



MOBILITY OPTIONS
2040 Miami-Dade
Transportation Plan
EYES ON THE FUTURE

MIAMI-DADE 2040

Long Range Transportation Plan

Executive Summary

October 23, 2014



MIAMI-DADE METROPOLITAN
PLANNING ORGANIZATION



Photo by Asad Gilani



MOBILITY OPTIONS

2040 Miami-Dade Transportation Plan

EYES ON THE FUTURE

EXECUTIVE SUMMARY

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Metropolitan Planning Organization for the Miami Urbanized Area Governing Board*

On March 23, 1977, the Miami-Dade Metropolitan Planning Organization (MPO) was established to guide the transportation planning process in the Miami Urbanized Area. The United States Department of Transportation (USDOT) requires the MPO Governing Board to ensure a continuous examination of transportation plans and programs.

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01 Introduction

Envisioning the Future

What Is The MPO and The LRTP?

A critical aspect of Miami-Dade County's future success as an economic generator and global transportation hub, is the mobility of its residents, visitors, along with freight and goods movement. The Metropolitan Planning Organization (MPO) for the Miami-Urbanized Area guides the transportation planning process for Miami-Dade County including the development of the Long Range Transportation Plan (LRTP). The LRTP Update to the Year 2040 (2040 Plan) is a comprehensive transportation infrastructure plan that includes a long-term investment framework.

The 2040 Plan, was initiated in December 2012, includes highway, transit, freight, and non-motorized (bicycle and pedestrian) components. It is truly a multimodal plan that covers a broad range of issues ranging from the environment, to economic development, mobility, safety, security, and quality of life. LRTP's are updated every 5 years with a minimum 20 year horizon based on state and federal requirements.

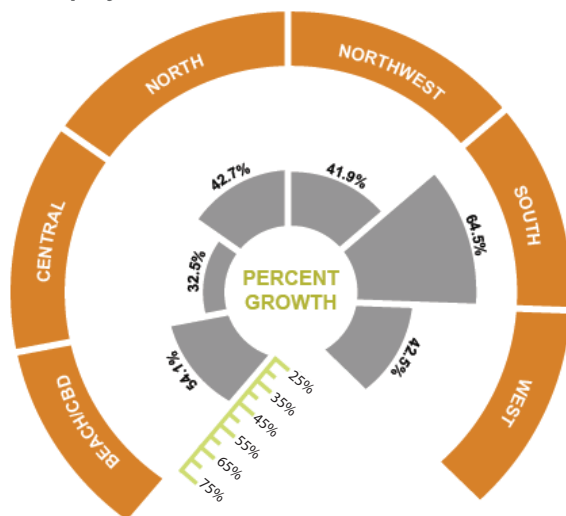
In light of Miami-Dade's bright and prosperous future as a global hub, the 2040 Plan is focused on Providing Mobility Options, with Eyes on the Future, as depicted by the plan logo. The Plan is also guided by a comprehensive vision to

“Provide mobility options for Miami-Dade County residents and visitors and promote economic competitiveness by investing in the County's transportation infrastructure while protecting the environment and maximizing the efficiency of the existing transportation system.”

Population And Employment Growth

Miami-Dade County is, the most populous county in Florida, with almost 2.5 million residents in 2010 and is expected to grow by over 30% by 2040 to over 3.3 million. The residents of Miami-Dade County, along with visitors, equates to a substantial demand on the transportation system. Projected growth will worsen already congested conditions on the County's roadways without proportional improvements to the transportation system. Employment in Miami-Dade County also puts demand on the system. Total employment in the County in 2010 was just over 1.4 million and is expected to grow to more than 2 million by 2040.

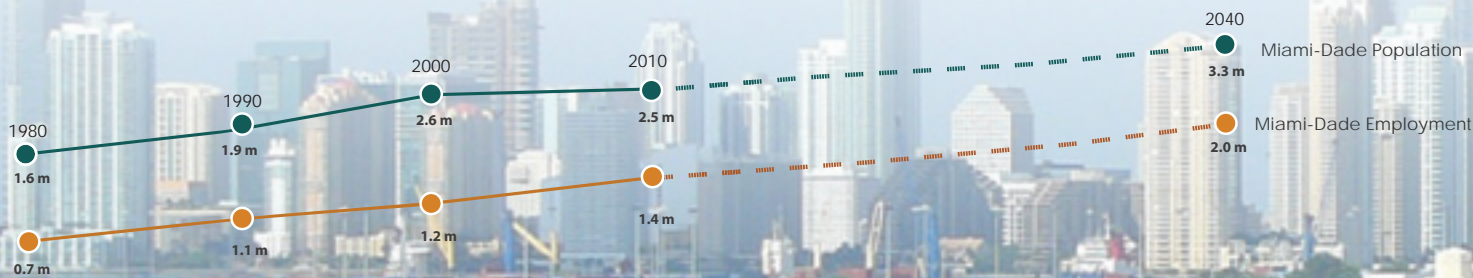
Employment Growth 2010-2040



Population Growth 2010-2040



Historic and Projected Population and Employment of Miami-Dade County 1980-2040

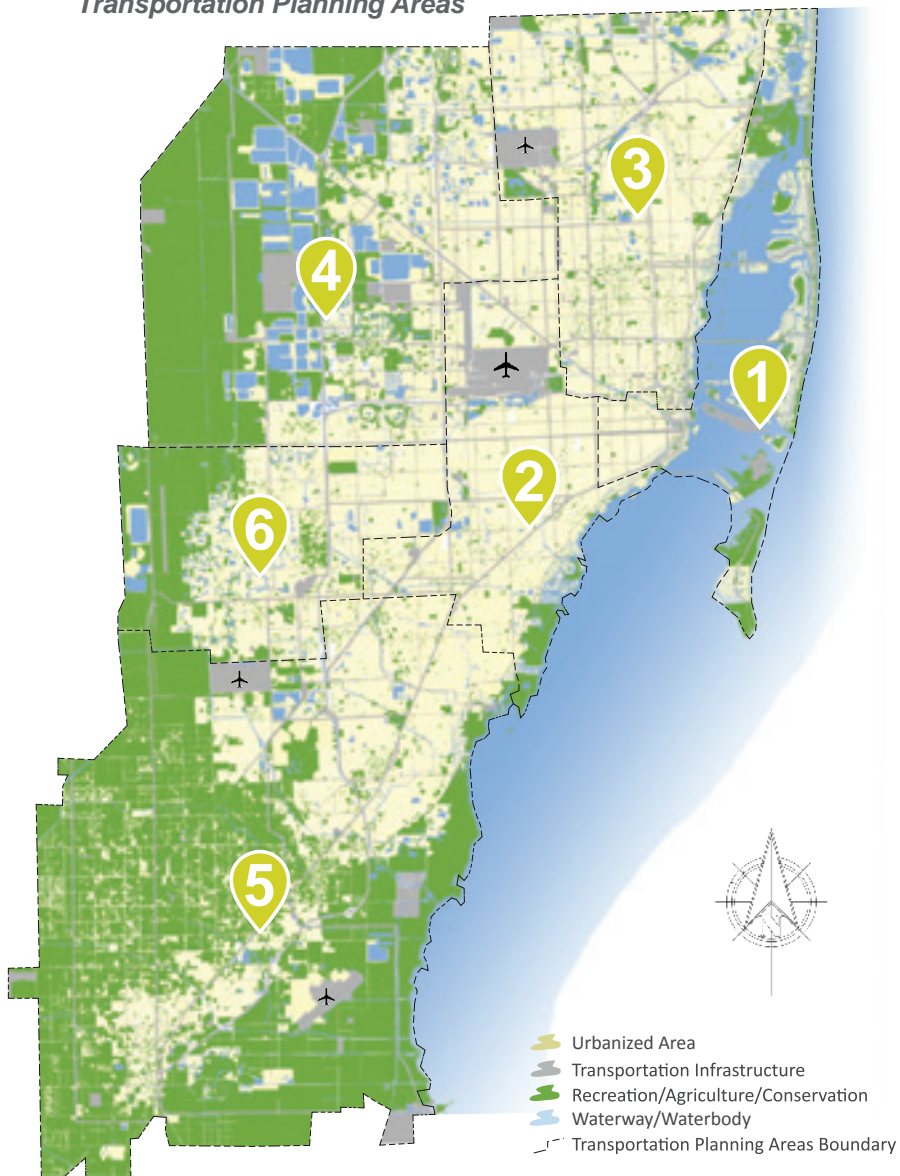




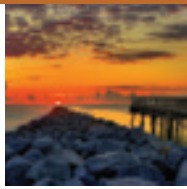
Mobility Options in Miami-Dade County



Transportation Planning Areas



<p>BEACH/CBD</p> <p>543,800 Population 37 SQM</p> <p>390,500 Employment</p>	<p>Bay Harbour Downtown Miami Little Havana Miami Beach Port of Miami Sunny Isles Beach</p> <p>1</p>	<p>NORTHWEST</p> <p>478,900 Population 150 SQM</p> <p>428,000 Employment</p>	<p>Doral Hialeah Hialeah Gardens Miami Lakes Sweetwater Virginia Gardens</p> <p>4</p>
<p>CENTRAL</p> <p>480,400 Population 68 SQM</p> <p>407,600 Employment</p>	<p>Coconut Grove Coral Gables Key Biscayne Miami International Miami Springs South Miami University of Miami</p> <p>2</p>	<p>SOUTH</p> <p>654,900 Population 226 SQM</p> <p>290,300 Employment</p>	<p>Cutler Bay Florida City Homestead Kendall Palmetto Bay Zoo Miami</p> <p>5</p>
<p>NORTH</p> <p>712,000 Population 77 SQM</p> <p>361,700 Employment</p>	<p>Civic Center Little Haiti Miami Gardens Miami Shores North Miami Opa-Locka</p> <p>3</p>	<p>WEST</p> <p>435,300 Population 68 SQM</p> <p>172,900 Employment</p> <p>Square Miles (SQM)</p>	<p>Florida International Kendall Lakes Kendall-Tamiami Executive Airport Tamiami The Hammocks</p> <p>6</p>



02 Goals and Objectives

Planning for a Shared Future

This LRTP was guided by eight goals that represent specific elements of how the transportation system should evolve or, be preserved, over the next 20 years. The goals characterize the desires and needs of Miami-Dade County while meeting applicable federal, state, and local regulations. The formulation of the LRTP goals was the result of extensive stakeholder involvement by the MPO Governing Board, county and municipal agency directors of the Transportation Planning Council, planning agency staff of the LRTP Steering Committee, and the general public. The goals were weighed with input from the public and Steering Committee to identify the relative importance of each goal, and were approved by the MPO Governing Board.

Goals Snapshot

Goal Weight

GOAL #

TITLE

Goal Objectives Sample
Goal Objectives Sample
Goal Objectives Sample

GOAL KEY

25

GOAL 1

IMPROVE SYSTEM & TRAVEL

- Reduce Congestion
- Enhance mobility for people & freight
- Promote system reliability & fill transit services gaps

8

GOAL 2

INCREASE SAFETY

- Reduce roadway & multi-modal crashes
- Improve safety on facilities & in operations
- Provide safe & easy pedestrian & non-motorized travel

3

GOAL 3

INCREASE SECURITY

- Enhance the capacity of evacuation corridors
- Ensure options are available during emergency evacuations
- Ensure security of ports, airports, & multi-modal centers

12

GOAL 4

SUPPORT ECONOMIC VITALITY

- Increase access to employment sites
- Enhance the efficient movement of freight & goods
- Support economic development

14

GOAL 5

PROTECT & PRESERVE ENVIRONMENT & QUALITY OF LIFE

- Support livable rural & urban communities
- Minimize impacts to established neighborhoods & historic areas
- Minimize & mitigate impacts of transportation on air & water quality

14

GOAL 6

ENHANCE CONNECTIVITY

- Improve connectivity to intermodal facilities
- Provide options consistent with the plans of local government
- Improve movement of goods by intermodal access & connectivity

12

GOAL 7

OPTIMIZE SOUND INVESTMENT STRATEGIES

- Maximize state, federal, & private funding sources
- Provide options consistent with the plans of local governments
- Establish strong linkages with Southeast Florida governments to plan infrastructure

12

GOAL 8

PRESERVE EXISTING SYSTEM

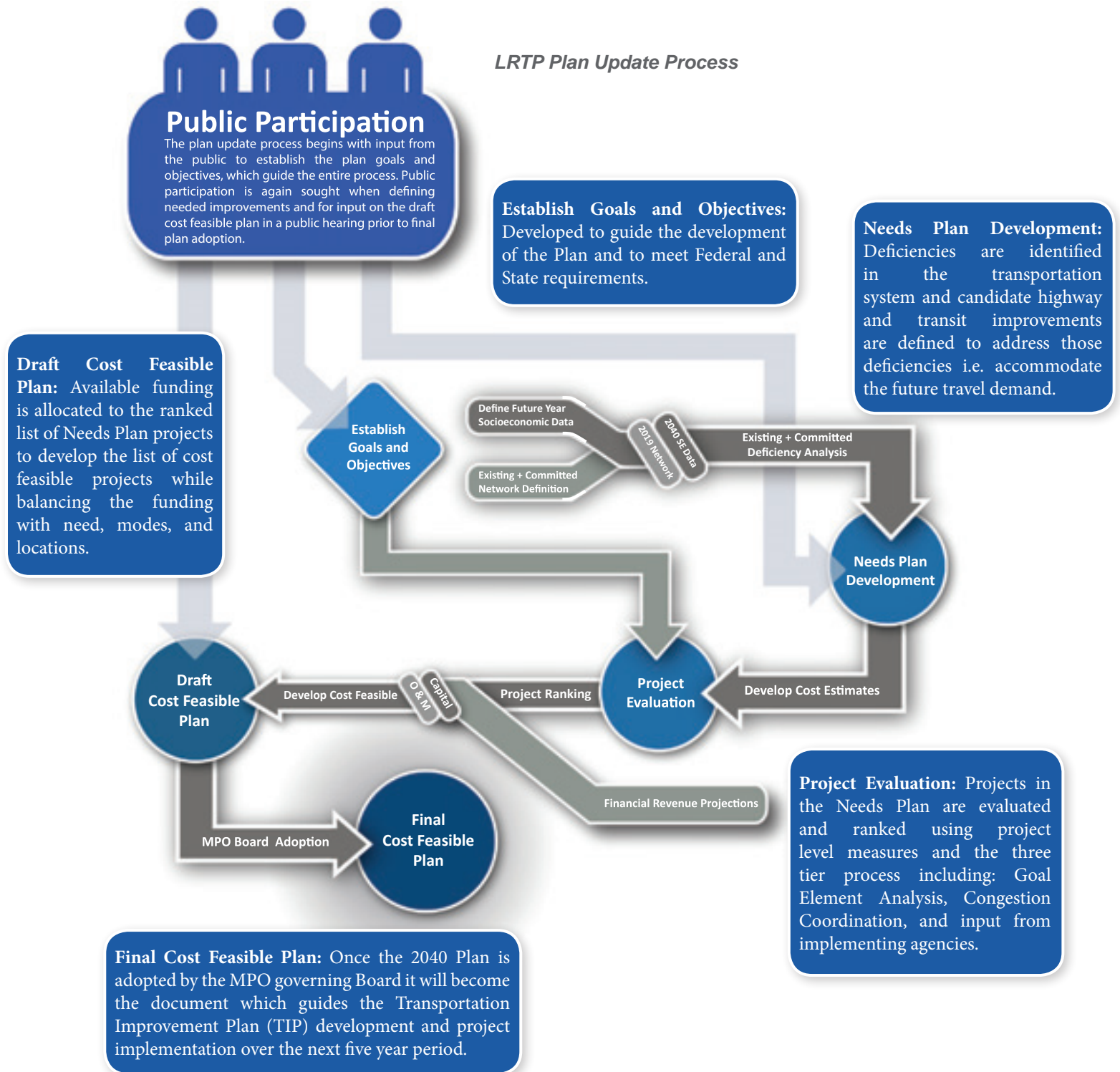
- Repair & maintain existing infrastructure
- Use the best technologies & innovations to improve the system
- Reserve corridors for future facilities & services



03 Plan Update Process

Connecting the Dots

The 2040 Plan update was a technical, collaborative process that involved interested parties throughout the County, including transportation providers and the general population. There were five key stages that ultimately led to the adoption of the 2040 Plan, a financially constrained plan of transportation improvements, by the Miami-Dade MPO Governing Board. The culmination of this process was a Plan that represented the unified vision of citizens, business leaders, elected officials, and transportation agencies, all of whom have an important stake in the future of the County's transportation system. The 2040 Plan was developed to ensure consistency with all applicable state and federal requirements guiding the long range planning process.





04 Public Involvement

Staying in Touch

L RTP Interactive Website

Public participation is integral to the development of the long range transportation plan and is continuous throughout the process. The MPO must provide “citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan,” as mandated by federal requirements 23 USC 134(i)(6). The Miami-Dade MPO is committed to provide opportunities for public involvement in the transportation planning process. The Miami-Dade MPO offered open and effective public involvement activities throughout the development of the 2040 Plan through workshops and interactive programs on the LRTP website.



VISUALIZATION TECHNIQUES



“Play” Money

Interactive exercise at Kick-Off Meetings to distribute money among the goals to prioritize and rank goals by an associated monetary value.



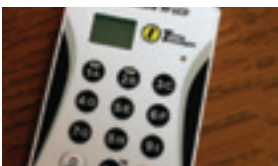
Maps and Ribbons

Interactive exercise using different color ribbons to represent suggested highway and transit improvements.



Maps and Blocks

Legos were displayed across 2010 and 2040 Miami-Dade maps used to represent existing and projected population and employment.



Polling Devices

Polling devices showing instantaneous results used at public meetings and Steering Committee Meetings to display input on various aspects.



Cost Feasible Plan

Interactive spreadsheet used at a Steering Committee Meeting to develop the Cost Feasible Plan.



Map, Charts, Graphs

Various graphic formats used throughout the process to present information.

- Communication Tools
- Community Flyers & Brochures
- Videos
- Interactive Website
- Public Meetings

Interactive Website

The official 2040 Plan, long range transportation plan website, www.miamidade2040lrtp.com, provides electronic information, public meeting materials, documentation, and videos about the 2040 Plan update. During the development of the Plan, the website also provided users with opportunities to review the draft Needs Plan and to participate in the Miami-Dade 2040 LRTP Survey.

Reaching Millennials

There was a concerted effort to reach Millennials at three college campuses: Miami-Dade College North Campus, Miami-Dade College Wolfson Campus, and Florida International University South Campus.



05 Financial

Putting Our Infrastructure to Work

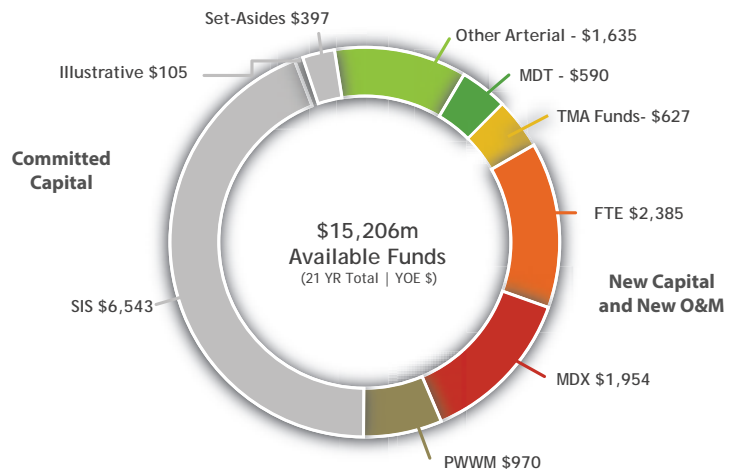
Putting our Infrastructure to work requires financial resources to build new transportation facilities and to operate and maintain both the existing and future facilities. This LRTP, unlike the 2035 LRTP, includes funding for new transit capital improvements (primarily buses) and operating funds for new service.

A detailed financial analysis was performed to estimate the available revenues projected to be available to Miami-Dade County through 2040. The forecasted revenues include federal, state, and local sources, and are based on statutes and policies. Opportunities for additional funding sources, are identified in the 2040 Plan, will continue to be explored. The challenge of providing multi-modal travel options to all users will require non-traditional implementation strategies. One approach, which has not yet been implemented, is to apply toll revenue as a funding mechanism for transit operations. This and other non-traditional approaches will necessitate evolving relationships among implementation agencies.

There are \$15,206 million available for new capital and operating and maintenance (O&M) costs for proposed new facilities for the 21 year period from 2020 through 2040.

Cost Estimates

Project costs were determined for all projects defined in the Needs Plan to assess the financial feasibility in the process of developing the 2040 Plan. For capital improvements, project costs were determined based on available data from existing reports, work programs, and/or the transportation agencies where available. If exiting cost estimates were not available, costs were estimated using the FDOT Cost Calculator and unit costs, similar types of projects, and input from the agencies, where available. The cost to operate and maintain transportation system improvements are often the most expensive part of a project and therefore, must be estimated for all proposed future facilities.



Available Revenue for New Capital and New O&M (millions YOY \$)

	Priority I 2020	Priority II 2021-2025	Priority III 2026-2030	Priority IV 2031-2040	Total 2020-2040
Revenues for New Capital and New O&M					
Other Arterial Construction ROW	\$86	\$386	\$364	\$798	\$1,635
Transit	\$0	\$71	\$152	\$367	\$590
TMA Funds	\$30	\$149	\$149	\$299	\$627
FTE	\$0	\$42	\$413	\$1,930	\$2,358
MDX	\$44	\$240	\$401	\$1,269	\$1,954
PWWM	\$59	\$282	\$247	\$382	\$970
Subtotal for New Capital and New O&M	\$219	\$1,170	\$1,727	\$5,045	\$8,161
SIS Highway Construction & ROW	\$205	\$374	\$2,372	\$3,592	\$6,543
Transportation Alternatives (TALU)	\$1	\$3	\$3	\$7	\$13
Districtwide Transportation Alternatives (TALT)	\$3	\$16	\$16	\$32	\$68
TRIP	\$0	\$6	\$6	\$12	\$24
Set-Asides (Bicycles/Pedestrian, CMP, Freight)	\$20	\$100	\$98	\$179	\$397
Total Available Funds	\$448	\$1,669	\$4,222	\$8,867	\$15,206

Note: Totals may not add due to rounding.



06 Multimodal Solutions

Finding a Balance

The Miami-Dade transportation network serves critical interstate, regional, and local mobility needs. As such, strategic investments in a wide array of highway and bridge infrastructure along with public transportation projects are required. These critical improvements will enhance travel within Miami-Dade County and improve accessibility beyond the county. A cost feasible set of prioritized transportation improvements is essential to satisfy growing travel demand and to provide reliable transportation for Miami-Dade businesses, residents and visitors.

The Plan was developed to guide transportation investments in Miami-Dade County to 2040. Available funding was allocated to the ranked list of Needs Plan projects to develop the prioritized list of cost feasible projects while balancing funding with needs, modes, and locations. Projects were grouped into incremental band years of Priorities based on available funding. The Plan satisfies this need with a prioritized list of cost feasible projects grouped into four time periods based on available funding as identified below:

- **Priority I: TIP (2015-2019) and 2020**
- **Priority II: 2021-2025**
- **Priority III: 2026-2030**
- **Priority IV: 2031-2040**

Highways, transit, bicycle, and pedestrian facilities are integrated into MPO Transportation Plans and function as an intermodal transportation system. The Miami-Dade 2014 Bicycle/Pedestrian Plan, Miami-Dade County 2014 Congestion Management Process (CMP) Update, and the 2014 Miami-Dade Freight Plan Update were coordinated with the development of the Plan.

Note: Project IDs listed on the Priority I–IV Project Maps on the next 4 pages correspond to the associated project priority listings in the Plan document and Cost Feasible Project Listings on the LRTP website.

Roadway



The highway (and roadway) system is the backbone of the transportation system. There are many types of roadways from local roads to major arterial highways owned and operated by different agencies: Florida

Department of Transportation, Florida Turnpike Enterprise, Miami-Dade Expressway Authority, Department of Public Works and Waste Management (county roads), and various municipalities. There are also many potential types of road improvements depending on the need and include: new roads, managed lanes, roadway widening, intersection improvements, and operational improvements.

Park-and-Ride Facilities and Intermodal/ Transit Terminals



Park-and-Ride Facilities and Intermodal Terminals are multimodal and intermodal with uses for both transit access and for carpooling. To help encourage transit use, especially for riders who

have choices, access must be convenient and available.

Transit

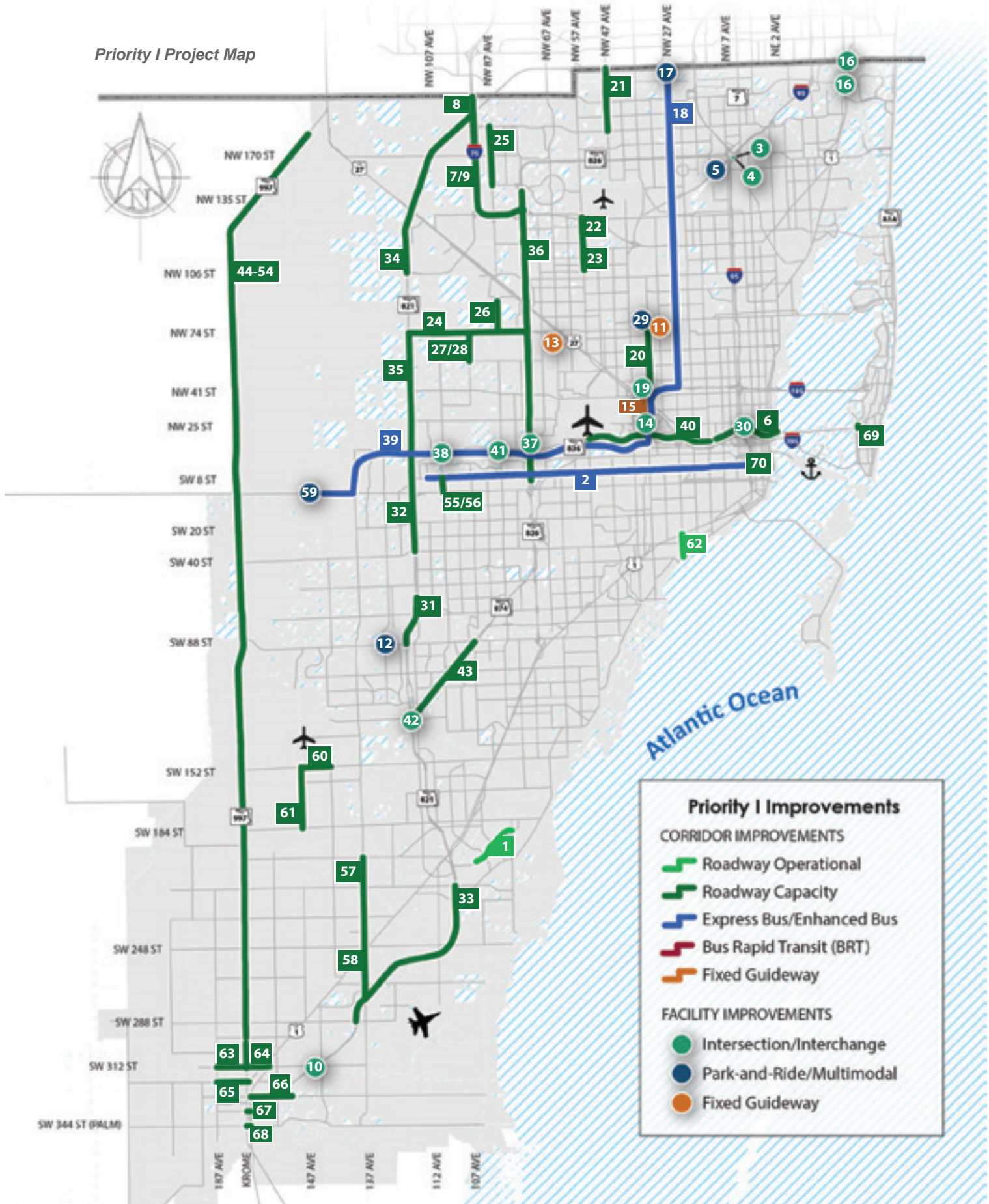


Miami-Dade County residents and visitors have several transit options including: bus, enhanced bus, express bus, MetroMover, MetroRail, and Tri-Rail. One notable change from the 2035 LRTP is that there are available

bonding capacities for transit to expand the transit system within Miami-Dade County including: Enhanced Bus Service (EBS) and Bus Rapid Transit (BRT).



Priority I Project Map



Priority I Improvements

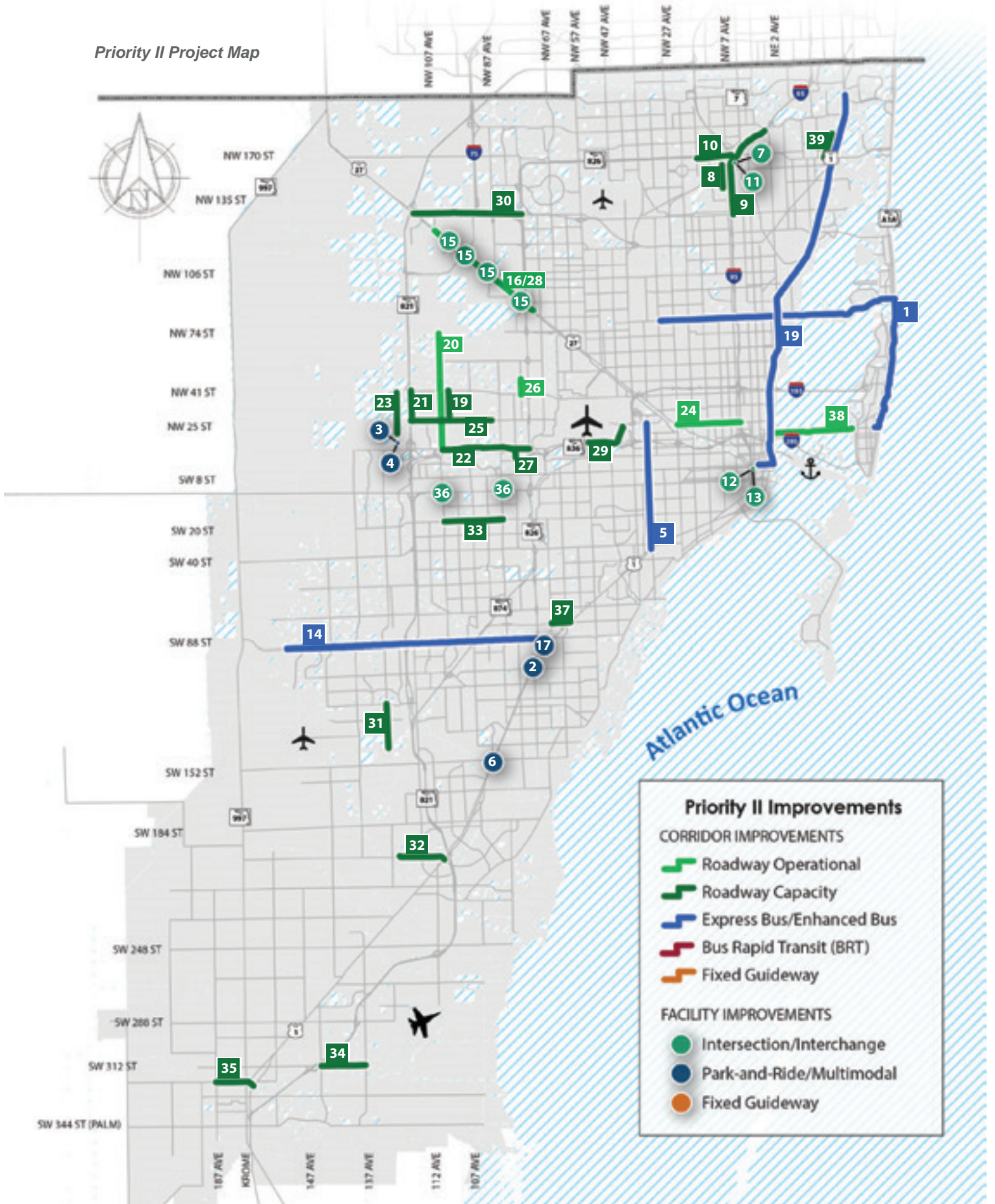
CORRIDOR IMPROVEMENTS

- Roadway Operational
- Roadway Capacity
- Express Bus/Enhanced Bus
- Bus Rapid Transit (BRT)
- Fixed Guideway

FACILITY IMPROVEMENTS

- Intersection/Interchange
- Park-and-Ride/Multimodal
- Fixed Guideway

Priority II Project Map



Priority II Improvements

CORRIDOR IMPROVEMENTS

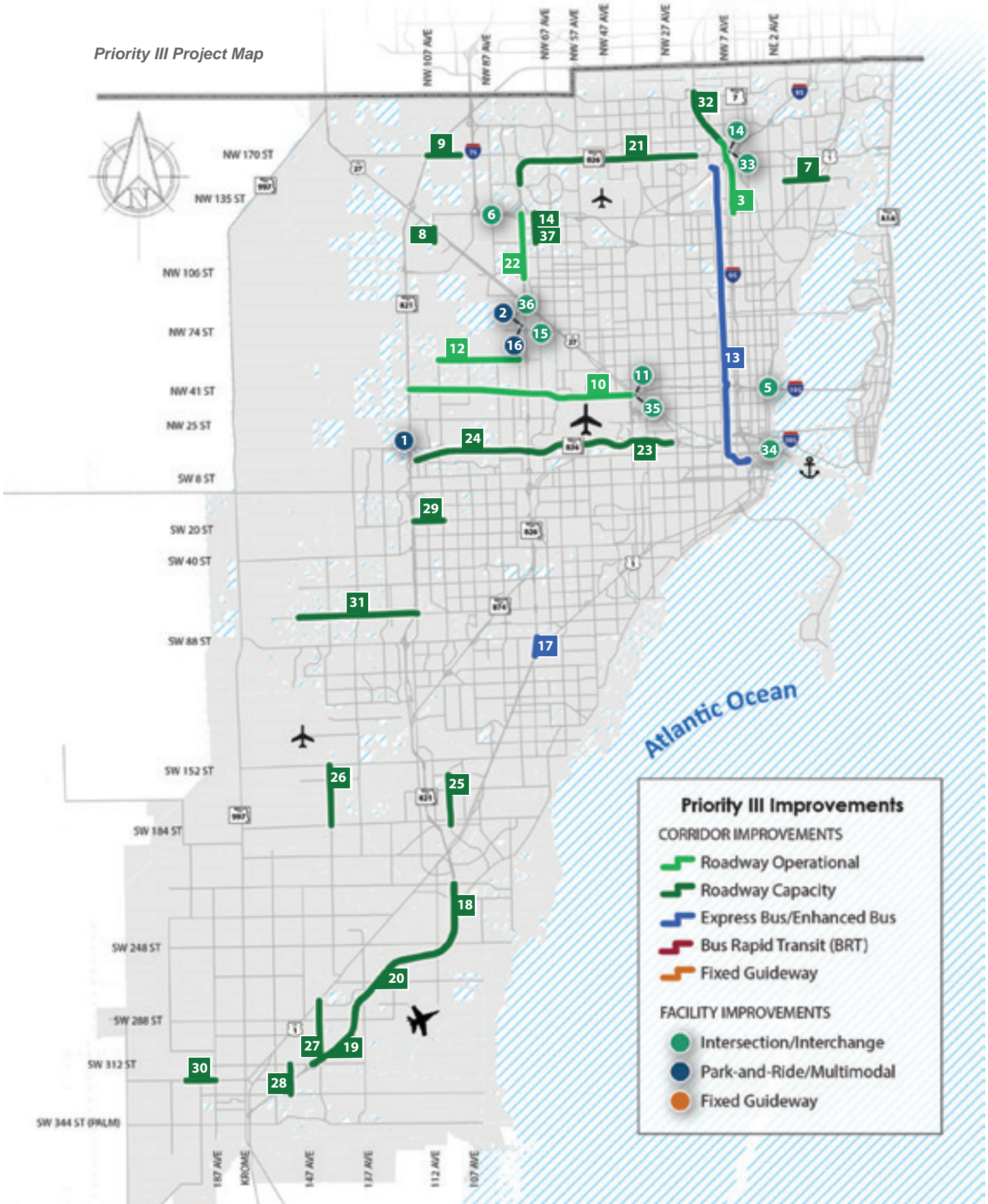
- Roadway Operational
- Roadway Capacity
- Express Bus/Enhanced Bus
- Bus Rapid Transit (BRT)
- Fixed Guideway

FACILITY IMPROVEMENTS

- Intersection/Interchange
- Park-and-Ride/Multimodal
- Fixed Guideway

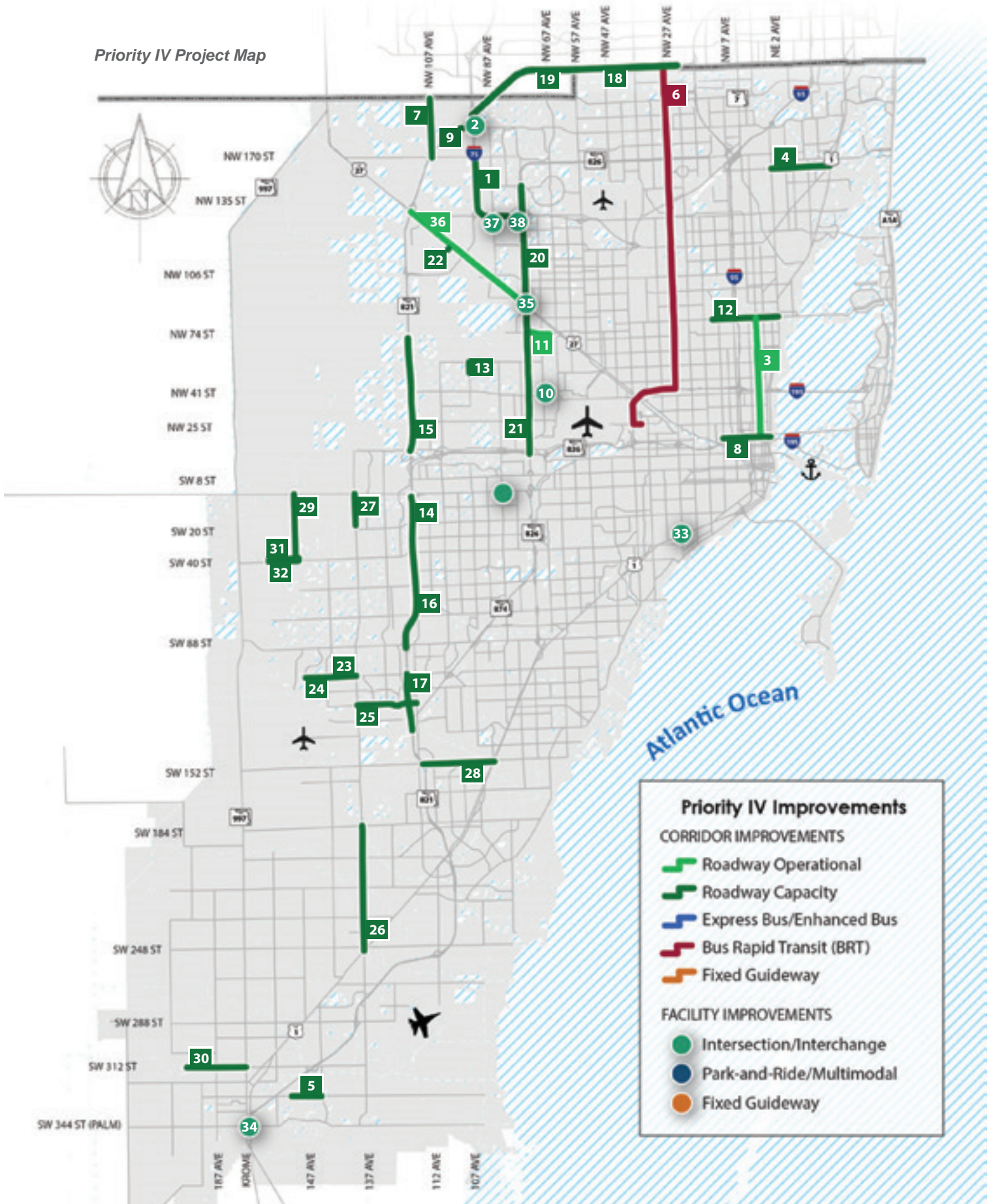


Priority III Project Map





Priority IV Project Map





07 Environment & Sustainability

Sustaining Our Environment & Communities

The goal of sustainability is to meet basic social needs, protect human health and the environment, and promote a viable and competitive economy in ways that make efficient use of resources. Sustainability entails meeting the needs of the current generation without compromising the ability of future generations to meet their own needs. The three pillars of Sustainability; environment, social, and economic, provide an approach to a balanced decision making process for transportation projects.

Various components of Miami-Dade's community-wide sustainability plan, known as GreenPrint, were integrated with the development of the 2040 Plan. GreenPrint is a "big picture," collaborative, long-term approach to achieving goals that will ensure a better quality of life for the people who live in and visit Miami-Dade County. Many of the Goals and Objectives developed for the 2040 Plan respond to GreenPrint initiatives.



GreenPrint Aspirational Goals



Strong Leadership, Connections & Commitment

- Create the next generation of green leaders



Water & Energy Efficiency

- Use less water and energy



Our Environment

- Maintain exceptional quality of air, drinking water, and waters used for recreation
- Protect and enhance Biscayne Bay, the Everglades, and vital ecosystems
- Reinvent our solid waste system



Responsible Land Use & Smart Transportation

- Use our land wisely, creating and connecting strong sustainable neighborhoods
- Provide more transportation options, reducing the time we spend in our cars



Vibrant Economy

- Create green jobs
- Build on our international reputation to become a green enterprise destination



Healthy Communities

- Raise awareness that sustainable living is healthy
- Plant more Florida-friendly and native trees and landscapes



Climate Change Action Plan

- Understand and respond to current and future climate change impacts
- Reduce greenhouse gas emissions



08 Regional Coordination

Expanding Our Horizons

Miami-Dade County is one of three counties in the Miami Urbanized Area; the other two are Broward and Palm Beach Counties. The Southeast Florida region is the fourth most populous urbanized area in the nation. Collectively, the region has a population over 5.5 Million people with an expected 27 percent growth over the next 25 years.

The Miami-Dade, Broward, and Palm Beach MPO's have long maintained cooperative working relationships with each other, and their alliance was solidified when the 2000 Census defined the tri-county area as the Miami Urbanized Area. Then in 2005, recognizing the need for increased regional transportation planning and coordination the three MPO's created the Southeast Florida Transportation Council (SEFTC). This was accomplished through an Interlocal Agreement under Florida Statutes Chapter 339.175(j)(2), paving the way for the first meeting in January 2006.

Since its inception, SEFTC has adopted:

- The 2035 Regional Transportation Plan encompassing:
 - Regional goals and objectives
 - Regional network definitions and maps;
- A prioritization process for regionally funded projects;
- A regional public involvement process; and
- A regional performance monitoring system to assess the effectiveness of regional coordination.

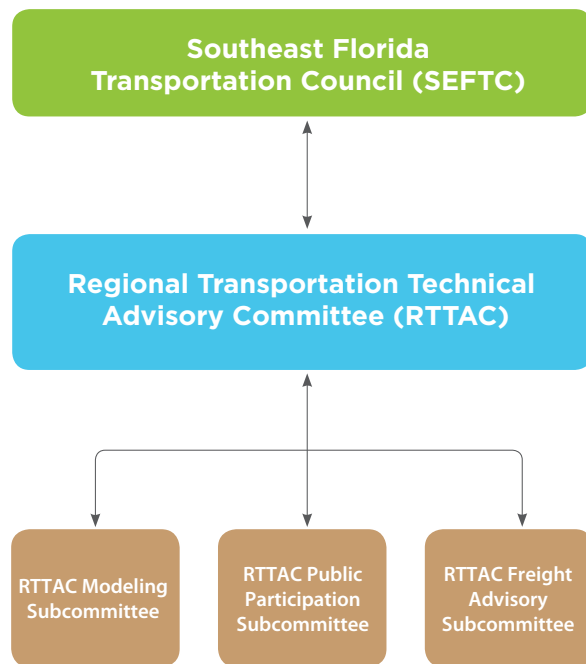
Southeast Florida 2040 Plan

The SEFTC is now completing the 2040 Regional Transportation Plan (RTP) that will identify the most significant transportation investments needed to meet growing and changing travel demands throughout the tri-county southeast Florida region. Important elements of the RTP include:

- Estimates of growth over the next 25 years
- Goals for accommodating this growth
- Regionally significant investment
- Funding to implement the plan
- A complete regional picture

The Southeast Florida 2040 Plan is scheduled to be adopted in spring/summer 2015. To stay up-to-date, please follow the progress at www.SEFTC.org.

**“One Vision
Investing in Many
Components”**



Southeast Florida's Regional Transportation System





09 Plan Implementation

Wheels in Motion

Miami-Dade is a global destination attracting both people and goods, with anticipation that this attractiveness will significantly strengthen over the next 20 years. The recommendations of the 2040 Plan are designed to meet the future transportation needs of this desirable and growing metropolitan area. The mobility provided by these improvements will maintain Miami-Dade's economic competitiveness, livability, and attractiveness and reinforces its status as a major center of global trade and finance.

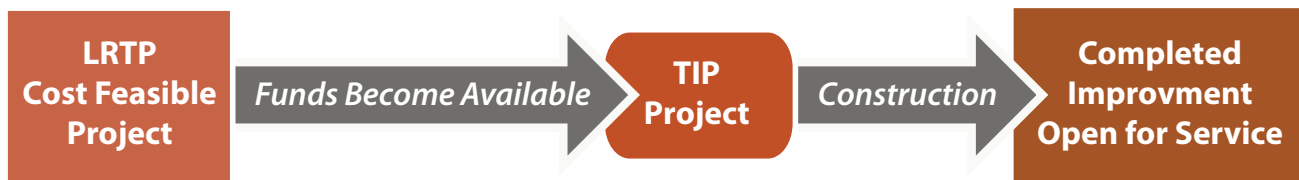
The 20+ year horizon of the Plan is the basis for development of the short-term or five-year plan known as the Transportation Improvement Program (TIP). The TIP is a staged multi-year program that prioritizes transportation improvement projects with federal, state and local funding. The TIP is the capital improvement element of the 2040 Plan and puts it into action.

Monitoring 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. Performance monitoring provides essential feedback on the effectiveness and efficiency of plan investments.

Moving Ahead for Progress in the 21st Century (MAP-21) features a federal emphasis on performance measurement. Under MAP-21, the U.S. DOT will establish performance measures, while state DOT's will develop performance targets in consultation with MPO's and others.

Progression of Project from LRTP Cost Feasible Plan to Completion via the TIP



Illustrative Projects

To prepare for the future, we have to begin implementing the future of transportation NOW. The Plan highlights opportunities for positive new approaches to agency partnerships, and for agencies to work together in ways that are non-traditional. Creative agency partnerships have the potential to advance the deployment of critical freight and transit infrastructure in ways that break through the barriers established by traditional working relationships. Innovative partnerships with the private sector can further expand the framework of our traditional business plans, and help speed up project delivery timeframes, and reduce publicly subsidized costs.



Moving Ahead for Progress in the 21st Century (MAP-21) National Performance Goals



Safety

To achieve a significant reduction in traffic fatalities and serious injuries on all public roads



Infrastructure Condition

To maintain the highway infrastructure asset system in a state of good repair



Congestion Reduction

To achieve a significant reduction in congestion on the National Highway System



System Reliability

To improve the efficiency of the surface transportation system



Freight Movement and Economic Vitality

To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development



Environmental Sustainability

To enhance the performance of the transportation system while protecting and enhancing the natural environment



Reduced Project Delivery Delays

To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices



South Beach view to Central and Middle Beach



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PLANNING ORGANIZATION

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Learn more by visiting: www.MiamiDade2040LRTP.com



Photo by Asad Gilani