



CHAPTER 5 – NEEDS ANALYSIS

Identification of Network Needs

The steps taken to identify and prioritize bicycle and pedestrian infrastructure gaps and needs on collector and arterial roads were the following:

1. **Plan Review** – Review of plans and documents that address bicycle and pedestrian issues and opportunities. The plans review noted the following:
 - FDOT released a list of the top five bicycle and pedestrian crash corridors while work on this Plan was underway. FDOT's list coincides, for the most part, with the high-crash corridors that this Plan had already identified. The only notable difference is that FDOT's list does not include US-41 (Tamiami) between 91st Avenue and 111th Avenue as this Plan does.
 - Collier County's TIGER grant goes a long way towards implementing the Immokalee Walkable Community Study, thereby addressing two primary concerns raised by this Plan—safety and equity (EJ). In addition, FDOT is in the process of implementing a bicycle and pedestrian safety project on Immokalee's Main Street.
 - The Golden Gate City Walkable Community Study completed in 2019 addresses another EJ and high-crash location identified by this Plan.
2. **Inventories** – The MPO's 2017 bicycle and pedestrian facilities inventory maps were reviewed and commented on by local agencies, stakeholders, and the community through an extensive public outreach effort, resulting in further edits. While the BPMP was underway, the MPO entered into an agreement with the Naples Pathway Coalition (NPC) to develop a joint bicycle facilities map in partnership with NPC and the City of Naples Community Services Department. In the process, MPO staff approved many revisions to the MPO's 2017 facilities inventory. The joint map was completed and published in November 2018 and those GIS files were then used by the BPMP consultant to update all of the Plan's base maps again. Going forward, NPC agreed to serve as the recipient of comments regarding the joint map's accuracy, and the MPO agreed to update the GIS files on an as-needed basis. Given that improving the accuracy of the facilities inventory remains an ongoing effort, field review is a necessary precursor for all projects that MPO member entities wish to advance through the funding application process.
3. **Public Input** – In addition to the public outreach described in Chapter 3, the MPO posted an interactive map on its website using a Wiki map platform. The interactive map generated nearly 400 total comments, roughly 250 of which were gathered at the Marco Island Farmer's Market and input into

Arterial road: A roadway that serves primarily through traffic and secondarily provides access to abutting properties.

Collector road: A roadway providing access and traffic circulation service to a residential, commercial, or industrial area and secondarily provides for local through traffic.

Local road or street: A route providing service that is of relatively low traffic volume, serving short trip length, or minimal through-traffic movements, and a high degree of access for abutting properties. Local roads may be privately owned or governed by Collier County or the incorporated municipalities in the county.

the Wiki map; these comments expressed support for the top priorities in the City of Marco Island Bike Path Master Plan. The remaining 150 comments were attributable to 25 unique creator IDs, most of which were from people living in the western and southern parts of the county. The project's consultants created a GIS overlay from the Wiki maps data.

4. **Crash and EJ Data** – Analysis of crash and EJ data overlays showing concentrations of bicycle and pedestrian crashes indicates high-use areas related to adjacent land uses. The high-use areas in Collier County tend to occur in relation to tourism and services or in relation to EJ residential areas. The combination of these two factors—bicycle and pedestrian crash clusters and EJ communities—proved to be a useful marker for the needs of low-income, minority, and immigrant populations.
5. **Network Configuration** – MPO staff worked closely with the advisory committees and agency staff and considered public comment in the process of articulating design and planning policies related to roads (see Chapter 7.)
6. **Gap / Needs Analysis** – The project team (consultants and staff), using GIS as the basis, analyzed a series of overlays of the gathered data, public input, and draft policies to identify missing links in the bicycle/pedestrian network and portions of the network with deficiencies in the existing infrastructure. The combination of missing links and segments characterized as deficient infrastructure culminated in maps and related spreadsheets quantifying needs, continuously refined the prioritization criteria, and provided monthly updates with the advisory committees and stakeholders beginning in the fall of 2018.

The foregoing analysis identified a total of 74 miles of roadway lacking any type of bicycle and/or pedestrian facility and 150 miles of roadway lacking sufficient bicycle facilities (see summary in Table 7).

Table 7. Network Gaps/Facility Needs

Type of Gap in Bicycle Network	Mileage of Missing Facilities			
	<i>All Gaps on Collector & Arterial Roadways</i>	<i>Gaps Meeting Equity Criterion²</i>	<i>Gaps Meeting Safety Criterion</i>	<i>Gaps Meeting Equity and Safety Criteria</i>
No facility	73.9	22.9	2.4	0.0
Insufficient facility	150.3	44.5	13.1	5.8
Paved shoulder ¹	85.3	26.0	1.7	1.3
Connector sidewalk ¹	65.0	18.5	11.4	4.5
Total miles	224.2	67.4	15.5	5.8

¹Paved shoulder/ connector sidewalk are sub-categories of Insufficient Facility total.

²Equity criterion established as block groups receiving a medium, high, or very high ranking from the Composite Equity Analysis.

Priority Projects Identified

The following project priorities were identified based on the analysis that began with identifying EJ considerations in Chapter 1, followed by Safety in Chapter 2, then this chapter's Plan Review, Gaps and Needs Analysis.



Safety, Equity, and Multimodal Connections - Complete Streets/Safety Corridor Studies on High-Crash Locations on Arterial and Collector Roads

This Plan's support of FDOT's Complete Street's Policy (see Chapter 7) makes it possible to address a multiplicity of factors—equity/EJ, safety, high use, transit connections, and public and agency input. The in-depth multi-disciplinary analysis conducted during a Complete Streets/Safety study will develop recommendations to reduce crashes and improve safety. RSAs and the projects they recommend are eligible for federal Highway Safety Improvement Program (HSIP) funding.

Table 8. Complete Streets – Safety Corridor Studies

Rank	Road Name	From	To	Project Description
1	US-41 Tamiami Tr	Commercial Dr/Palm St	Guilford Rd	Review, adopt and implement FDOT RSA recommendations
	Airport Rd	US-41 Tamiami Tr	Estey Ave	
2	Airport Rd	Estey Ave	Golden Gate Pkwy	Corridor Study
3	US41 Tamiami Tr	Commercial Dr/Palm St	9th Ave	Corridor Study
4	Goodlette Frank	US-41 Tamiami Tr	Golden Gate Pkwy	Corridor Study
5	Davis Blvd	US-41 Tamiami Tr	Airport Rd	Corridor Study
6	Golden Gate Pkwy	Santa Barbara Blvd	Collier Blvd	Corridor Study

Network Gaps on Arterial and Collector Roads Prioritized by Public Input

The network gaps/facility needs shown in Table 7 identified a total of 224 miles of collector and arterial roadways in need of facility improvements. Appendix 10 contains the complete listing, alphabetized by road name with mileage shown by road segment and a description of the infrastructure gap.

The magnitude of the needs identified through technical analysis alone demonstrated the importance of prioritizing public investment; to do so, the project team used GIS to analyze the confluence of public comments and facility gaps. Figure 13 and Table 9 show the results of that analysis. These are the facility gaps identified by technical analysis that the public is most interested in addressing at this time. The segments identified total 66 miles, an amount that is within reach of achievement by concerted effort of all parties.

Figure 13: Bicycle and Pedestrian Facility Gaps Overlapped with Public Comment

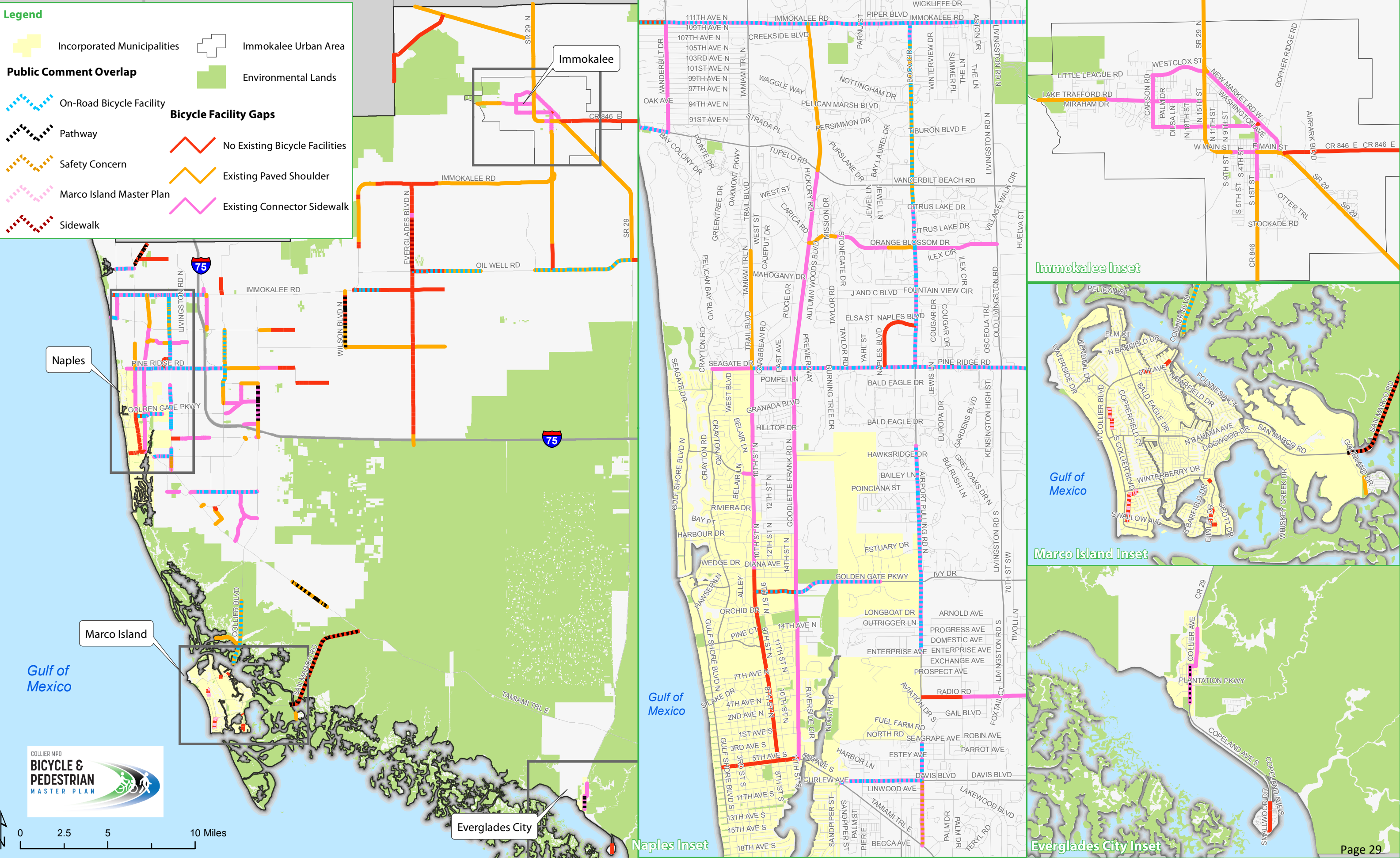


Table 9. Prioritized Bicycle and Pedestrian Facilities

Road	From	To	Dist	Agency	Facility Type
111TH AVE N	VANDERBILT DR	TAMIAMI TRL N	1.0	Collier Co	Bike Lane/Path
AIRPORT RD N	PINE RIDGE RD	IMMOKALEE RD	4.2	Collier Co	Bike Lane/Path
AIRPORT RD N	S HORSESHOE DR	PINEWOODS CIR	2.5	Collier Co	Bike Lane/Path
AIRPORT RD S	SEAGRAPE AVE	DAVIS BLVD	0.5	Collier Co	Bike Lane/Path
AIRPORT RD S	DAVIS BLVD	TAMIAMI TRL E	0.8	Collier Co	Safety
BLUEBILL AVE	BLUEBILL AVE	VANDERBILT DR	0.4	Collier Co	Bike Lane/Path
BONITA BEACH RD	VANDERBILT DR		1.7	Collier Co	Bike Lane/Path
CASTAWAYS ST	SATURN CT	AMAZON CT	0.2	Marco Is	Marco Master Plan
COLLIER BLVD	17TH AVE SW	CITY GATE BLVD N	2.0	Collier Co	Bike Lane/Path
COLLIER BLVD	N END JOLLEY BRIDGE	FIDDLERS CREEK PKWY	3.6	Collier Co	Bike Lane/Path
COPELAND AVE S	BROADWAY	OYSTER BAR LN	0.7	Everglades	Pathway
DAVIS BLVD	TAMIAMI TRL	AIRPORT RD S	1.0	Collier Co	Bike Lane/Path
EVERGLADES BLVD	OIL WELL RD	58TH AVE NE	3.1	Collier Co	Sidewalk
GOLDEN GATE PKWY	9TH ST N	ESTUARY BLVD	1.6	Naples	Bike Lane/Path
GREENBRIER ST	MANOR TER	SATURN CT	0.2	Marco Is	Marco Master Plan
IMMOKALEE RD	TAMIAMI TRL	NORTHBROOKE DR	4.0	Collier Co	Bike Lane/Path
LOGAN BLVD N	LOGAN BLVD	VANDERBILT BEACH RD	1.1	Collier Co	Bike Lane/Path
LOGAN BLVD S	LOGAN BLVD	GREEN BLVD	2.0	Collier Co	Bike Lane/Path
OIL WELL RD	EVERGLADES BLVD N	OIL WELL GRADE RD	3.9	Collier Co	Bike Lane/Path
OIL WELL RD	AVE MARIA BLVD	SR 29	5.7	Collier Co	Bike Lane/Path
OLD US 41 N	TAMIAMI TRL	PERFORMANCE WAY	1.5	Collier Co	Pathway
PERU ST		SEAGRAPE DR	0.1	Marco Is	Marco Master Plan
PINE RIDGE RD	TAMIAMI TRL	LOGAN BLVD S	5.1	Collier Co	Bike Lane/Path
RANDALL BLVD	RANDALL BLVD	APPROACH BLVD	1.5	Collier Co	Bike Lane/Path
RATTLESNAKE H RD	VALLEY STREAM DR	COLLIER BLVD	3.5	Collier Co	Bike Lane/Path
SAN MARCO RD	GOODLAND DR	TAMIAMI TRL E	6.5	Collier Co	Pathway
SANTA BARB BLVD	GREEN BLVD	17TH AVE SW	0.2	Collier Co	Bike Lane/Path
SATURN CT	CASTAWAYS ST	GREENBRIER ST	0.1	Marco Is	Marco Master Plan
SEAGRAPE DR	PERU ST	SWALLOW AVE	0.7	Marco Is	Marco Master Plan
TAMIAMI TRL E	GREENWAY RD	SIX LS FARM RD	2.5	Collier Co	Pathway
VANDERBILT BEACH RD	GULFSHORE DR	VANDERBILT DR	0.4	Collier Co	Bike Lane/Path
WIGGINS PASS RD	VANDERBILT DR	TAMIAMI TRL N	1.0	Collier Co	Bike Lane/Path
WILSON BLVD N	GOLDEN GATE BLVD	24TH AVE NE	3.0	Collier Co	Pathway
TOTAL MILES			66.3		

SunTrail Alignments and Spine Pathway Corridors

Figure 14 shows the two SunTrail alignments and other interconnected spine pathway corridors within Collier County that form an integrated, high-priority pathway network. The following paragraphs describe the network and the prioritized projects needed to complete it.

SunTrail Alignments – The Gulf Coast Trail is envisioned to be a regional facility linking Collier, Lee, Sarasota and Manatee counties. As such, it is critical to maintain regional connections across county boundaries. This Plan expands the Collier MPO’s previously-adopted alignment to include the Paradise Coast Bicycle Route that connects to a coastal alignment of the Gulf Coast Trail approved for Lee County. Collier’s Paradise Coast Bicycle



Route follows existing roadways that, for the most part, do not require additional signage or lane markings, with the exception of completing the missing link across Seagate Drive that would connect Crayton Road north and south. Public input and the Naples Pathways Coalition (NPC) strongly support filling this gap. The MPO will submit the new alignment to the Florida Department of Environmental Protection, Office of Greenways and Trails for consideration.

FPL Easement/Livingston/Rich King Greenway Alignment – The current SunTrail alignment occurs within a Florida Power and Light (FPL) easement that parallels Livingston Road and would connect with the existing Rich King Greenway. Constructing a Shared Use Path in this alignment has been a goal of the Bicycle and Pedestrian Advisory Committee (BPAC) for many years. The southeast portion of the current alignment occurs on-street except for the proposed Rookery Bay Greenway. Due to its environmental and hydrologic sensitivity, the Conservancy of Southwest Florida recommended eliminating the proposed trail through Rookery Bay and making other refinements to the current SunTrail–Southwest Coast Connector alignment. These revisions have been incorporated in this Plan (Figure 14).

FDOT is planning to conduct a safety study of US-41 Tamiami Trail east that may result in improvements to the existing shoulders to more safely accommodate cyclists and pedestrians. The roadway forms a gateway into a region of State and national parks, as well as a critical cycling link within Collier County in that it also connects to SR-29 and the greater Everglades City area.

Gordon River Greenway Connections – Improved connections to the Gordon River Greenway are needed to bridge the gap between the two SunTrail alignments. The Gordon River Greenway Master Plan calls for a pedestrian overpass over Golden Gate Parkway connecting Freedom Park with the Greenway to the south. Golden Gate Parkway is a critical connecting east/west roadway.

Golden Gate Canal Greenway (Proposed) – The Golden Gate Canal provides an opportunity to extend the off-street Shared Use Path system north and west, connecting to Golden Gate City, Ave Maria, Immokalee, and the Corkscrew Swamp Sanctuary.

Golden Gate Parkway between Santa Barbara and Collier Boulevards – This section of Golden Gate Parkway coincides with the Spine Trail Network and has been identified in this Plan for additional bicycle, pedestrian, and transit enhancements following Complete Streets design principles. The segment also falls within the newly-designated Golden Gate City Economic Development Zone and has been identified as needing improved bicycle and pedestrian safety features in the Golden Gate City Walkable Community Study (2019).

SR-29 and SR-82 – These roadways form a critical outer loop for recreational cycling. As adjacent lands become urbanized, portions of these roadways will serve as multimodal transportation.



Table 10. Prioritized Spine Pathway Projects

Rank	Road / Trail	From	To	Project Description
1	Seagate Crossing	Crayton Rd	Crayton Rd	Connect & improve crossing
2	Freedom Park Overpass	Golden Gate Pkwy	Gordon River Greenway	Pedestrian overpass estimated at \$5million
3	Wilson Road Connection to New Sports Stadium	Immokalee Road	New frontage road N of I/75	Shared Use Paths & bike lanes
4	Lake Trafford Rd	Endpoint of FPN 4433573 & 574	Lake Trafford	TBD through further study
5	Golden Gate Canal Greenway	Airport Rd	Oil Well Rd	Shared Use Path – paved
6	FPL Greenway along Livingston Rd	South of Golden Gate Pkwy	Lee County Line	Shared Use Path – paved
7	Golden Gate Pkwy	Livingston Rd	Gordon River Greenway	Shared Use Path – paved
8	Golden Gate Pkwy	Santa Barbara Blvd	Collier Blvd	Enhanced facilities, Complete Streets study – newly-designated economic development zone

Figure 14: SunTrail Alignments and Spine Pathway Corridors

Legend

Shared Use Path

Bicycle Facility

Connector Sidewalk

Paved Shoulder

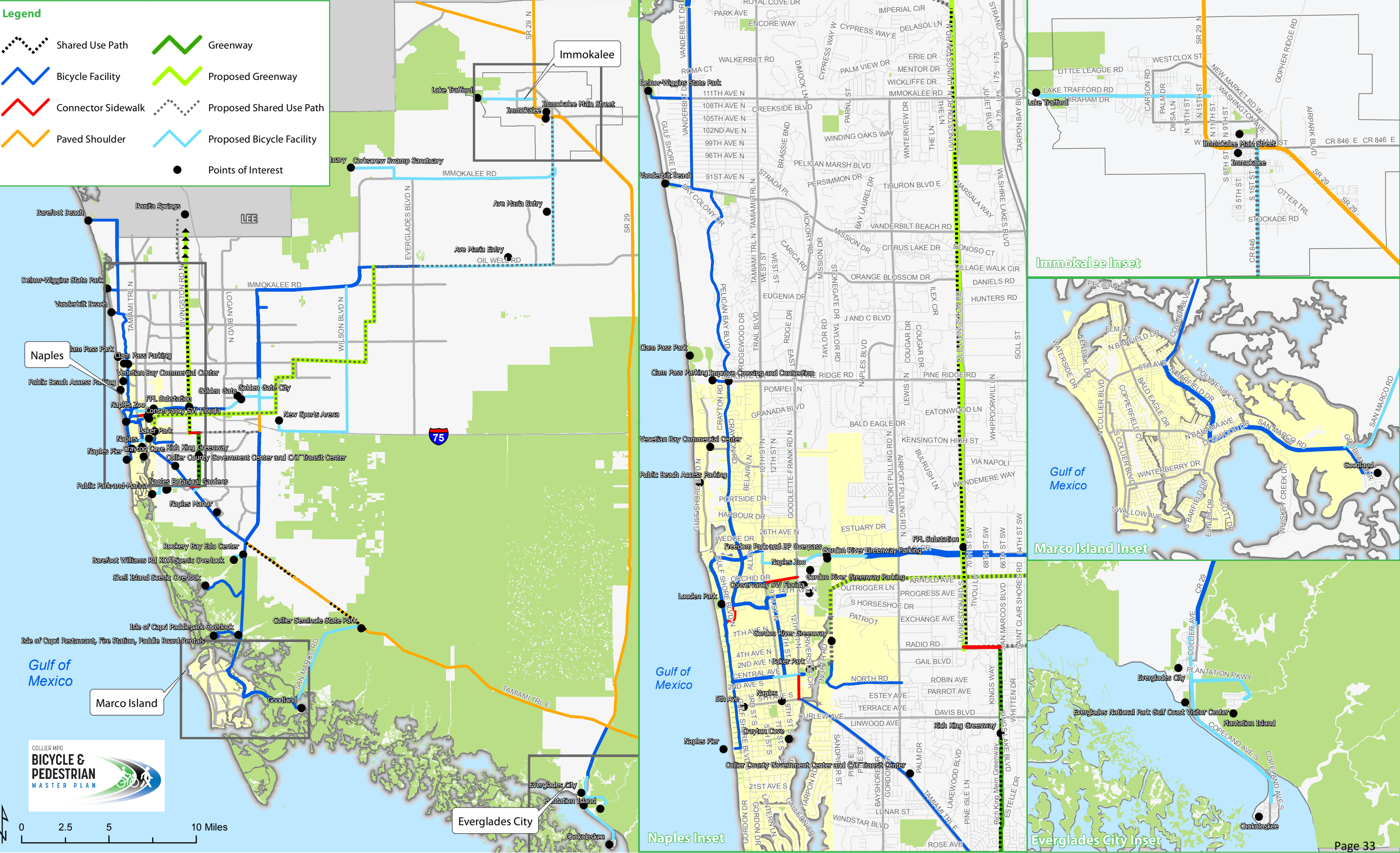
Greenway

Proposed Greenway

Proposed Shared Use Path

Proposed Bicycle Facility

Points of Interest

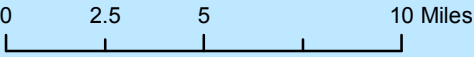


Immokalee Inset

Marco Island Inset

Everglades City Inset

Naples Inset





City of Naples Downtown Circulation & Connectivity Plan

The Naples City Council formally adopted Resolution 2018-14134 on April 4, 2018, which establishes that the City desires to maintain the existing number of vehicular travel lanes on US-41 and asks FDOT to work with City staff to establish other improvements that promote safe multimodal connectivity across US-41, as described in the Naples Downtown Circulation and Connectivity Plan. The Naples Downtown plan is incorporated by reference in this Plan.

A project calling for bicycle and pedestrian improvements to the Gordon River Bridge (5th Ave S) has regional significance and is therefore included as a high-priority project in this Plan (see Figure 15). The proposed design calls for narrowing the existing travel lanes, eliminating the shoulder, and moving the existing barrier to provide a 14-ft Shared Use Path on each side of the bridge at an estimated cost of \$2.6 million. The Gordon River Bridge has regional significance because it is the hub of the SunTrail and Spine Corridor Network, as shown in Figure 16.

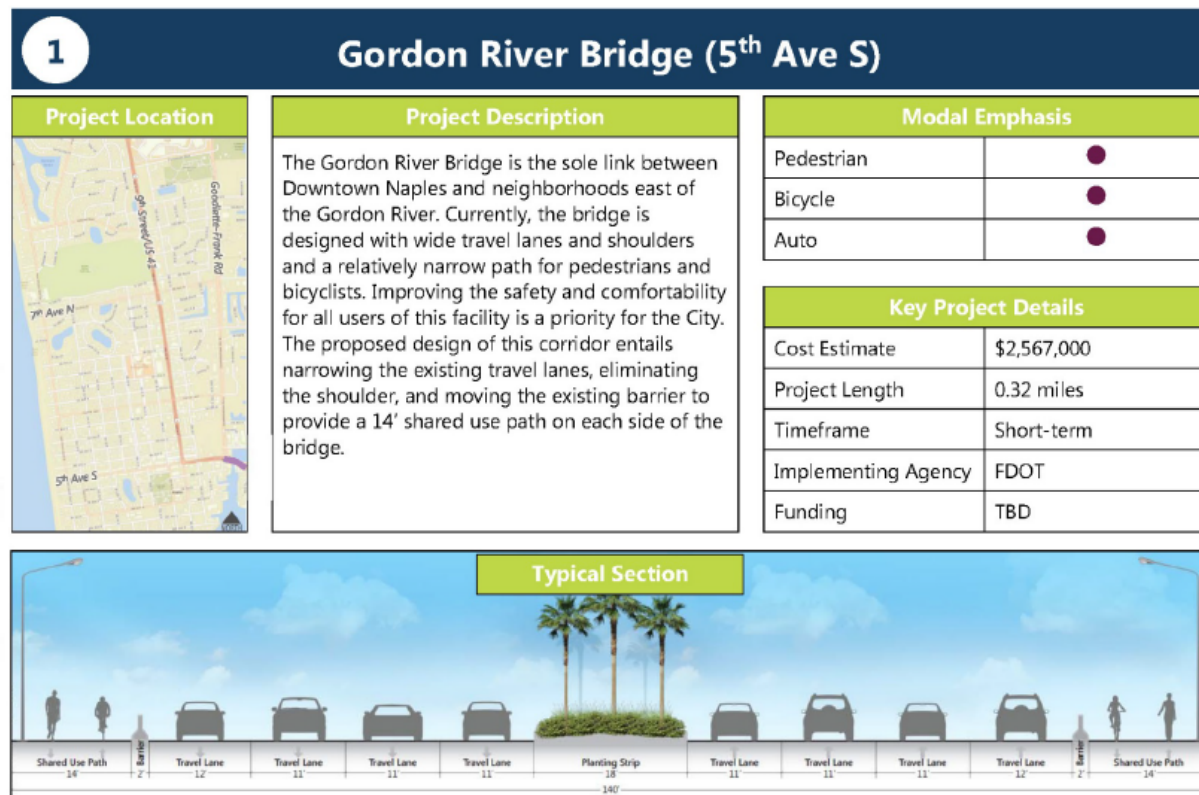


Figure 15. Gordon River Greenway Bridge

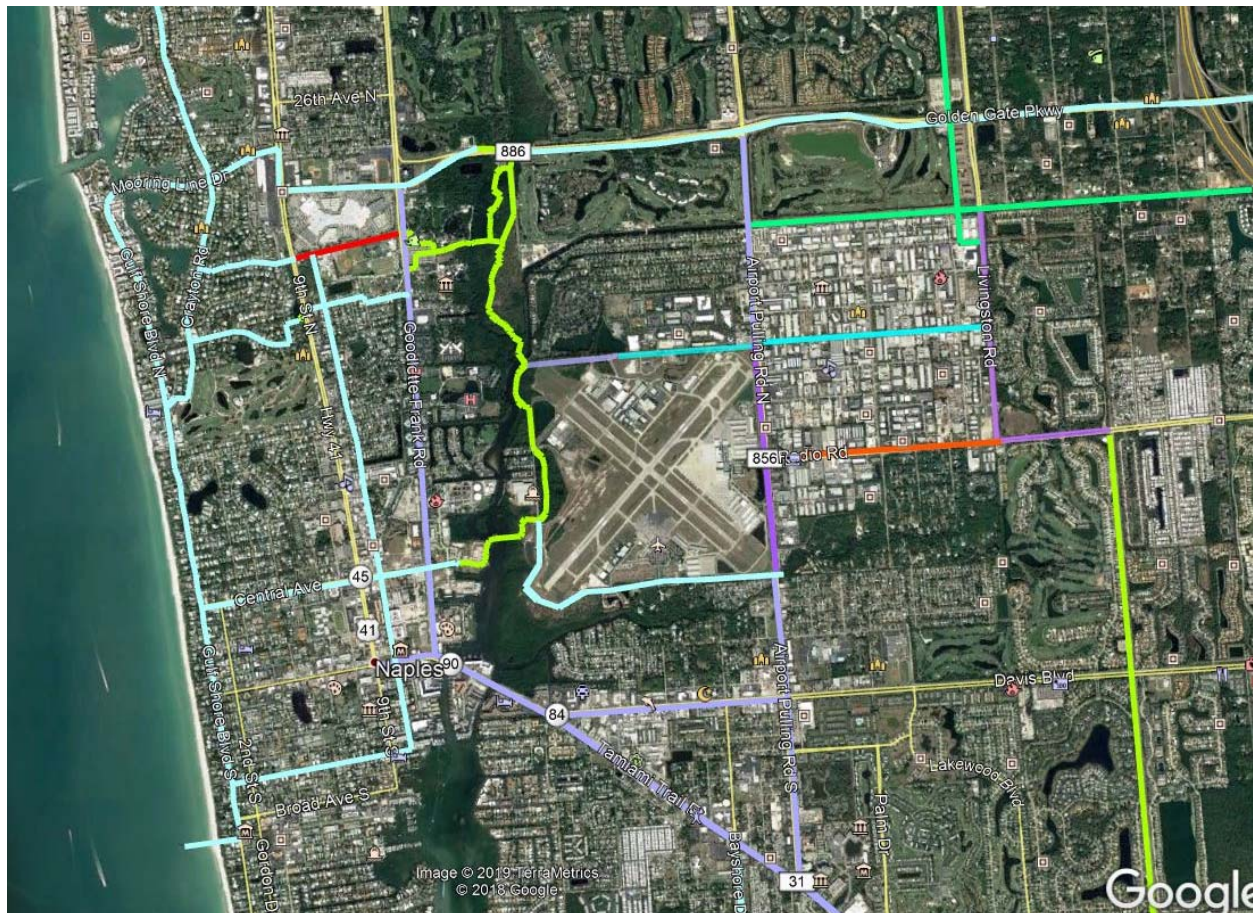


Figure 16. Gordon River Greenway – Regional Significance

Existing + Proposed Facilities

The project team added a layer to the needs analysis described above—capacity enhancement roadway projects identified in the 2040 Long Range Transportation Plan (LRTP). Roadway enhancement projects provide an excellent opportunity to expand the bicycle and pedestrian network in a cost-effective manner.

The Existing + Proposed Facilities Map (Figure 17) is a visual summary of the project priorities for major roadways and the Spine Trail network based on the foregoing analysis.

Figure 17: Existing + Proposed Facilities

Legend

Designated Bike Lane

Low Speed/Low Volume Road

Sharrow

Shared Use Path

Greenway

Paved Shoulder

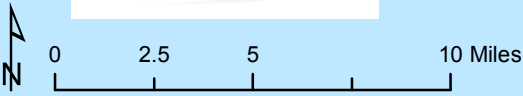
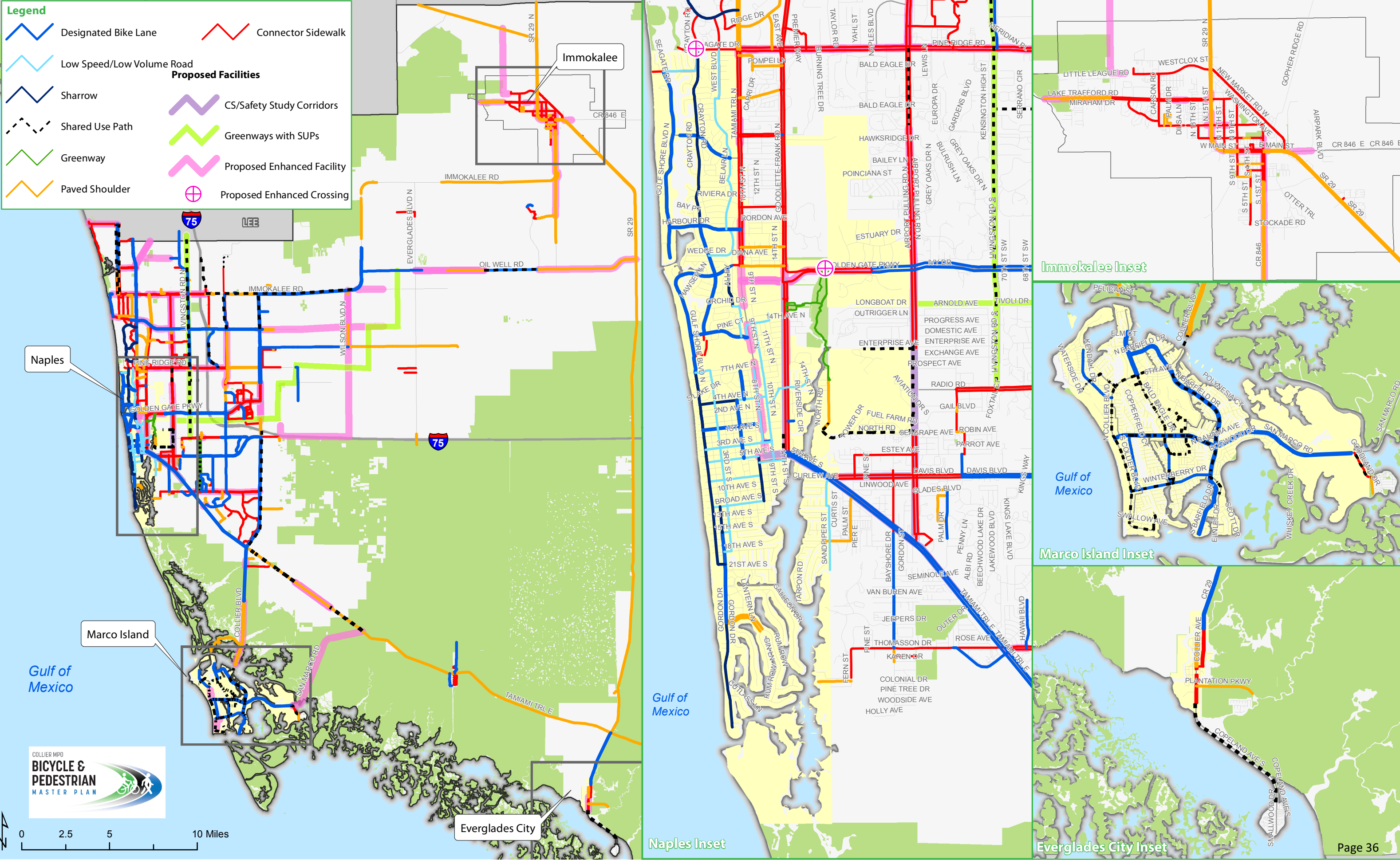
Connector Sidewalk

CS/Safety Study Corridors

Greenways with SUPs

Proposed Enhanced Facility

Proposed Enhanced Crossing



Local / Residential Roads

The MPO has completed four Walkable Community studies that focused on pedestrian needs in areas of the county with concentrated populations and, therefore, more walking and biking. The goal of each study was to identify infrastructure needs and prioritize them into separate tiers. Tier 1 identified the greatest needs as segments with no sidewalks, Tier 2 as sidewalks on only one side of the street, and Tier 3 included lighting and additional amenities. These studies generated a long list of projects, and considerable progress has been made building the Tier 1 projects.

This Plan recommends continuing to coordinate with the County to fund the recommended remaining Tier 1 facilities from the first three studies as well as the Tier 1 priorities from the fourth study adopted in 2019. (Tiers 2 and 3 in high-need areas should be considered and may present opportunities to partner with local groups or agencies.) The Tier 1 segments were combined with the top priorities of Everglades City and Marco Island (a walkable community study has not been done in either city.). Each candidate project on the combined list was then scored and ranked using the methodology developed based on the Plan's goals. Table 11 lists these criteria and the point values. The list of projects and their relative priority is provided in the Appendix 11.

Table 11- Prioritization Criteria for Use on Local Road or Local Agency Bicycle and Pedestrian Needs

Criterion	Intention	Points
Safety	Increase safety for people who walk and ride in Collier County.	25
Connectivity	Enhance the network of efficient, convenient bicycle and pedestrian facilities in Collier County.	20
Equity/Livability	Increase transportation choice and community livability through development of an integrated multimodal system.	20
Economic Development	Promote tourism and economic opportunities by developing a safe, connected network of biking and walking facilities.	15
Community Support	Has an agency or local group provided written support?	10
Readiness	Has advanced work, such as engineering or feasibility study, been completed?	5
Major Road – Bike or Pedestrian Access	Provides bike or pedestrian access to major roads.	5

Because many local road projects identified in previous walkability studies have been constructed, the need for more projects was identified. Analysis yielded 360 miles of sidewalk needs throughout Collier County where there are no sidewalks on either side of the street. In collaboration with the County, a screening process was developed to identify the highest-priority segments. The screening identified roads segments that were within one mile of a school or a transit stop and that also were in a medium, high, or very high EJ area. The results of this analysis yielded 160 miles of road segments that are within one mile of a transit stop and that meet the EJ criteria and 146 miles of road segments within one mile of a school and that meet the EJ criteria. These results are graphically displayed in Figures 18, 19, and 20.

Review of these needs identified much overlap between sidewalk gaps around schools and near transit stops. Figure 20 shows the sidewalk gaps that satisfy both criteria. In total, 119 miles of sidewalks could be constructed that would facilitate safer access to schools and to transit stops. Appendix 12 lists the name of each road that passed these screens.



This Plan focused on sidewalks in residential areas. Towards the end of the planning process, MPO staff received a request from members of the public to include completing sidewalk and bicycle connections in office and industrial areas. The concept has tremendous merit; however, this has not been vetted against the criteria developed for this Plan. MPO staff will work with interested parties and local agencies to try to identify funding for specific proposals on a case-by-case basis.

Local Agency Priorities on Local Roads

Adopted local agency plans are incorporated into this Plan by reference. Current priorities are described in the following paragraphs.

Everglades City

Everglades City is developing its own Bicycle and Pedestrian Master Plan. Once adopted by the City Council, the plan, including any adopted updates, will automatically be incorporated in this Plan by reference, assuming the policies towards US-41 East are compatible with MPO Board directives. The Everglades City Council has endorsed the following four sidewalk projects as their highest priority:

- Copeland Avenue – City Hall to Chokoloskee Causeway – sidewalk on east side of road
- Datura Street – E School Drive to Collier Avenue (SR-29)
- Broadway – Riverside Drive to Copeland Avenue
- Collier Avenue (SR-29) – Begonia to bridge

Immokalee Urban Area

In 2018, Collier County was awarded a \$13 million TIGER grant to make sidewalk and other improvements in Immokalee. The County identified the sidewalk projects in the grant application based on the adopted Immokalee Walkable Community Study. Implementing the TIGER grant will significantly improve the pedestrian and cycling network in Immokalee along with improved connections to transit.

This Plan identifies SR-29 and SR-82 as critical components of the Spine Trail Network for Collier County. In addition, the Immokalee CRA's request to extend bicycle and pedestrian facilities along Lake Trafford Road all the way to the lake is acknowledged as a Spine Trail priority. The drainage issues along this segment will need to be addressed by a different funding source than that used for bike/ped facilities. The details are under discussion between FDOT, the CRA, Collier County and MO staff at the time this Plan was published.

Marco Island

The current, adopted Bike Path Master Plan map is shown in Figure 21. Marco Island updates its Bike Path Master Plan, which has significant public support, on a regular basis. Future updates of the plan are automatically incorporated into this Plan by reference. The City Council notes the following projects as current, top priorities for the plan:

- Collier Boulevard – alternate bike lanes (Landmark extension)
- Bald Eagle Drive – bike lanes (Collier to San Marco)

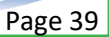
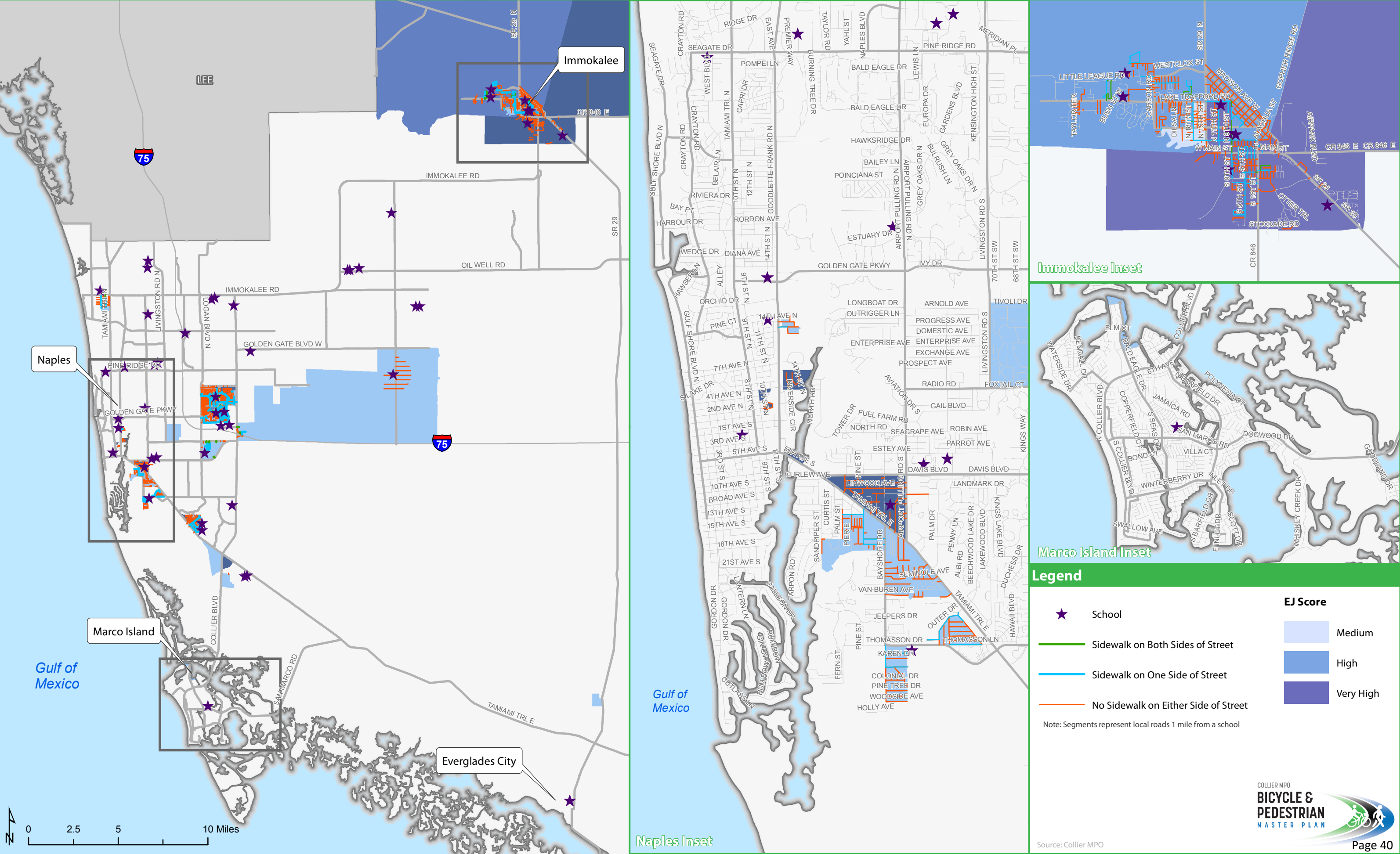


Figure 19: Sidewalk Segments - School Proximity and EJ



Marco Island Bike Path Master Plan





Naples

The City of Naples' Five-Year Goals and Objectives for Priority Bicycle Pathways are shown in Table 12. The Naples 2013 Pedestrian and Bicycle Master Plan includes a list (see Figure 22) of priority sidewalk projects. They are not individually ranked; however, the City selects locations to install sidewalks from this list. The first four projects on the list have been constructed or programmed to be built. Future updates to the City of Naples Pedestrian and Bicycle Master Plan and/or bicycle and pedestrian facility priority lists are automatically incorporated into this Plan by reference.

Table 12. Naples Priority Bicycle Pathways – Five-Year Goals & Objectives

Location	From	To	Project Description	Cost
Gulf Shore Blvd	Mooring Line Dr	20th Ave S	Sharrow designation (with resurfacing)	\$ 5,000
Crayton Rd	Seagate Dr	Neapolitan Way	Sharrow designation (with resurfacing)	\$ 2,500
14th Ave N	US41	Goodlette-Frank	Sharrow designation	\$ 5,000
Fleishman Blvd	US41	Goodlette-Frank	8'-12' multiuse pathway on south side	\$ 70,000
Central Ave	10th St	Riverside Cl	Designate bike lanes with future CRA streetscape improvements	n/a
Central Ave	6th St	8th St	Designate bike lanes with resurfacing	\$ 3,500
3rd Ave S	US41	10th St	Designate bike lanes with resurfacing	\$ 3,500
Total Cost				\$ 89,500



Figure 22 – Naples Priority Sidewalk Projects

Sidewalk on Residential Streets with support to include in Master Plan Update		
SEGMENT (Side)	FROM	TO
Old Trail Drive (North)	Park Shore Dr	Belair Lane
FPL Easement Pathway Trail	6th Avenue North	7th Avenue North
6th Avenue North (North)	10th Street North	FPL Easement Pathway
South Golf Drive (North)	Gulf Shore Blvd	US41
1st Avenue South (Both)	10th Street South	Goodlette
13th Avenue South (South)	3rd Street South	Gordon Drive
2nd Avenue South (North)	Gulf Shore Blvd	3rd Street South
4th Avenue South (North)	5th Street South	6th Street South
4th Avenue South (North)	Gulf Shore Blvd	2nd Street South
7th Street North (East)	4th Avenue North	South Golf Drive
4th Street South (West)	Central Avenue	1st Avenue South
5th Street South (East)	1st Avenue South	4th Avenue South
6th Avenue South (North)	GSBS	West Lake Drive
7th Avenue South (North)	GSBS	West Lake Drive
8th Avenue South (North)	GSBS	3rd Street South
9th Avenue South (South)	GSBS	3rd Street South
10th Avenue South (North)	GSBS	3rd Street South
11th Avenue South (North)	GSBS	3rd Street South
13th Avenue South (North)	3rd Street South	Gordon Drive
14th Avenue South (South)	3rd Street South	Gordon Drive
15th Avenue South (North)	3rd Avenue South	GSBS
East Gordon Dr. (Riley Park Path)	18th Avenue South	21st Avenue South
12th Avenue North (South)	Goodlette Frank Rd.	US 41
12th Street North (Easement Req)	3rd Avenue North	12th Street North
3rd Avenue North (Easement Req)	12th Street North	Goodlette Frank Rd.
12th Street South (East)	Central Avenue	1st Avenue South
Riverside Circle (South)	Goodlette-Frank Rd	Dog Park & Future Greenway
Mandarin Drive (West)	Banyan Blvd.	Orchid Drive
Pine Street (North)	Mandarin Drive	Banyan Blvd.
11th Avenue South (North)	5th Street South	6th Street South
4th St South (Both)	8th Avenue South	10th Avenue South
5th St South (Both)	9th Avenue South	11th Avenue South
6th St South (Both)	9th Avenue South	10th Avenue South
West Lake Drive (East)	7th Avenue South	8th Avenue South
East Lake Drive (Both)	5th Avenue South	8th Avenue South

Project Costs

Routine resurfacing and infrastructure projects represent some of the best and least expensive opportunities to add bicycle lanes and other facilities. Roads are restriped after being resurfaced, so the additional cost to include bike lanes when restriping is minimal. A paved bike lane may be added, or a paved shoulder may be converted to a bike lane as part of a roadway reconstruction project. Costs for construction will be impacted by the unique circumstances of each site, but generalized costs can be helpful when considering projects. Details such as drainage issues and right-of-way availability have not been confirmed as part of this study and would need to be identified during feasibility. Project costs have been estimated at a planning level. A more detailed engineer's estimate would be required for submission of a project for prioritization consideration.



There are a number of ways to fill sidewalk gaps, depending on the agency—during a resurfacing project or when a parcel is developed. Another option is to group a number of proximate sidewalk gaps into a “bundle” of projects to gain some efficiencies of scale. The rebuilding of infrastructure, whether it be sub-surface utility work or adding lanes, also provides an opportunity to add both bicycle and pedestrian facilities. Safe Routes to School funding is limited to gaps in walking infrastructure within two miles of middle schools, and applications for those projects are independent of roadway reconstruction.

The cost per mile estimates shown in Table 13 are based on the FDOT District 1 Long Range Estimates (last updated in 2018). It’s important to note that these costs are for new construction. For stand-alone projects that are retrofits on existing roadways, the costs are likely to double, or even quadruple, depending on available right-of-way, encroachments, drainage issues, the need to move or restore utilities, and other site conditions.

Table 13. Component Costs for Bicycle and Pedestrian Projects¹⁵¹⁶

Component	Cost
Bicycle Lane or Road Shoulders per Mile (5’ width, 2 sides) ⁽²⁾	\$532,000
Sidewalks per mile (5’ width, 1 side)	\$154,000
Shared Use Trail per mile (12’ width)	\$286,000

Table 14 shows order of magnitude costs for constructing different combinations of bicycle and pedestrian facilities on the road segments identified as meriting Proposed Enhanced Facilities (see Figure 17, page 37.)

Table 14- Cost of Proposed Enhanced Facilities by Mileage Totals (Based on Table 13 and various combinations of facilities described in Ch 6 Design Guidelines from most to least expensive.)

Component	Mileage/number	Cost Per Mile	Cost
Shared use paths and bike lanes on both sides of roadway	122	\$1,104,000	\$135 million
Bicycle lanes on both sides, shared use path on one side, sidewalk on the other	122	\$972,000	\$119 million
Bicycle lanes and sidewalks on both sides of roadway	122	\$840,000	\$103 million
Bicycle lanes on both sides; shared use path on one side	122	\$818,000	\$100 million
Bike lanes on both sides, sidewalk on one side	122	\$686,000	\$ 84 million

¹⁵ FDOT D1 Long Range Estimates (LRE) last updated 2018 (rounded to nearest \$1,000).

¹⁶ MPO staff approximation based on cost per vehicle lane miles new construction, rural setting