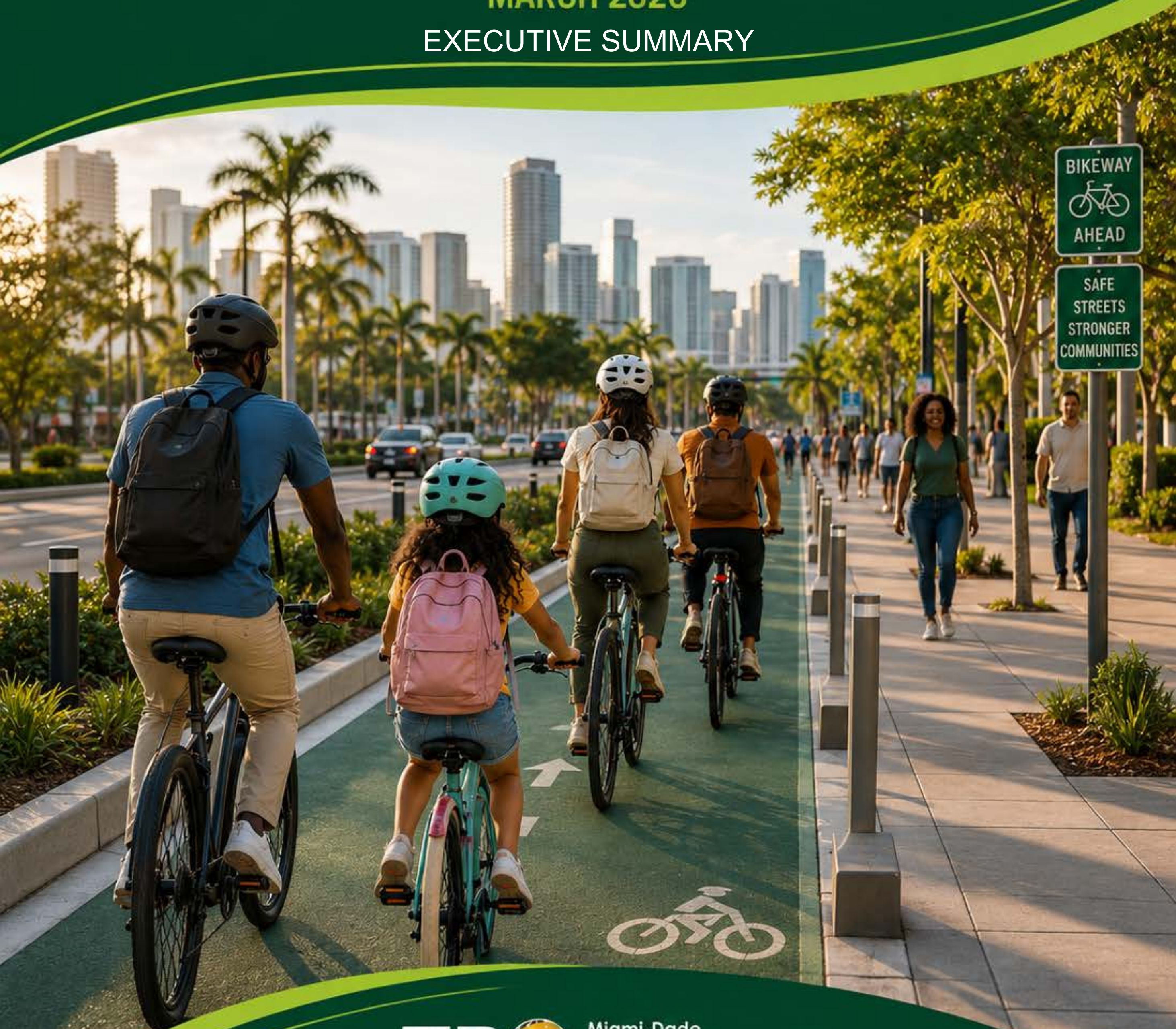


STEP PROGRAM

IMPLEMENTATION PLAN TO ADVANCE BIKEWAYS IN MIAMI-DADE COUNTY

MARCH 2026

EXECUTIVE SUMMARY



Miami-Dade
Transportation
Planning Organization

The Miami-Dade Transportation Planning Organization (TPO)

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STEP Program Implementation Plan to Advance Bikeways in Miami-Dade County

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EXECUTIVE SUMMARY

The "*STEP Program Implementation Plan to Advance Bikeways in Miami-Dade County*" presents a comprehensive study and implementation plan aimed at improving bicycle access around middle schools and advancing bikeway infrastructure across Miami-Dade County. The study focused on developing a countywide "Bikeways to Schools, Transit, and Parks" Plan, emphasizing safe and connected bicycle networks for school-aged children and the broader community. It aligns with broader county and state transportation safety and sustainability goals, including Vision Zero and the Safe Streets and Roads for All (SS4A) initiative.

PROJECT SCOPE

The study assessed bicycle access needs for Miami-Dade County Public Schools (MDCPS) middle schools, recognizing middle school students as key users of bicycle transportation due to their age and level of independence. It includes 105 public middle and K-8 schools, excluding private and charter schools. The project area encompassed the entire Miami-Dade County, with a focus on connectivity to transit stations, parks, and trails as part of the SMART (Strategic Miami Area Rapid Transit) corridors.

LITERATURE REVIEW AND STAKEHOLDER COORDINATION

A detailed literature review informed the study, examining existing local, state, and national plans, case studies, and challenges related to bicycle and pedestrian infrastructure. Key documents reviewed included the Miami-Dade TPO 2050 Bicycle Pedestrian Master Plan, FDOT manuals, Miami-Dade Vision Zero Action Plan, and Safe Routes to Schools/Parks initiatives. Stakeholder coordination involved the project team meeting at key project milestones with a Project Working Group that comprised multiple agencies including Florida Department of Transportation (FDOT), Miami-Dade County Department of Transportation and Public Works (DTPW), the Miami-Dade Transportation Planning Organization (TPO), MDCPS, and city governments. Community needs and safety were prioritized through feedback received during Project Working Group meetings. The study leveraged insights gleaned from a Miami delegation visit to the Netherlands, emphasizing Dutch best practices in cycling infrastructure, including high-quality routes, school bicycle storage, and integration with public transportation. U.S. examples like Palo Alto and Denver Safe Routes to School plans provided frameworks emphasizing education, equity, and infrastructure improvements.

TIERED SCREENING AND PRIORITIZATION OF SCHOOLS

The study employed a three-tiered screening process to prioritize schools for bikeway improvements:

- **Tier I Screening:** Evaluated 105 middle schools, focusing on those within a 2-mile radius of transit stations. This screening used criteria including school utilization, safety improvement potential, transit connectivity, bikeway connectivity, and recreational connectivity. Forty-two schools were prioritized for further analysis based on weighted scores reflecting these criteria.

- **Tier II Screening:** Further refined the 42 schools using criteria such as infrastructure gaps, school-aged child crash data, Vision Zero alignment, and first- and last-mile transit access. Sixteen schools were selected for the final tier, considering existing Safe Routes to School programs and regional, countywide coverage to ensure that a cross-section of contexts and needs was reflected in the schools evaluated in this pilot study.
- **Tier III Screening:** The final sixteen schools (see **Exhibit ES-1**) were assessed based on socioeconomic and demographic factors including population density, transit connectivity, poverty levels, vehicle access, youth population, and median income. Weighted scoring guided the prioritization to identify schools with the greatest need and potential for improvement.

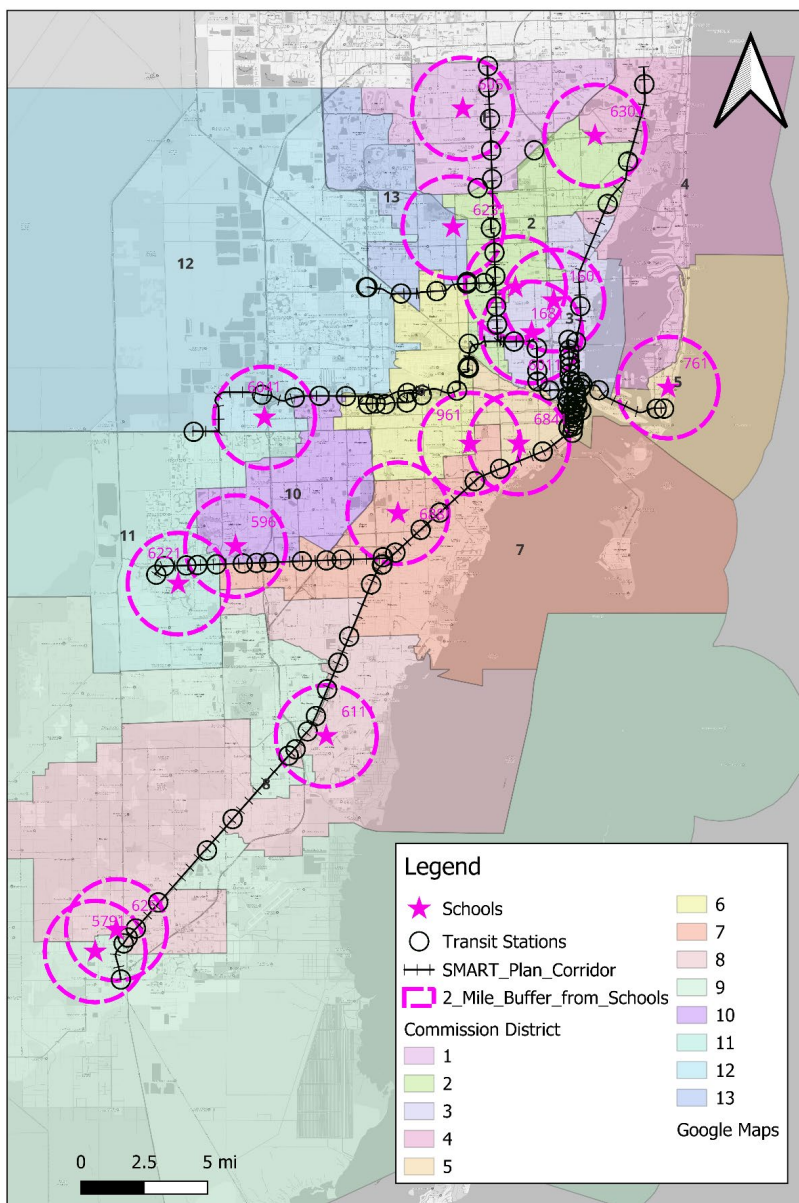


Exhibit ES-1 Tier III Selected Schools

CONNECTIVITY AND ACCESSIBILITY ASSESSMENT

A detailed connectivity assessment identified gaps in bicycle and pedestrian infrastructure around the sixteen prioritized schools. The study used GIS data and street-level reviews to identify segments needing improvements, prioritizing roads with speed limits under 30 mph, connections to transit, and access to nearby parks.

Given the study's objective to target school-aged children, only protected bicycle lanes and off-road bicycle facilities were considered suitable improvements to address gaps in the bicycle infrastructure, as these offer the greatest comfort and safety for younger, less experienced riders. Three typical bikeway facility prototypes were developed to serve as a visioning tool to guide improvements:

- **T1: Protected Bicycle Lanes** — physically separated on-road lanes with raised barriers (see **Exhibit ES-2** below).



Figure ES-2: Protected Bicycle Lanes

- **T2: Sidewalk-Level Bicycle Lanes** — elevated lanes at the sidewalk level separated from vehicle traffic by curbs (see **Exhibit ES-3** below).



Exhibit ES-3: Sidewalk Level Bicycle Lanes

- **T3: Side Paths** — shared off-street paths for pedestrians and cyclists in constrained right-of-way areas (see **Exhibit ES-4** below).

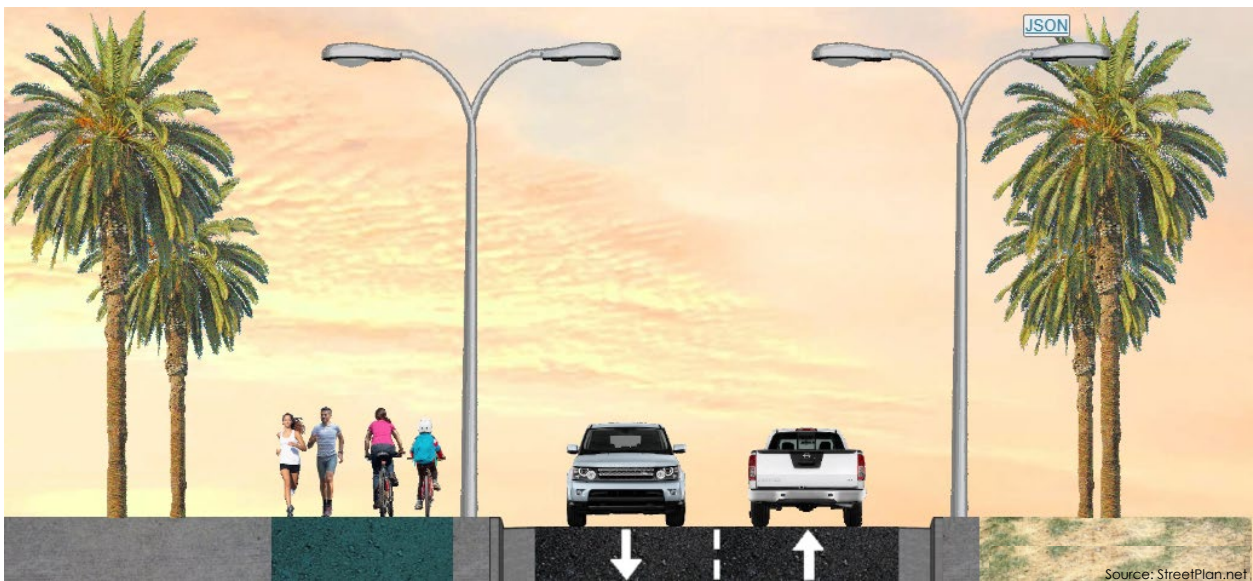


Exhibit ES-4: Side Paths

PLANNING LEVEL COST ESTIMATES

Cost estimates for implementing bikeway improvements were developed using cost-per-mile methods adjusted to 2026 values:

- Protected Bicycle Lane: approximately \$2.43 million per mile
- Side Path: approximately \$825 thousand per mile
- Sidewalk-Level Bicycle Lane*: approximately \$3.35 million per mile

**Sidewalk-Level Bicycle Lane has higher costs due to the need for curb relocation, drainage modifications, ADA-compliant sidewalk reconstruction, pavement work, and potential utility conflicts, resulting in greater construction complexity than other bicycle facility types.*

RECOMMENDATIONS AND IMPLEMENTATION PLAN

The recommendations developed in this study establish a framework to guide the planning and implementation of identified improvements. Key aspects of this implementation plan address project prioritization, funding identification, program monitoring, and policy recommendations, providing a comprehensive roadmap for enhancing bicycle infrastructure and supporting the long-term growth of a connected network serving students and the broader community.

- **Project Prioritization:** The plan recommends advancing improvements based on the Tier III prioritization framework, balancing need with cost considerations to maximize value. Projects may be prioritized by need or by cost efficiency, depending on funding availability, as shown in **Table ES-1** on the next page.

Table ES-1: School Prioritization for Implementation

Prioritization by Need ¹		Prioritization to Maximize Available Funds			
Priority Order		Priority Order		Total Gap (miles) to Improve	Bike/Ped Facilities Total Cost ²
1	Edison Park K-8 Center	1	Hammocks Middle School	1.29	\$ 4,338,354
2	Georgia Jones-Ayers Middle	2	West Homestead	1.53	\$ 4,472,525
3	Lillie C. Evans K-8 Center	3	Lillie C. Evans K-8 Center	2.56	\$ 6,587,084
4	Shenandoah Middle	4	Cutler Bay Middle School	3.05	\$ 7,156,270
5	Coral Gables Prep	5	Paul W. Bell Middle	2.59	\$ 8,805,413
6	West Homestead	6	John F. Kennedy Middle School	3.29	\$ 10,901,439
7	Homestead Middle	7	South Miami Middle	4.36	\$ 10,988,287
8	John F. Kennedy Middle School	8	Coral Gables Prep	6.06	\$ 12,054,987
9	Hialeah Middle	9	Carol City Middle School	3.99	\$ 12,174,700
10	Cutler Bay Middle School	10	Miami Beach Fienberg/Fisher K-8 Center	6.14	\$ 14,144,567
11	Miami Beach Fienberg/Fisher K-8 Center	11	Winston Park K-8 Center	7.05	\$ 14,979,095
12	Carol City Middle School	12	Homestead Middle	6.71	\$ 19,563,158
13	Winston Park K-8 Center	13	Hialeah Middle	7.66	\$ 21,113,047
14	Hammocks Middle School	14	Georgia Jones-Ayers Middle	11.78	\$ 36,452,180
15	Paul W. Bell Middle	15	Shenandoah Middle	24.22	\$ 62,985,479
16	South Miami Middle	16	Edison Park K-8 Center	30.73	\$ 91,605,768
		TOTAL ESTIMATE		123.01	\$ 338,322,353

1. Prioritization based on socio-economic factors (including Population Density, Connectivity to Transit, Population Below Poverty Level, Households Without a Vehicle, Population Under Age 15, Median Household Income).

2. Costs include: Project Development, Construction and CEI, consistent with the 2050 Master Plan Cost Estimation Methodology. See Appendix of this report for cost break down by gap segment for each school.

Funding Opportunities: Potential funding sources include:

- Federal programs such as the Transportation Alternatives Program (TAP), Safe Streets and Roads for All (SS4A), and Reconnecting Communities & Neighborhoods (RCN) Grant.
 - State programs including FDOT Safe Routes to School and SUN Trail programs.
 - Local sources like Miami-Dade Safe Routes to Parks, capital budgets, bonds, and Public-Private partnerships.
 - Private foundations and developer contributions.
- **Project Development:** The selected corridors and improvements comprising the bike networks surrounding each school identified in this pilot study will need to be refined through a rigorous project development process. This should include corridor level feasibility studies to refine and confirm the appropriate bikeway facility type followed by a final design phase prior to project implementation.
 - **Feasibility Studies:** Detailed corridor level feasibility studies should be conducted to confirm engineering, operational, and financial viability, including traffic impacts, right-of-way constraints, and safety improvements.
 - **Final Design:** Upon the completion of corridor level feasibility studies detailed engineering plans should be prepared addressing all design

elements including buffers, drainage, lighting, signage, and ensuring compliance with design standards.

- **Program Monitoring:** A monitoring framework with performance targets and key performance indicators (KPIs) is proposed to evaluate the effectiveness of bikeway improvements. Potential KPIs include:
 - Bicycle usage among students.
 - Improving the perceptions of safety.
 - Reducing bicycle-vehicle crashes over time.
 - Annual bicycle counts and surveys to gather feedback.
- **Policy Recommendations:** To facilitate the implementation and development of connected bikeway networks surrounding the middle schools that advanced through all three tiers of the screening process in this study, various policy recommendations are proposed. These recommendations not only address the immediate needs of the selected schools but also propose a strategic framework for extending bikeway infrastructure to the remaining middle schools in future years, ensuring a phased and sustainable approach to expanding the network. Accordingly, policy recommendations are geared towards:
 - Setting clear goals for bicycle networks serving school-aged users.
 - Linking bikeway selection to multimodal safety and Vision Zero objectives.
 - Defining success metrics aligned with Complete Streets principles.
 - Establishing transparent project prioritization and funding frameworks.
 - Ensuring context-sensitive planning and design adaptable to local conditions.
 - Allowing design flexibility and innovation where standard designs are infeasible.
 - Limiting curbside parking adjacent to in-road bike lanes to enhance safety.
 - Providing secure, convenient end-of-trip facilities at schools, including monitored bike parking and gear lockers.

These policy recommendations can provide a workable framework to reduce barriers to designing and implementing the improvements proposed in this study, as well as to promote initiatives that incentivize middle school students to use the improved bicycle facilities once completed. Together, these recommendations would lay the groundwork for a countywide deployment of the Bikeways Plan following a successful demonstration of the improved networks around the pilot schools.