Hub	SIS Multimodal Unfunded Needs Plan
Mobility Hubs	SFRTA Unfunded Needs
Terminal People Mover	SIS Multimodal Unfunded Needs Plan
Streetcar/People Mover	SIS Multimodal Unfunded Needs Plan
Convert bus rapid transit to Metrorail	Miami-Dade LRTP Unfunded Needs
Full bus rapid transit	Miami-Dade LRTP Unfunded Needs
Metrorail Extension	Miami-Dade LRTP Unfunded Needs
Park-and-ride facility	Miami-Dade LRTP Unfunded Needs
Enhanced bus service	Miami-Dade LRTP Unfunded Needs
Enhanced bus	Miami-Dade LRTP Unfunded Needs
Increase bus terminal capacity. Add mixed use TOD with ground floor retail	Miami-Dade LRTP Unfunded Needs
Multimodal Terminal	Miami-Dade LRTP Unfunded Needs
Park-and-ride facility with 90 surface spaces	Miami-Dade LRTP Unfunded Needs
Managed lanes	Miami-Dade LRTP Unfunded Needs
Pass. rail connection between the MIC and PortMiami, using SFRC/FEC corridors	Miami-Dade LRTP Unfunded Needs
New Tri-Rail Station in the vicinity of Ives Dairy Rd.	Miami-Dade LRTP Unfunded Needs

COUNTY	FACILITY NAME	LIMITS FROM	LIMITS TO
Miami-Dade	**Miami Beach City Hall/ Convention Center Intermodal Terminal**	Miami Beach Convention Center	
	87 Ave. Enhanced Bus	Palmetto Intermodal Terminal	US-1 Busway at SW 136 St. Park-and-Ride
	Collins Ave. Enhanced Bus	Miami Beach Convention Center	Aventura Terminal
	Beach Connection (fka Baylink)	Miami Downtown Terminal	Miami Beach Convention Center
	Miami Beach LRT Collins Extension	Miami Beach Convention Center	71 St.
	Park-and-Ride Facility at SW 152 St. (Coral Reed) and SR-821 (HEFT)		
	West Kendall Transit Terminal Improvements	SW 88th St. (Kendall)/ SW 162 Ave.	
	Okeechobee Enhanced Bus	SR-821 (HEFT)	Miami Intermodal Center (MIC)

DESCRIPTION	SOURCE
New terminal similar to Downtown Intermodal Terminal	Miami-Dade LRTP Unfunded Needs
Implement limited stop bus service	Miami-Dade LRTP Unfunded Needs
Enhanced bus service	Miami-Dade LRTP Unfunded Needs
Premium transit service	Miami-Dade LRTP Unfunded Needs
Extend light rail north to 71 St.	Miami-Dade LRTP Unfunded Needs
Park-and-ride facility	Miami-Dade LRTP Unfunded Needs
Improve bus hub and kiss-and-ride and expand parking	Miami-Dade LRTP Unfunded Needs
Implement new enhanced bus	Miami-Dade LRTP Unfunded Needs

MEDIUM PRIORITY PROJECTS

FIGURE 51
MEDIUM CATEGORY PROJECT PRIORITIES

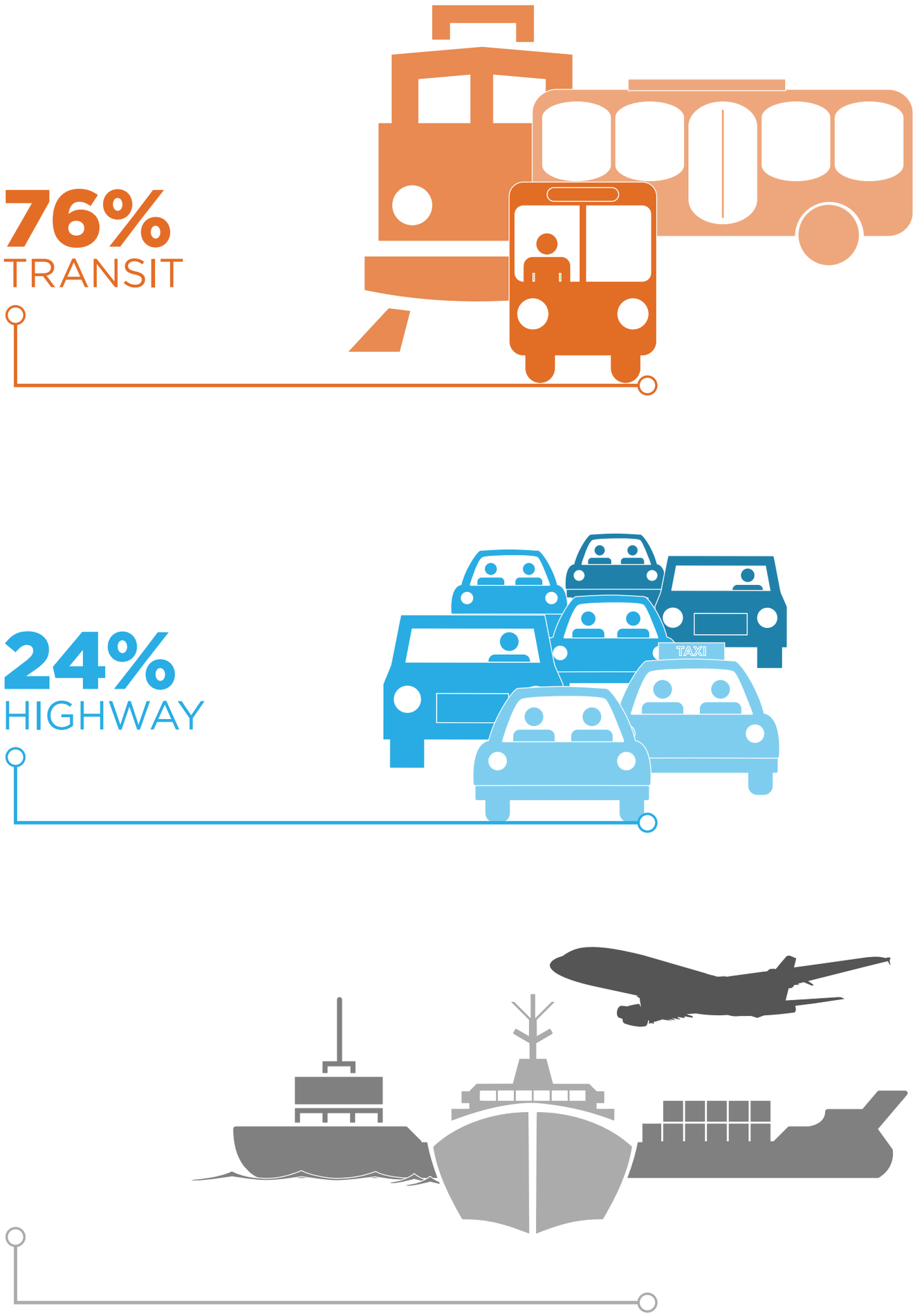


FIGURE 52
MEDIUM PRIORITY PROJECTS

TABLE 24
MEDIUM PRIORITY PROJECTS

COUNTY	FACILITY NAME	LIMITS FROM	LIMITS TO
Palm Beach	**New Tri-Rail Station**	Atlantic Ave.	Delray Beach
	New Tri-Rail Station	20th St.	Boca Raton
	I-95 Managed Lanes	Linton Blvd.	Southern Blvd.
	New Tri-Rail Station	Northwood/25 St.	West Palm Beach
	New Tri-Rail Station	Lantana Rd.	Lantana
	I-95 Managed Lanes	Southern Blvd.	Indiantown Rd.
Broward	**Military Trail**	Sample Rd.	Hillsboro Blvd.
	Hub	Ft. Lauderdale Int'l Airport Gateway Hub	at US-1/Ft. Lauderdale Int'l Airport
	Mobility Hubs at Existing Tri-Rail Stations	Deerfield Beach Station	Hollywood Station
	Ft. Lauderdale/Hollywood International	Intermodal Center (TBD)	
	South Florida Rail Corridor	at Pompano Beach Tri-Rail Station	
	SR 858/Hallandale Beach Blvd.	I-75	SR A1A
	Hub-to-Hub Connector	Sunport Hub-to-Hub	Port Everglades
Miami-Dade	**I-75**	HEFT	I-595
	Pompano Beach Tri-Rail Station	I-95	Tri-Rail Station
	I-95	Miami-Dade/Broward County Line	Broward/Palm Beach County Line
	Pompano Beach CSX-FEC Connection	SFRC/CSX Rail Corridor	FEC Railway Corridor
	Deerfield Amtrak/Tri-Rail Station	I-95	Amtrak/Tri-Rail Station
	Port Everglades	Automated People Mover/Intermodal Center	
	Miami Lakes Terminal		
	Golden Glades Multimodal Terminal (Phase 2)		
	SR-874 Ramp Connector Park-and-Ride Facility		
	I-75/Miami Gardens Dr Park-and-Ride Facility		
	Douglas Rd. Corridor BRT(SW 27/37 Ave.) Dedicated Lanes	US-1	Miami Intermodal Center (MIC)
	Okeechobee Terminal	SR-821 (HEFT)/ US-27 (Okeechobee)	
	SW 7 St./SW 8 St.	Brickell Ave.	SW 27 Ave.
	Kendall Area LRT	Metrozoo Area	Dadeland

DESCRIPTION	SOURCE
Tri-Rail Coastal Link station on FEC corridor	Palm Beach LRTP Unfunded Needs
Additional Tri-Rail Coastal Link Station on FEC corridor	Palm Beach LRTP Unfunded Needs
Add Managed Lanes	Palm Beach LRTP Unfunded Needs
Additional Tri-Rail Coastal Link Station on FEC corridor	Palm Beach LRTP Unfunded Needs
Additional Tri-Rail Coastal Link Station on FEC corridor	Palm Beach LRTP Unfunded Needs
Add Managed Lanes	Palm Beach LRTP Unfunded Needs
Extend local bus service	Broward LRTP Unfunded Needs
New Hub	SIS Multimodal Unfunded Needs Plan
Mobility Hubs	SFRTA Unfunded Needs
Terminal People Mover	SIS Multimodal Unfunded Needs Plan
Station Improvements	SIS Multimodal Unfunded Needs Plan
Corridor upgrades to support enhanced bus service	Broward LRTP Unfunded Needs
People Mover/Bus Rapid Transit	SIS Multimodal Unfunded Needs Plan
Add 4 Special Use Lanes	SIS Multimodal Unfunded Needs Plan
Modify Connector	SIS Multimodal Unfunded Needs Plan
Add 2 Special Use Lanes	SIS Multimodal Unfunded Needs Plan
Improved east-west rail connection	SFRTA Unfunded Needs
Modify Connector	SIS Multimodal Unfunded Needs Plan
People Mover	SIS Multimodal Unfunded Needs Plan
Add new park-and-ride facility at SR-826 (Palmetto)/NW 154 St.	Miami-Dade LRTP Unfunded Needs
Parking-and-ride facility with 1,800 space garage	Miami-Dade LRTP Unfunded Needs
Park-and-ride facility	Miami-Dade LRTP Unfunded Needs
Park-and-ride facility	Miami-Dade LRTP Unfunded Needs
Full bus rapid transit	Miami-Dade LRTP Unfunded Needs
Park-and-ride facility with a minimum of 250 spaces	Miami-Dade LRTP Unfunded Needs
Operational and capacity improvements	Miami-Dade LRTP Unfunded Needs
New premium transit service	Miami-Dade LRTP Unfunded Needs

COUNTY	FACILITY NAME	LIMITS FROM	LIMITS TO
Miami-Dade	**US-1 - Managed Lanes**	SW 344 St. (Palm)	Dadeland South Metrorail Station
	PortMiami Multimodal Terminal		
	Miami Beach Intermodal Center	63rd (Collins)	87 St./West Bay Dr
	Kendall South/Zoo Miami	Zoo Miami Park	
	Busway/SW 112th St./Killian Pkwy	SW 112 St.	US-1 Busway
	Expand overcapacity Park-and-Ride lot at SW 168th St.	SW 168th St.	
	Bird Rd. (SW 40) Enhanced Bus	SW 8th St. (Tamiami)/ SW 147th Ave.	Douglas Metrorail Station

DESCRIPTION	SOURCE
Add 2 plus 1 reversible new managed lanes within the ROW of the Busway	Miami-Dade LRTP Unfunded Needs
Intermodal terminal to serve cruise terminal passengers	Miami-Dade LRTP Unfunded Needs
New North Beach bus transfer station	Miami-Dade LRTP Unfunded Needs
Park-and-ride facility	Miami-Dade LRTP Unfunded Needs
Park-and-ride facility with minimum of 200 spaces	Miami-Dade LRTP Unfunded Needs
Add 300 parking spaces	Miami-Dade LRTP Unfunded Needs
Implement limited stop bus service	Miami-Dade LRTP Unfunded Needs

MED-LOW PRIORITY PROJECTS

FIGURE 53
MED-LOW CATEGORY PROJECT PRIORITIES

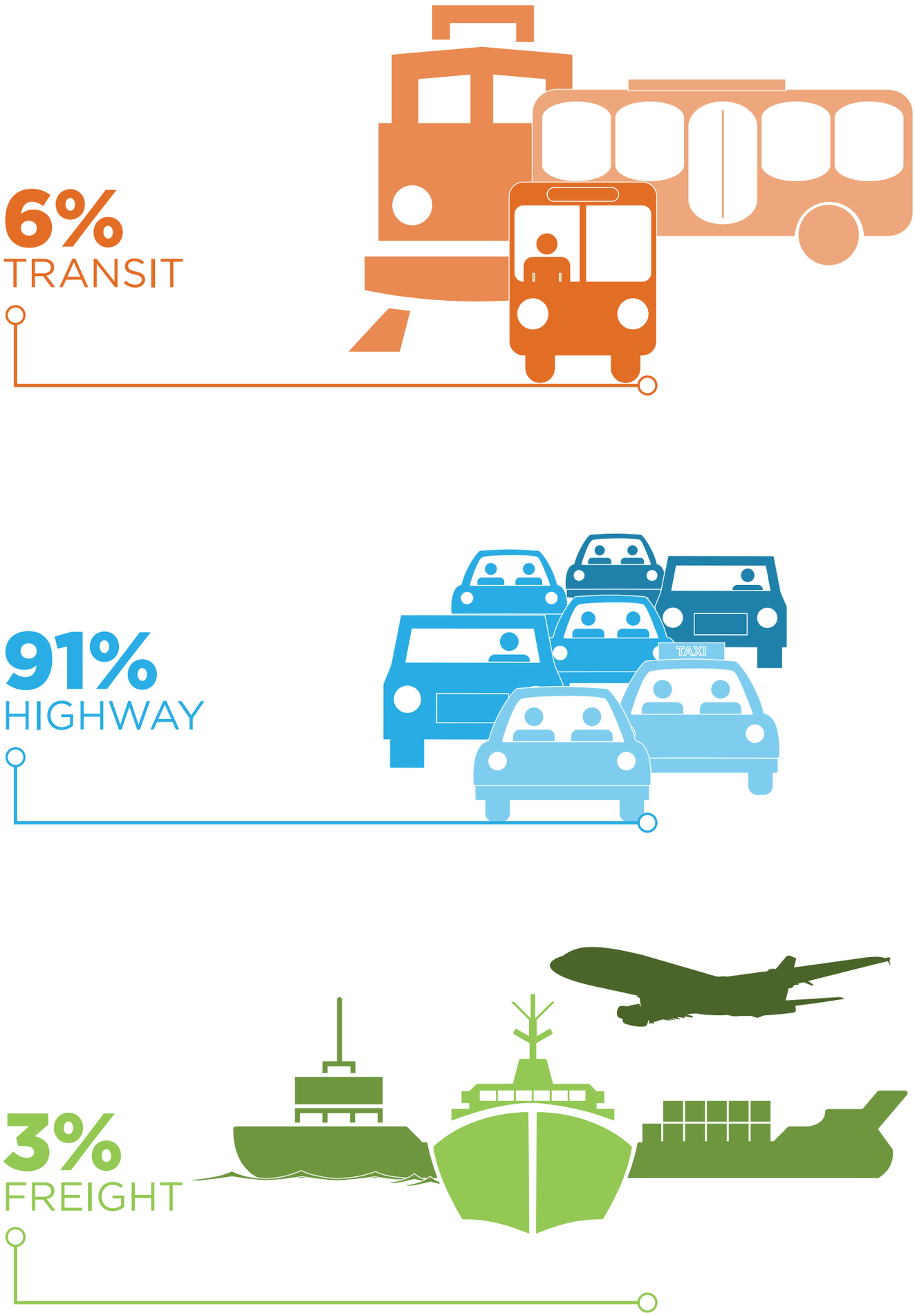


FIGURE 54
MED-LOW PRIORITY PROJECTS

TABLE 25
MED-LOW PRIORITY PROJECTS

COUNTY	FACILITY NAME	LIMITS FROM	LIMITS TO
Palm Beach	**I-95**	at Forest Hill Blvd.	
	I-95	at Woolbright Rd.	
	I-95	at Glades Rd.	Inc. Aux. Lanes Executive Center Dr to NW13st St./FAU Blvd.
	I-95	at Okeechobee Blvd.	
	SR 80	Forest Hill/Crestwood	Royal Palm Beach Blvd.
Broward	**Coral Hills Drive**	NW 29th St.	SR 834/Sample Ave.
	Turnpike Mainline/SR 91	County Line Rd.	HEFT
	Ft. Lauderdale FEC Intermodal Terminal	I-95	FEC Terminal
	Cypress Creek Tri-Rail Station	I-95	Tri-Rail Station
	Ft Lauderdale Greyhound Bus Terminal	I-95	Terminal
	FLL Airport (gate) northside entrance	I-95	Northside FLL Airport delivery entrance
	NW 33rd St.	Coral Hills Drive	NW 99th Way
	Hollywood Amtrak/Tri-Rail Station	I-95	Tri-Rail Station
	Turnpike Mainline/SR 91	HEFT	North of Johnson St.
	Port Everglades	Multimodal Facility	
	Ft Lauderdale Amtrak/Tri-Rail	Broward Boulevard at I-95	Amtrak/Tri-Rail Station
	SR 838/Sunrise Blvd.	Sawgrass Corporate Center	SR 869/Sawgrass Expy.
	SR 814/Atlantic Blvd.	Cypress Rd.	SR 5/US 1
	Turnpike Mainline/SR 91	North of Atlantic Boulevard	Sawgrass Expressway
	Intersection Improvement	SR 7/US 441 at SR 820/Hollywood Blvd.	
	Ft Lauderdale International Airport	US 1	Direct Airport Access
	Deerfield Beach Station New Parking Deck	Existing Deerfield Beach Station	

DESCRIPTION	SOURCE
Interchange Improvement	Palm Beach LRTP Unfunded Needs
Interchange Improvement	Palm Beach LRTP Unfunded Needs
Interchange Improvement	Palm Beach LRTP Unfunded Needs
Interchange Improvement	Palm Beach LRTP Unfunded Needs
Add 2 lanes (from 6 to 8)	Palm Beach LRTP Unfunded Needs
Reconstruct roadway to include multimodal alternatives	Broward LRTP Unfunded Needs
Add 2 lanes (from 8 to 10)	SIS Multimodal Unfunded Needs Plan
Modify Connector	SIS Multimodal Unfunded Needs Plan
Modify Connector	SIS Multimodal Unfunded Needs Plan
Modify Connector	SIS Multimodal Unfunded Needs Plan
Modify Connector	SIS Multimodal Unfunded Needs Plan
Reconstruct roadway to include multimodal alternatives	Broward LRTP Unfunded Needs
Modify Connector	SIS Multimodal Unfunded Needs Plan
Add 2 lanes (from 6 to 8)	SIS Multimodal Unfunded Needs Plan
Intermodal Transfer Impv	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
Reconstruct roadway to include turn lanes	Broward LRTP Unfunded Needs
Restripe to 6 lanes	Broward LRTP Unfunded Needs
Add 2 lanes (from 6 to 8)	SIS Multimodal Unfunded Needs Plan
Reconstruct intersection	Broward LRTP Unfunded Needs
New Connector	SIS Multimodal Unfunded Needs Plan
New structured parking	SFRTA Unfunded Needs

COUNTY	FACILITY NAME	LIMITS FROM	LIMITS TO
Miami-Dade	**I-95**	South of SR-836 (Dolphin) /I-395	Broward County Line
	NE 163 St. (Sunny Isles Blvd.)/167 St.	Golden Glades Terminal	Sunn Isles Blvd./ Collins Ave.
	MDX Connect 4 Express	Central Miami-Dade County	North Miami-Dade County
	NW 36 St./NW 41 St.	SR-821 (HEFT)	NW 42 Ave. (LeJeune)
	Miami Intermodal Center (MIC)		
	SR-826 (Palmetto)	West of NW 32 Ave.	East of NW 27 Ave.
	I-95	US-1	South of SR 836/I-395
	SR-826 (Palmetto)	East of NW 67 Ave.	East of NW 57 Ave.
	SR-826 (Palmetto)	West Flagler St.	NW 154 St.
	MDX SR-924/Gratigny Parkway East Extension	NW 32 Ave.	I-95

DESCRIPTION	SOURCE
Operational and Capacity Improvements	Miami-Dade LRTP Unfunded Needs
Implement limited stop bus service	Miami-Dade LRTP Unfunded Needs
New expressway connecting SR-836, SR-112 , SR-924, and SR-826	Miami-Dade LRTP Unfunded Needs
Redesign NW 36 St./41 St. as a superarterial express street	Miami-Dade LRTP Unfunded Needs
NW 42 Ave. (LeJeune) Strip	Miami-Dade LRTP Unfunded Needs
Capacity and operational improvements	Miami-Dade LRTP Unfunded Needs
Operational and Capacity Improvements	Miami-Dade LRTP Unfunded Needs
Capacity and operational improvements	Miami-Dade LRTP Unfunded Needs
	Miami-Dade LRTP Unfunded Needs
New expressway extension of SR-924 East to I-95	Miami-Dade LRTP Unfunded Needs

LOW PRIORITY PROJECTS

FIGURE 55
LOW CATEGORY PROJECT PRIORITIES

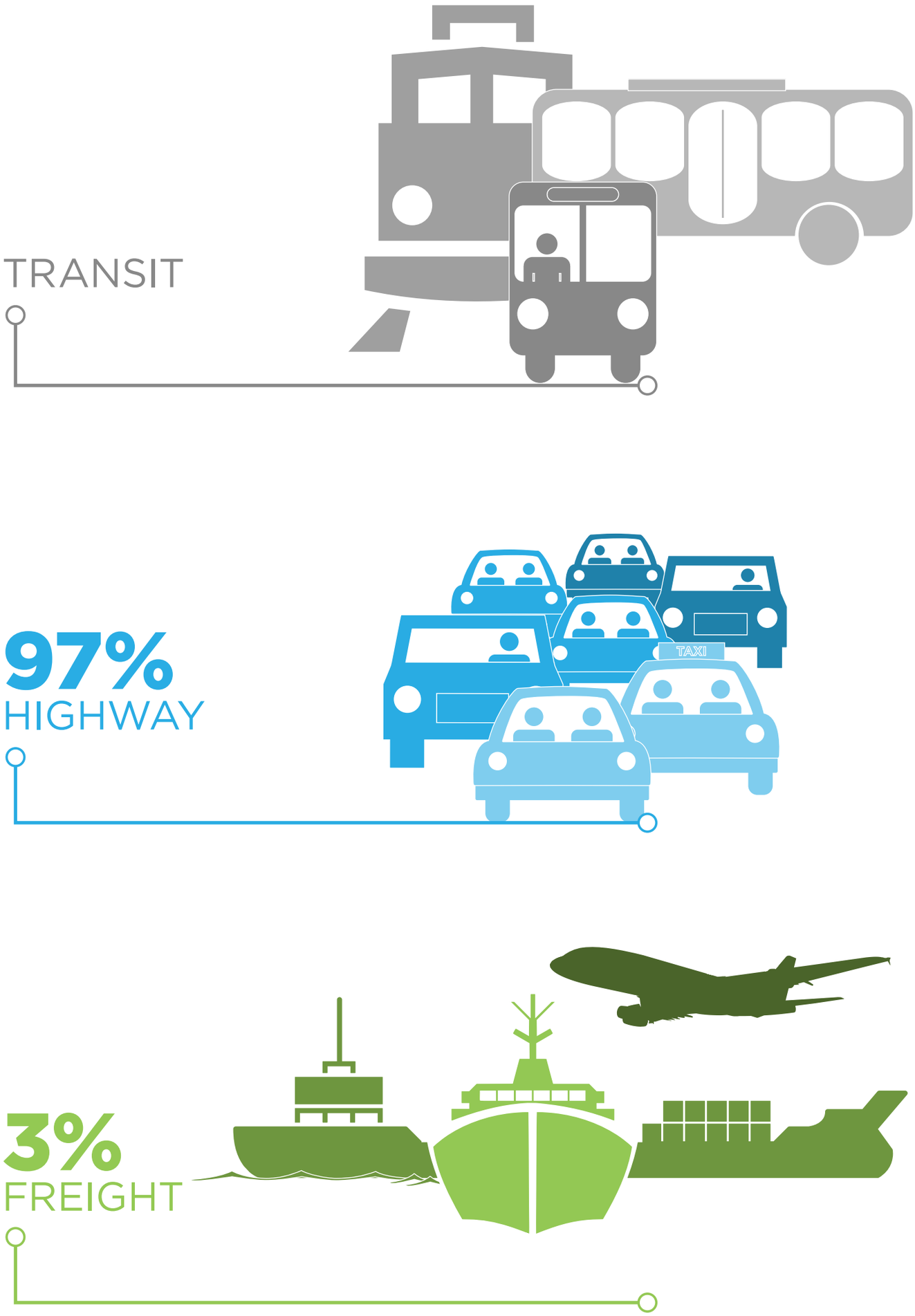


FIGURE 56
LOW PRIORITY PROJECTS

TABLE 26
LOW PRIORITY PROJECTS

COUNTY	FACILITY NAME	LIMITS FROM	LIMITS TO
Palm Beach	**I-95**	at 45th St.	
	I-95	at Northlake Blvd.	
	I-95	at Belvedere Rd.	
	New Freight Rail Corridor	Hendry/PB County Line	Port of Miami via US 27*
	I-95	at Indiantown Rd.	
	Direct Connect from Turnpike to I-95 at Indiantown Rd.	Turnpike	I-95
Broward	**Intersection Improvement**	SR 820/Pines Blvd. at SR 817/University Drive	
	US 27	Pembroke Rd.	South of Stirling Rd.
	Turnpike Mainline/SR 91	at Hollywood Boulevard	
	US 27	Dade/Broward County Line	I-75
	Turnpike Mainline/SR 91	Sawgrass Expressway	Broward/Palm Beach County Line
	I-595 ML Connection	I-595 Managed Lanes	I-95 Managed Lanes
	I-595 EB Causeway	East of Turnpike East Bound	East of SR 7
	Turnpike Mainline/SR 91	North of Johnson St.	Griffin Rd.
	I-75	at Sawgrass Expressway	
	I-75	at SR 820/Pines Boulevard	
	I-75	at Griffin Rd.	
	Turnpike Mainline/SR 91	at Commercial Boulevard	
	US 27	South of Stirling Rd.	SW 26th St. (North of Griffin Rd.)
	I-595 WB Causeway	at I-95/I-595 Interchange	
	US 27	I-75	Broward/Palm Beach County Line
	I-75	at Sheridan St.	
	US 27	at Pines Boulevard	
	Turnpike Mainline/SR 91	at Sunrise Boulevard	
	SW 10th St.	Turnpike	I-95
	US 27	at Griffin Rd.	
	US 27	at Stirling Rd.	
	US 27	at Sheridan St.	
	I-75	at Miramar Parkway	
	US 27	at Pembroke Rd.	
	SR 822/Sheridan St.	SW 148th Ave.	Douglas St.

DESCRIPTION	SOURCE
Interchange Improvement	Palm Beach LRTP Unfunded Needs
Interchange Improvement	Palm Beach LRTP Unfunded Needs
Interchange Improvement	Palm Beach LRTP Unfunded Needs
New Freight Rail Line via SR 80 in South Bay including Utility Relocation	Palm Beach LRTP Unfunded Needs
Interchange Improvement	Palm Beach LRTP Unfunded Needs
New Direct Connector	Palm Beach LRTP Unfunded Needs
Reconstruct intersection	Broward LRTP Unfunded Needs
SERV - add service/frontage/C-D system	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
Add 2 lanes (from 4 to 6)	SIS Multimodal Unfunded Needs Plan
Add 2 lanes (from 6 to 8)	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
Add 2 lanes (from 6 to 8)	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
SERV - add service/frontage/C-D system	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
Add 2 lanes (from 4 to 6)	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
New Interchange	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
Add 2 lanes (from 4 to 6)	SIS Multimodal Unfunded Needs Plan
New Interchange	SIS Multimodal Unfunded Needs Plan
New Interchange	SIS Multimodal Unfunded Needs Plan
New Interchange	SIS Multimodal Unfunded Needs Plan
Modify Interchange	SIS Multimodal Unfunded Needs Plan
New Interchange	SIS Multimodal Unfunded Needs Plan
Add 2 lanes (from 4 to 6)	Broward LRTP Unfunded Needs

COUNTY	FACILITY NAME	LIMITS FROM	LIMITS TO
Miami-Dade	**MDX SR-836 (Dolphin) SouthWest Extension**	Western Terminus of SR-836 (Dolphin)	SW 136 St.
	SW 88 St. (Kendall)/SW 127 Ave. Grade Separation		
	SW 117 Ave./SW 152 St. (Coral Reef) Grade Separation		

DESCRIPTION	SOURCE
Extend SR-836 from NW 137 Ave. to the Southwest Kendall area	Miami-Dade LRTP Unfunded Needs
Grade separate SW 88 St. (Kendall) over SW 127 Ave.	Miami-Dade LRTP Unfunded Needs
Grade separate SW 117 Ave. over SW 152 St. (Coral Reef)	Miami-Dade LRTP Unfunded Needs


DO NOT
STOP
ON
TRACKS

SECTION

14

A PLAN IN ACTION

This plan is the starting point for achieving our region's goal of having a seamless system of multimodal facilities that meets the travel needs of people and freight. This has become a possibility because of our coordinated regional planning and decision making process.

The RTP is a plan focused on transportation, but it is through transportation that communities and economies are built, grown, and able to prosper. The outcomes of this document lay the groundwork for identifying where strategic investments ought to be made at the regional level in order to protect and enhance the quality of life for the communities of Palm Beach, Broward and Miami-Dade Counties. Beyond this Plan's adoption, investments will be implemented in a prioritized fashion based on the decisions made during the 2040 horizon year planning process from both the county and regional-level perspectives.

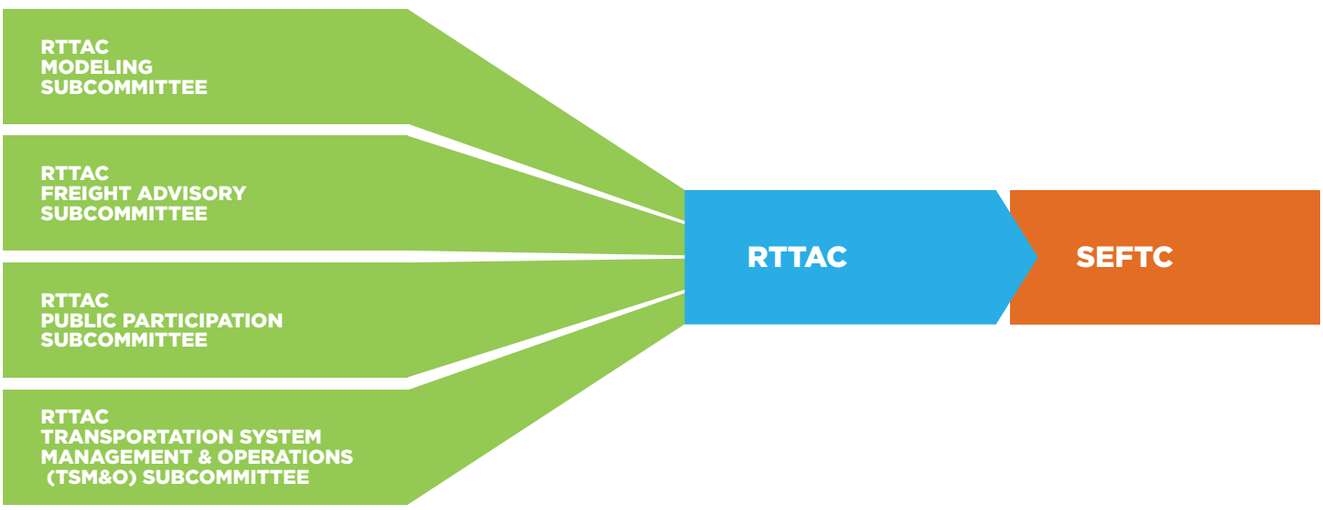
PUTTING THE PLAN INTO ACTION

Developing and adopting the 2040 RTP is the first step in achieving our goals of having a transportation system that is interconnected, accessible, efficient, and safe. Putting the plan into action requires coordination, collaboration and development of priorities with planning partners through the SEFTC committee structure and coordination with regional partners.

ADOPTION PROCESS

Starting in 2012, the 2040 RTP development was coordinated and guided by several formalized committees from the beginning through adoption. In July 2015, the 2040 RTP was adopted by the SEFTC. Figure 57 shows the organizational structure of these committees and the decision-making process.

FIGURE 57
DECISION-MAKING PROCESS

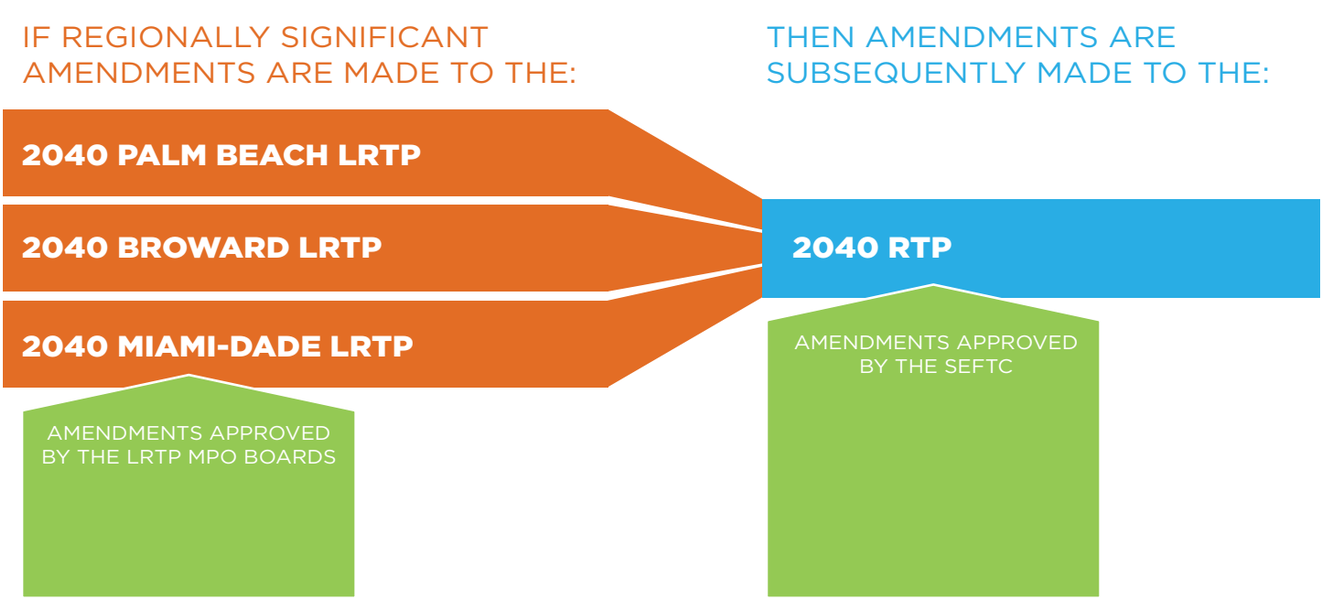


A LIVING DOCUMENT

As a living document, the 2040 RTP may be adjusted as implementation occurs. Among adjustments that are likely to be taken during the planning period are: addition of projects; policies and investment options; removal of existing actions and investments, if appropriate; changes in the status of actions and investments within the plan; changes in the financial analysis underlying the plan; and changes due to new or updated federal legislation or regulation. Post adoption of the RTP, it is the sole responsibility of each MPO in the region to coordinate their respective 2040 LRTP adjustments with the regional group.

If and when an amendment to the 2040 RTP occurs, fiscal constraints will be fully considered. Any amendments to the plan will vetted through the Regional Transportation Technical Advisory Committee and undertaken by resolution through the Southeast Florida Transportation Council.

FIGURE 58
AMENDMENT PROCESS



LINKAGE TO THE TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

Post RTP and respective LRTP adoptions, implementation of project recommendations occurs through the programming of transportation improvements. For projects within the planning area that are funded or considered regionally significant, the MPOs, in consultation with transportation planning partners, including airport, seaport, transit, local government agencies and the Florida Department of Transportation, determines which projects are to be advanced from the RTP/LRTPs into the MPOs' short-term transportation Improvement Program (TIP).

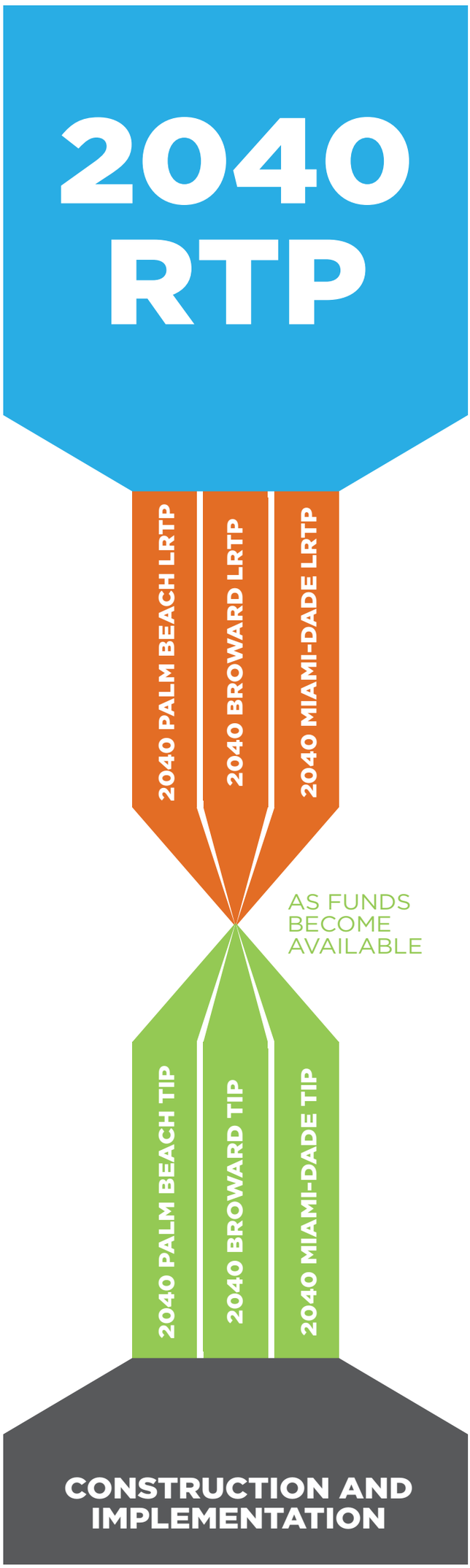
The development of the three TIPs follows the development of the three 2040 LRTPs and the RTP. The TIPs are a staged multi-year program that prioritizes transportation improvement projects for federal, state and local funding. The three TIPs collectively are also the capital improvements element of RTP. The TIPs have a role in putting the RTP into action.

Metaphorically speaking, if the projects contained in the 2040 RTP acts as a warehouse full of transportation projects for the next 20-plus years, then the TIPs are the vehicles that carries those projects to the market. The TIPs not only list specific projects, but also the anticipated schedules and costs for each project. Like the LRTP, the projects in the TIP must be financially constrained, undergo a series of evaluations, and include opportunity for public comment.

The TIPs are also 'living' documents, meaning that it needs to stay current and up-to-date at all times given it's important role in documenting the funding and implementation schedule of near-term (the next five-years' worth) of investments. After they have been formally approved, any changes, known as an amendment, can occur for a variety of reasons. Frequently, projects may be added to meet changing priorities or to take advantage of a special opportunity. Amendments must undergo the same review and public scrutiny as the original TIP.

Beyond programming the projects, the MPO along with transportation partners in the region, monitor the progress and performance of the system and overall process as a way to gauge the impacts of the decision-making process on the transportation system.

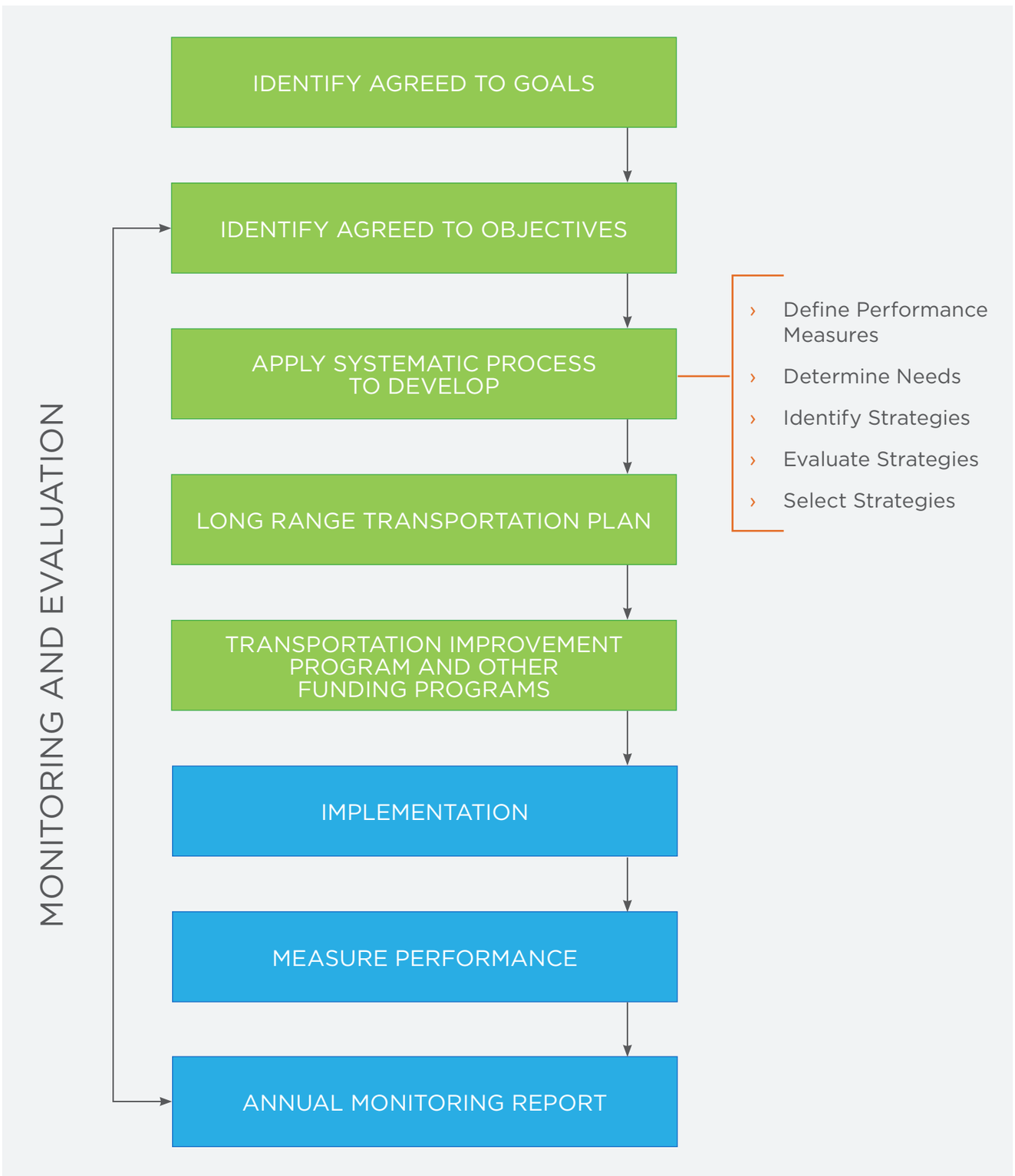
FIGURE 59
RTP TO LRTP TO TIP GRAPHIC



MONITORING PERFORMANCE

Monitoring the performance of the transportation system goes hand-in-hand with planning for the transportation system. Without monitoring, the industry cannot truly understand the existing issues, forecast potential issues, and identify appropriate solutions and make investments to improve the conditions. Monitoring performance is achieved through measuring performance. Performance measurement is a way to gauge the impacts of the decision-making process on the transportation system. Performance measures aim to answer questions about whether the performance of the system is getting better or worse over time and whether transportation investments are correlated or linked to stated goals and outcomes. The recently-passed transportation reauthorization bill Moving Ahead for Progress in the 21st Century (MAP-21) features a new federal emphasis on performance measurement. The 2040 RTP is consistent with this performance-based focus, which promotes the transparency of public data and decision-making and seeks to improve the accountability of public spending by better linking investments to outcomes. Figure 60 gives a visual depiction of how monitoring plays a role in the transportation planning process.

FIGURE 60
AN OBJECTIVES-DRIVEN, PERFORMANCE-BASED APPROACH TO PLANNING



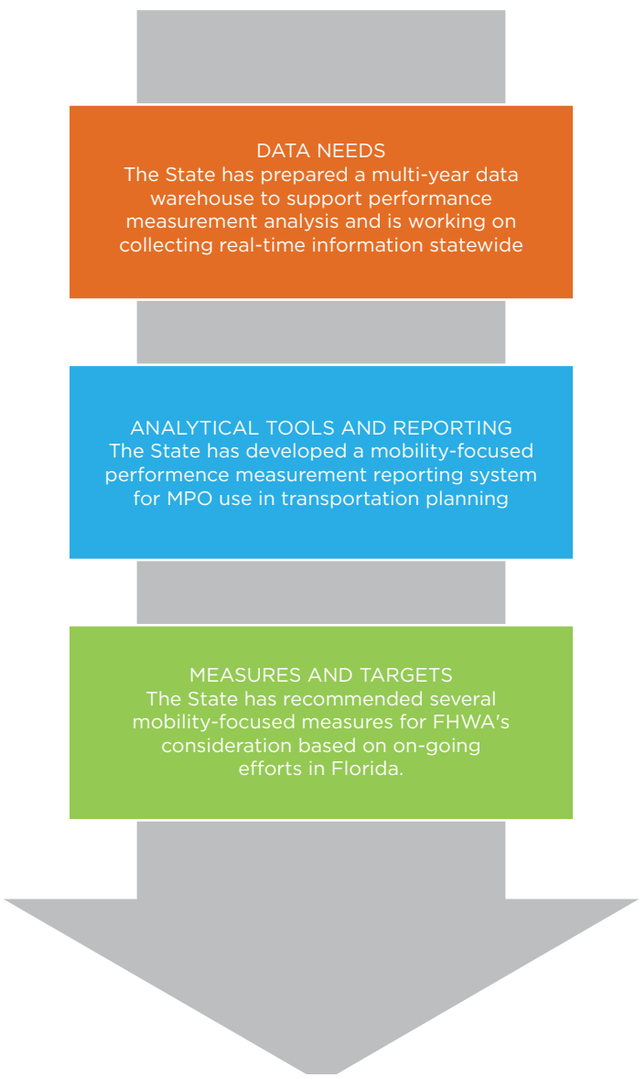
A PERSPECTIVE FROM THE STATE LEVEL

The Florida Department of Transportation (FDOT) Central Office has been at the forefront of MAP-21, staying in close coordination with FHWA, the FTA, the FDOT Districts, and MPOs throughout the State of Florida. In anticipation of the performance measurement and target requirements that are set to be released in 2015, the FDOT has done the following (as summarized in Figure 61):

- Recommended mobility-related performance measures to FHWA,
- Prepared analytical tools using current and historical data, and
- Published a statewide report called the Florida's Mobility Performance Measures (MPM) Source Book that summarizes over a 10-year period of mobility metrics.

The SEFTC is one of many players working alongside Central Office to determine how effective these newly developed tools are at depicting real-world conditions, and also how they can be best integrated into the transportation planning process.

FIGURE 61
EXAMPLES OF FLORIDA DEPARTMENT OF TRANSPORTATION ACTIVITIES RELATED TO MOBILITY PERFORMANCE MEASUREMENT



RECOMMENDED MOBILITY-FOCUSED PERFORMANCE MEASURES FROM OTHER PARTIES

Several agencies have been recommending specific performance measures to FHWA for consideration. Recommendations have been based on various factors, with two primary ones being: availability of data; and the value-added (i.e., what does the measure tell us and how will it effectively help guide agency investment decisions) to planning, implementation, and operations and maintenance programs. Below are some examples of mobility-focused recommendations provided to-date by both the American Association of State Highway and Transportation Officials (AASHTO) and the FDOT.

FIGURE 62
AASHTO RECOMMENDATIONS FOR MOBILITY RELATED PERFORMANCE MEASURES

CONGESTION MITIGATION

- Should apply only to non-attainment areas 1,000,000+ population

NATIONAL HIGHWAY PERFORMANCE PROGRAM

- Delay
- Travel time reliability

FREIGHT MOVEMENT

- Delay
- Travel time reliability

FIGURE 63
FDOT RECOMMENDATIONS FOR MOBILITY RELATED PERFORMANCE MEASURES

CONGESTION MITIGATION

- Vehicle miles traveled
- % travel meeting generally acceptable operating conditions
- Travel time reliability
- Delay
- % miles severely congested

A PILOT FOR STATEWIDE MOBILITY PERFORMANCE MEASURES

The Florida Department of Transportation Central Office (i.e., Headquarters) has been collecting transportation related data and reporting on the performance of the State Highway System (SHS) and National Highway System (NHS) for decades. This reporting system, known as the Source Books, serves as FDOT's official report on performance metrics essential to transportation planning. The Transportation Statistics Office produces two Source Books: the Multimodal Mobility Performance Measures Source Book and a companion General Interest Highway Statistics Source Book that includes data on public roads. The Source Book is published annually and represents data and analysis for the State Highway System (SHS) including the Strategic Intermodal System (SIS).

Statewide measures reported in the Source Books are used by FDOT's Policy Planning Office to track FDOT's progress in reaching transportation planning goals and also meets Federal requirements for reporting system performance. To comply with MAP-21 requirements, the FDOT Central Office has prepared performance measures with one series focusing on multimodal mobility. Mobility performance measures are used in systems planning and metropolitan planning to identify the location, scale and nature of transportation problems and needs to identify possible solutions to these problems.

The Florida Multimodal Mobility Performance Measures Source Book is a compendium of current and historical data and analysis describing the performance of Florida's transportation system. It is intended to be the primary source of mobility performance measure results for the State of Florida. Measures in this Source Book are categorized into four dimensions of mobility, as shown in Figure 64, and considers six major travel modes including automobile, aviation, bicycle, pedestrian, transit, and truck. The measures may be applied statewide, in an area-wide analysis (e.g., Southeast Florida), or by roadway (e.g., I-95).

Although over the years, the Source Book has been annually reporting performance measures, it was not being reporting at the County, Urbanized Area or MPO level. Therefore, in 2014, Central Office partnered with the SEFTC to conduct a pilot test on the production of data for performance measures for the three individual counties, Urbanized Area, and MPO planning area boundaries for 9 of the 33 Mobility Performance Measures. It is anticipated that the reporting of these measures can be used for future MAP-21 purposes and general tracking of performance for use in LRTP planning processes. Results of the pilot study are summarized within the following pages.

FIGURE 64
DIMENSIONS OF MOBILITY PERFORMANCE MEASURES

QUANTITY OF TRAVEL

The quantity of travel deals with the magnitude of travel on a facility or service; how much freight is moved and people served. The measures of quantity are:

1. Vehicle Miles Traveled
2. Person Miles Traveled
3. Passenger Miles Traveled
4. Passenger Trips
5. Aviation, Rail, and Seaport Passengers
6. Combination Truck Miles Traveled
7. Truck Miles Traveled
8. Combination Truck Tonnage
9. Combination Truck Ton Miles Traveled
10. Aviation, Rail, and Seaport Tonnage
11. Twenty-Foot Equivalent Units

QUALITY OF TRAVEL

The quality of travel describes how good or bad the travel experience is. This dimension of mobility has been the traditional focus for measures of effectiveness such as level of service (LOS). The measures of quality are:

1. % Travel Meeting LOS Criteria
2. % Miles Meeting LOS Criteria
3. Travel Time Reliability
4. Travel Time Variability
5. Vehicle Hours of Delay
6. Person Hours of Delay
7. Average Travel Speed
8. Average Headway
9. Pedestrian and Bicycle LOS
10. Aviation and Rail Departure Reliability
11. Combination Truck Hours of Delay
12. Combination Truck Average Travel Speed

ACCESSIBILITY

Accessibility deals with the ease in engaging in activities. Such measures encompass the concepts of connectivity, modal options, and time to reach destinations. The measures of accessibility are:

1. % Sidewalk Coverage
2. % Bike Lane/Shoulder Coverage
3. Aviation, Rail, and Seaport Highway Adequacy
4. Active Rail Access

UTILIZATION

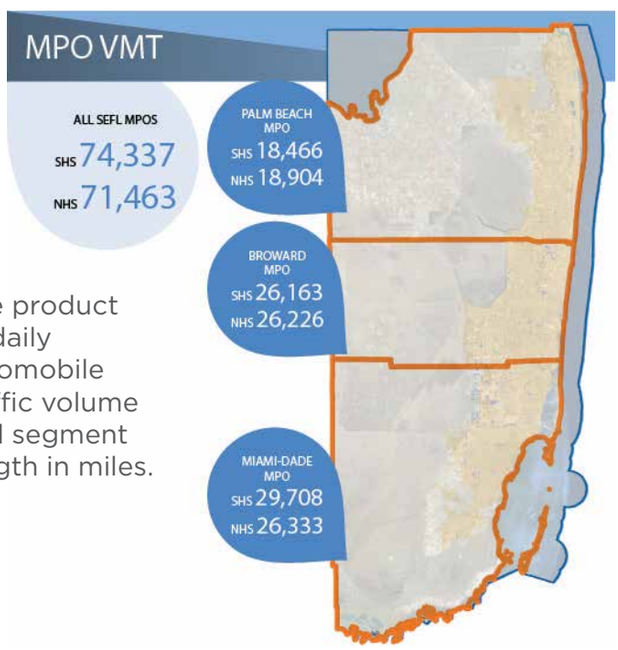
Utilization measures deal with how much of the transportation system is used and availability left. They indirectly relate to users' perceptions of how crowded transportation facilities or services are. However, they primarily describe the relative demand and supply of transportation facilities and services. The measures of utilization are:

1. % Miles Severely Congested
2. % Travel Severely Congested
3. Hours Severely Congested
4. Vehicles Per Lane Mile
5. Aviation Demand to Capacity Ratios
6. Combination Truck Backhaul Tonnage

SETTING A BENCHMARK FOR MOBILITY PERFORMANCE IN SOUTHEAST FLORIDA

Once the technical analyses and testing was completed, Central Office and the RTTAC deemed that the pilot test was successful for MPO use as desired (i.e., for MAP-21, LRTPs, CMPs, setting benchmarks and targets, etc.). The following figures summarize the 9 performance metrics tested for the various MPO boundaries in Southeast Florida for the year 2014.

FIGURE 65
DAILY VEHICLE MILES TRAVELED (VMT)



The product of daily automobile traffic volume and segment length in miles.

Notes

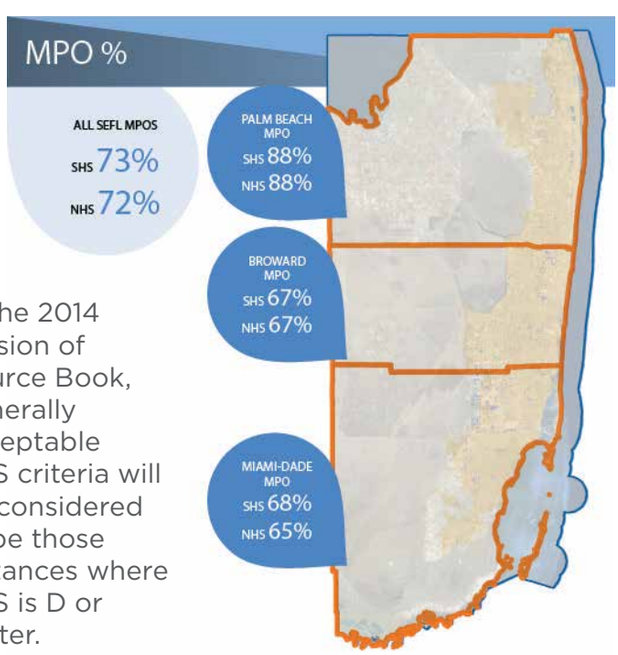
VMT REPORTED IN 1,000 VMT

SHS: State Highway System

NHS: National Highway System

MPO: Metropolitan Planning Organization

FIGURE 66
PERCENT OF TRAVEL MEETING LOS CRITERIA IN PEAK PERIOD



In the 2014 version of Source Book, generally acceptable LOS criteria will be considered to be those instances where LOS is D or better.

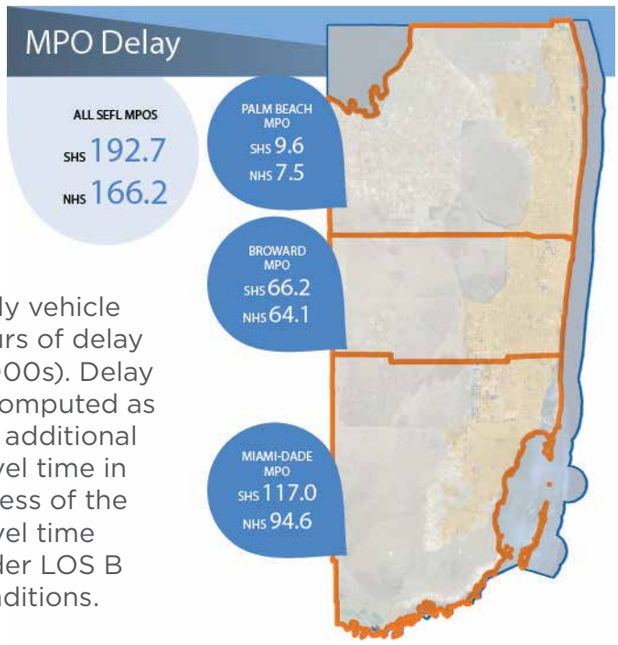
Notes

SHS: State Highway System

NHS: National Highway System

MPO: Metropolitan Planning Organization

FIGURE 67
VEHICLE HOURS OF DELAY



Daily vehicle hours of delay (1,000s). Delay is computed as the additional travel time in excess of the travel time under LOS B conditions.

Notes

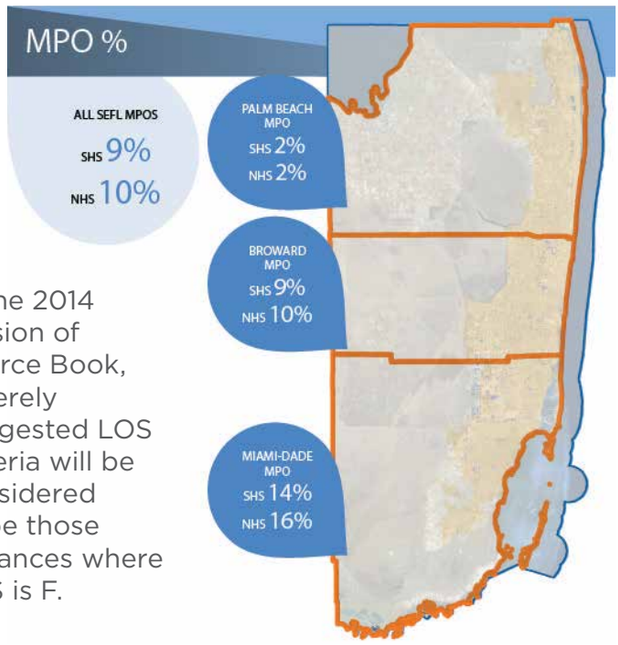
DELAY REPORTED IN 1,000 Hours

SHS: State Highway System

NHS: National Highway System

MPO: Metropolitan Planning Organization

FIGURE 68
PERCENT OF MILES SEVERELY CONGESTED IN THE PEAK HOUR



In the 2014 version of Source Book, severely congested LOS criteria will be considered to be those instances where LOS is F.

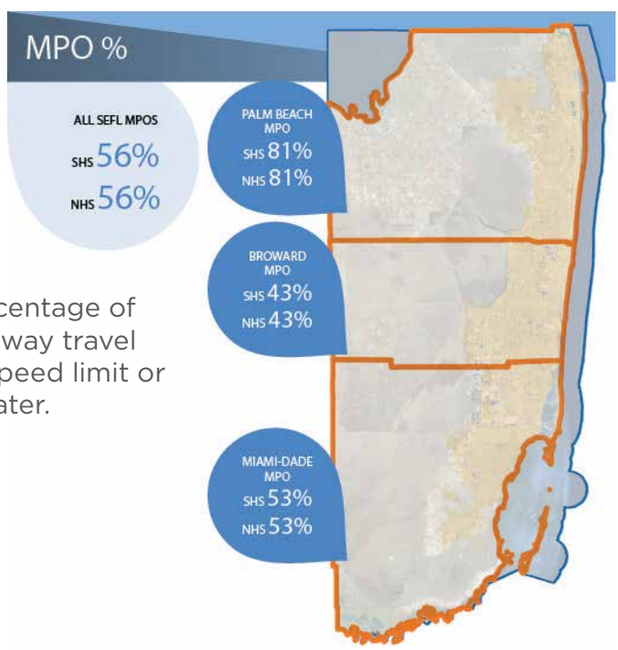
Notes

SHS: State Highway System

NHS: National Highway System

MPO: Metropolitan Planning Organization

FIGURE 69
TRAVEL TIME RELIABILITY IN THE PEAK PERIOD



Percentage of freeway travel at speed limit or greater.

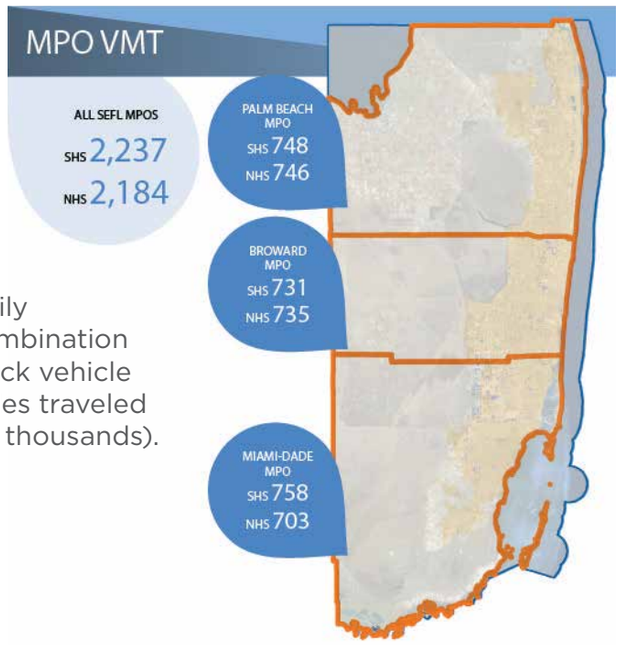
Notes

SHS: State Highway System

NHS: National Highway System

MPO: Metropolitan Planning Organization

FIGURE 70
COMBINATION TRUCK MILES TRAVELED



Daily combination truck vehicle miles traveled (in thousands).

Notes

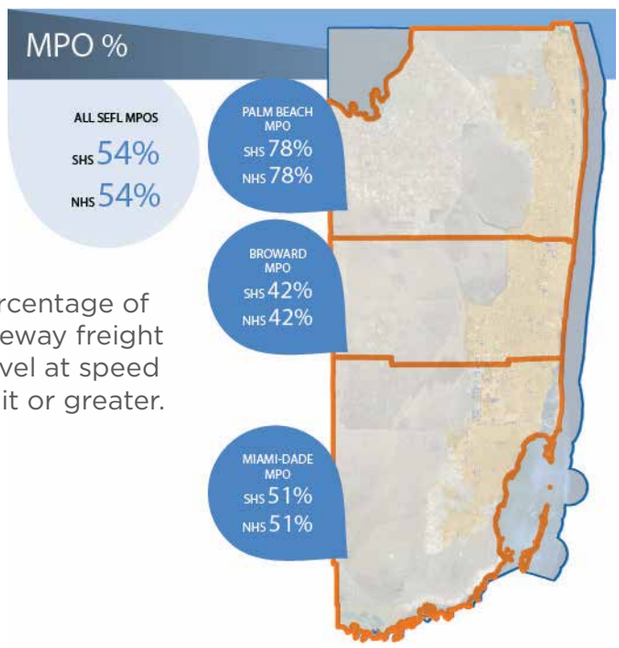
VMT REPORTED IN 1,000 VMT

SHS: State Highway System

NHS: National Highway System

MPO: Metropolitan Planning Organization

FIGURE 71
FREIGHT TRAVEL TIME RELIABILITY IN THE PEAK PERIOD



Percentage of freeway freight travel at speed limit or greater.

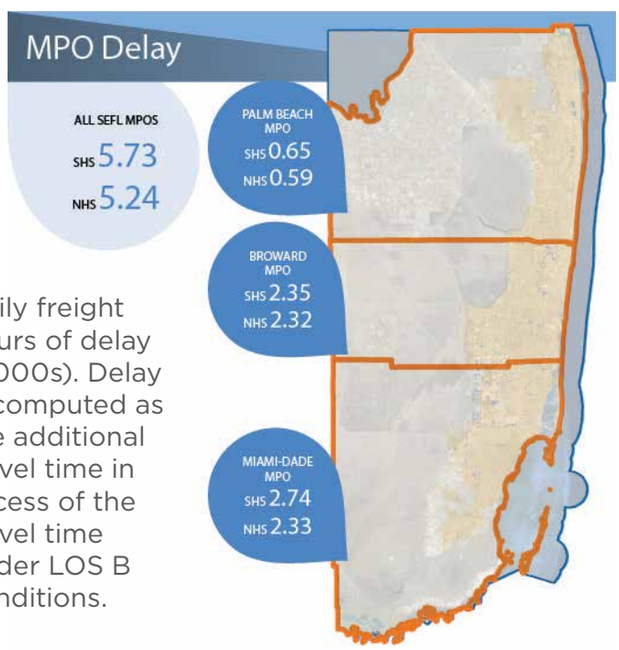
Notes

SHS: State Highway System

NHS: National Highway System

MPO: Metropolitan Planning Organization

FIGURE 72
FREIGHT HOURS OF DELAY



Daily freight hours of delay (1,000s). Delay is computed as the additional travel time in excess of the travel time under LOS B conditions.

Notes

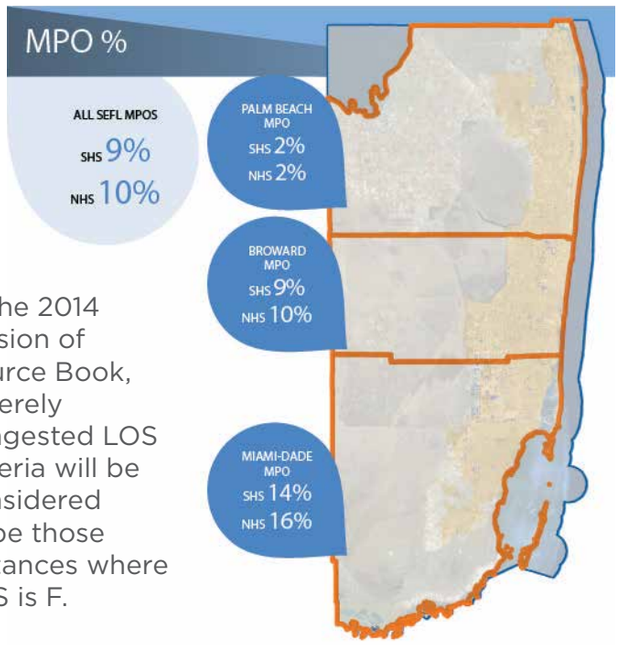
DELAY REPORTED IN 1,000 Hours

SHS: State Highway System

NHS: National Highway System

MPO: Metropolitan Planning Organization

FIGURE 73
FREIGHT PERCENT OF MILES SEVERELY CONGESTED IN THE PEAK HOUR



In the 2014 version of Source Book, severely congested LOS criteria will be considered to be those instances where LOS is F.

Notes

SHS: State Highway System

NHS: National Highway System

MPO: Metropolitan Planning Organization

PERFORMANCE OF THE 2040 RTP

During the development of the RTP's goals and objectives, both quantitative and qualitative measures of performance were identified to help inform the decision-making process. Below is a summary of the forecasted performance of the transportation system between the following scenarios developed as part of the 2040 RTP:

- Base Conditions (Year 2010)
- Financially Constrained Transportation System + Year 2040 Growth (formally known as the Cost Feasible Plan)

Several measures were not calculated due to insufficient data and/or tools; however, the measures were left herein for future consideration in performance measurement activities in the region.

MOBILITY

PROVIDE AN EFFICIENT AND RELIABLE TRANSPORTATION SYSTEM FOR REGIONAL PASSENGER AND FREIGHT OPERATIONS

TABLE 27
PRESERVATION, RESTORATION AND EXPANSION IMPACTS 2010 TO 2040

PERFORMANCE MEASURES	2010	2040	DIFFERENCE	PERCENT DIFFERENCE
OBJECTIVE	**Preserve, restore and expand the existing regional transportation system capacity to support planned increases in passenger and freight demands**			
1. Per capita regional transit capacity (total average daily boardings in the thousands)	484.8	643.9	159.1	33%
2. Per capita regional highway capacity (lane miles in thousands)	16.4	17.0	0.6	4%
3. Tonnage of freight goods moving through ports (million tons per day)	33.8	33.8	0.0	0%

TABLE 28
EXISTING CAPACITY OPTIMIZATION 2010 TO 2040

PERFORMANCE MEASURES	2010	2040	DIFFERENCE	PERCENT DIFFERENCE
OBJECTIVE	**Optimize existing system capacity through such efforts as increased highway and/or transit capacity, increased freight capacity, Transportation System Management and Operations related strategies, and Travel Demand Management Strategies**			
1. Uncongested peak VMT per lane mile (in thousands)	7.5	7.3	-0.2	-4%
2. Miles severely congested (Auto/ Truck miles in millions)	1.4/.06	1.2/.05	-0.2/-0.01	-12%/-17%
3. Trips achieving a reliable travel time (Auto/Truck travel time reliability in millions)	47.8/3.0	51.0/3.3	3.2/0.3	7%/9%
4. Percent increase in transit revenue hours (in millions)	3.2	3.2	<0.1	1%

ACCESSIBILITY

PROVIDE MULTIMODAL ACCESS TO REGIONAL PASSENGER AND FREIGHT ACTIVITY CENTERS

PERFORMANCE MEASURES	2010	2040	DIFFERENCE	PERCENT DIFFERENCE

TABLE 29
TRAVEL TIME 2010 TO 2040

OBJECTIVE	Provide competitive and reliable auto and transit travel times			
1. Average travel time spent per capita (minutes)	15.4	14.9	-0.5	-3%
2. Transit to auto travel time comparisons (difference in minutes)	182.0	181.4	-0.6	-0.3%
3. Percent trips meeting LOS Criteria	N/A	N/A	N/A	N/A
4. Percent increase in transit on-time performance	N/A	N/A	N/A	N/A

TABLE 30
MODE CHOICE 2010 TO 2040

OBJECTIVE	Increase mode choice opportunities for regional travel (includes both motorized and non-motorized modes)			
1. Annual transit trips per capita	33.0	34.0	1.0	3%
2. Commute mode share (transit trips in thousands)	628.8	643.9	15.1	2%
3. Percent of regional network serving three or more modes	N/A	N/A	N/A	N/A
4. Percent population (within 1-mile) served by the regional transit system	70.9%	70.9%	0.0	0%

ACCESSIBILITY

PROVIDE MULTIMODAL ACCESS TO REGIONAL PASSENGER AND FREIGHT ACTIVITY CENTERS

PERFORMANCE MEASURES	2010	2040	DIFFERENCE	PERCENT DIFFERENCE

TABLE 31
FREIGHT GOODS MOVEMENT 2010 TO 2040

OBJECTIVE	Provide efficient and reliable regional routes for freight goods movement to and from regional freight hubs and destinations			
1. Per capita freight miles traveled in congestion (in millions)	1.7	1.6	-0.5	0%
2. Freight miles severely congested (in thousands)	44.6	43.1	-1.5	-3%
3. Freight trips achieving a reliable travel time (in thousands)	227.4	220.6	-6.7	-3%

TABLE 32
MAJOR EMPLOYMENT CENTER ACCESS 2010 TO 2040

OBJECTIVE	Provide reliable and convenient access to the region's major employment centers and regional destinations from low-income residential areas			
1. Percent of low-income residential areas with access (within a 1-mile buffer) to the regional transit system	73.8%	73.8%	0	0

CONNECTIVITY

PROVIDE AN INTEGRATED MULTIMODAL TRANSPORTATION SYSTEM THROUGHOUT THE REGION

PERFORMANCE MEASURES	2010	2040	DIFFERENCE	PERCENT DIFFERENCE

TABLE 33
MULTIMODAL CONNECTIONS 2010 TO 2040

OBJECTIVE	Increase multimodal connections between major residential areas and major employment centers in the region (major regional origin-destination (O-D) pairs)			
1. Miles of regional corridors serving regional O-D pairs that support two or more motorized modes	N/A	N/A	N/A	N/A
2. Miles of regional corridors serving regional O-D pairs with bicycle lanes, sidewalks, multiuse paths, greenways and/or trails	820.0	851.0	31.0	4%

TABLE 34
REGIONAL SERVICE 2010 TO 2040

OBJECTIVE	Provide regional service (rail, express bus and/or rapid bus) to regional destinations and major employment centers			
1. Percent of regional activity centers and major employment centers served with regional transit service (rail, express bus and/or rapid bus)	100%	100%	0	0%

TABLE 35
REGIONAL TRANSIT CORRIDOR DENSITY 2010 TO 2040

OBJECTIVE	Provide regional service (rail, express bus and/or rapid bus) to regional destinations and major employment centers			
1. Number of total dwelling units along regional transit corridors versus region-wide total	N/A	N/A	N/A	N/A
2. Number of total units (all types) within one-mile buffer of regional transit routes versus region-wide total	N/A	N/A	N/A	N/A
3. Reduction in percentage of single occupancy vehicle (SOV) trips (in millions)	1.0	1.0	< 0.1	0.3%

ENVIRONMENT

PROTECT THE REGION'S ENVIRONMENT, PROMOTE ENERGY CONSERVATION, AND PROVIDE A RESILIENT AND ADAPTABLE TRANSPORTATION SYSTEM

PERFORMANCE MEASURES	2010	2040	DIFFERENCE	PERCENT DIFFERENCE

TABLE 36
AIR QUALITY IMPACTS 2010 TO 2040

OBJECTIVE	Improve air quality and reduce greenhouse gas emissions through efforts such as promoting alternative vehicle technologies, increasing non-single occupant vehicle (SOV) forms of travel, promoting transportation investments that support mixed-use areas, and improving travel time reliability			
1. Per capita CO2 emissions	0.7	0.7	< -0.1	-3%
2. Per capita vehicle miles traveled (VMT)	22.6	22.6	< -0.1	< -1%
3. VMT per gallons of fuel and diesel consumed (in millions)	10.3	10.3	< -0.1	-0.3%

TABLE 37
SYSTEM RESILIENCY 2010 TO 2040

OBJECTIVE	Provide and promote coordination among regional partners for transportation system resiliency and adaptability
1. Number of regionally significant environment-related projects and plans with SEFTC participation	All MPO-led projects include the participation of one or more SEFTC member(s)

TABLE 38
RIGHT-OF-WAY 2010 TO 2040

OBJECTIVE	Minimize right-of-way intrusions on the natural environment, historic and/or culturally significant areas			
1. Number of planned improvements with no impacts and/or fully mitigated impacts to natural environment, historic, and/or culturally significant areas	N/A	N/A	N/A	N/A

SAFETY AND SECURITY

PROVIDE FOR A SAFER AND MORE SECURE TRANSPORTATION SYSTEM FOR THE REGION'S RESIDENTS, BUSINESSES AND VISITORS

PERFORMANCE MEASURES	2010	2040	DIFFERENCE	PERCENT DIFFERENCE

TABLE 39
SAFETY 2010 TO 2040

OBJECTIVE	Reduce fatal and serious injury crashes on regional corridors			
1. Number of fatal crashes per 100 million VMT	200.0	195.0	-5.0	-2%
2. Number of serious injury crashes per 100 million VMT (in thousands)	15.5	15.2	-0.3	-2%

TABLE 40
EVACUATION CORRIDORS 2010 TO 2040

OBJECTIVE	Preserve and enhance the capacity of regional evacuation corridors			
1. Per capita regional evacuation corridor capacity (PM Peak v.c ratio)	0.8	0.7	< -0.1	-5%

ECONOMY

PROVIDE TRANSPORTATION INVESTMENTS TO SUPPORT AN EXPANDING REGIONAL ECONOMY

PERFORMANCE MEASURES	2010	2040	DIFFERENCE	PERCENT DIFFERENCE

TABLE 41
DEVELOPING MAJOR EMPLOYMENT CENTERS 2010 TO 2040

OBJECTIVE	Provide regional transportation facilities and services to existing and developing major employment centers			
1. Percent of major employment center transportation needs met by the Cost-Feasible LRTP	N/A	N/A	N/A	N/A

TABLE 42
TRANSPORTATION COSTS 2010 TO 2040

OBJECTIVE	Decrease household income spent on transportation costs			
1. Per capita percent of household income spent on transportation	19%	17%	-2%	-2%
2. Annual per capita commute length (in hours)	47.0	45.0	-2.0	-3%

POST ADOPTION PERFORMANCE MONITORING

Post adoption of the 2040 RTP, the Southeast Florida region will collectively work together to track the performance of the transportation system in relation to the implementation of investments. Currently, the SEFTC has an annual performance monitoring process that can be used as a starting point for assessing progress. This assessment can be used as one tool in helping the region identify if it is on track to achieving the agreed upon goals and objectives summarized within this plan. At the time of this adoption, the region continues to work together to update their previously adopted monitoring process to reflect the 2040 RTP. However, as future assessments occur, the RTTAC and SEFTC will collaboratively decide on the best approaches for how to move forward in future investment decisions.

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