BPAC AGENDA

Bicycle/Pedestrian Advisory Committee
NOTE: THIS IS AN IN-PERSON MEETING
IT Training Room, 5th Floor Collier
County Government Center Administration Building (F)
3299 Tamiami Trail East, Naples, FL, 34112

August 19, 2025
9:00 a.m.

1. **Call to Order**
2. **Roll Call**
3. **Approval of Agenda**
4. **Approval of the Meeting Minutes for BPAC on:**
   A. February 18, 2025
   B. March 18, 2025
   C. April 22, 2025 (Joint Lee-Collier MPO BPAC/BPCC Committee Workshop)
5. **Open to the Public for Comment on Items not on the Agenda**
6. **Agency Updates**
   A. FDOT
   B. MPO
7. **Committee Action**
   A. Bicycle & Pedestrian Master Plan (BPMP): Review and Comment on Final Draft
   B. Comprehensive Safety Action Plan (SAP): Review and Comment on Final Draft
8. **Reports & Presentations (May Require Committee Action)**
9. **Member Comments**
10. **Distribution Items**
11. **Topics for Future Meetings**
12. **Next Meeting Date**

    September 16, 2025 – 10:00 a.m.
    Location: Collier County Government Center Admin. Bldg. F. IT Training Rm 5th Floor, 3299 Tamiami Trail East
13. **Adjournment**

PLEASE NOTE:

The meetings of the advisory committees of the Collier Metropolitan Planning Organization (MPO) are open to the public and citizen input is encouraged. Any person wishing to speak on any scheduled item may do so upon recognition of the Chairperson. Any person desiring to have an item placed on the agenda should contact the MPO Director at least 14 days prior to the meeting date. Any person who decides to appeal a decision of the advisory committee will need a record of the proceedings pertaining thereto, and therefore may need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting should contact the Collier Metropolitan Planning Organization 72 hours prior to the meeting by calling (239) 252-5814. The MPO's planning process is conducted in accordance with Title VI of the Civil Rights Act of 1964 and Related Statutes. Any person or beneficiary who believes that within the MPO's planning process they have been discriminated against because of race, color, religion, sex, age, national origin, disability, or familial status may file a complaint with the Collier MPO Title VI Coordinator, Ms. Suzanne Miceli, (239) 252-5814 or by email at: Suzanne.Miceli@colliercountyfl.gov, or in writing to the Collier MPO, attention: Ms. Miceli, at 2885 South Horseshoe Dr., Naples, FL 34104.

BICYCLE & PEDESTRIAN ADVISORY COMMITTEE of the
COLLIER METROPOLITAN PLANNING ORGANIZATION
Collier County Government Center, Administration Building (F)
IT Training Room, Fifth Floor
3299 Tamiami Trail East, Naples, FL, 34112
February 18, 2025 - 9:00 A.M.
Meeting Minutes

1. Call to Order

Mr. Matonti called the meeting to order at 9:01 a.m.

2. Roll Call

Ms. Miceli called roll and confirmed a quorum was present.

Members Present
Anthony Matonti (Chair)
Michelle Sproviero (Vice-Chair)
Andrea Halman
Joe Bonness
Kevin Dohm
Mark Komanecky
Robert Phelan
Robert Vigorito
Dayna Fendrick
Patty Huff
David Sutton

Members Absent
Al Musico

MPO Staff Present
Anne McLaughlin, Executive Director
Sean Kingston, Principal Planner
Suzanne Miceli, Operations Support Specialist II

Others Present
Bonita Schwan, Councilor, City of Marco Island and MPO Board Member
Michelle Avola-Brown, Naples Pathways Coalition
Kathy Eastley, Collier County Transportation Planning (arrived during 7B)
Lorraine Lantz, Collier County Transportation Planning
Anthony Arfuso, Capitol
Victor Nguyen, Capitol

3. Approval of the Agenda

Mr. Matonti noted that staff had suggested the agenda be amended to move item 7A (election of Chair and Vice-Chair after item 3 (approval of the agenda).

Mr. Dohm *moved to approve the amended agenda. Seconded by* ***Ms. Fendrick.*** *Carried unanimously.*

4. Approval of the Minutes

4.A. Approval of the November 19, 2024 Meeting Minutes

Ms. Halman asked that the minutes be modified to clarify that safety concerns continue to be an issue in Immokalee.

Mr. Matonti *moved to approve the November 19, 2024 minutes as modified. Seconded by* ***Mr. Dohm.*** *Carried unanimously.*

5. Open to the Public for Comment on Items Not on the Agenda

None.

6. Agency Updates

A. FDOT

FDOT: Ms. Merkle Tanya Merkle reported that no SUN Trail applications were received from Collier County for this cycle. Collier to Polk Trail is still underway, getting consultant teams together to start the PD&E. Signal 4 Bicycle and Pedestrian data for 2024 shows 37 serious injuries and 16 fatalities for Collier County. Safety is at the forefront, looking to any improvements already programmed to incorporate safety.

A group discussion followed regarding bicycle safety measures that FDOT, Collier County, and local municipalities are implementing; more signage, directional street paint, and education is needed for tourists who don't know the area; e-bike riders especially need education on how to ride safely; and drivers need to be more mindful of bicyclists.

Ms. Merkle said FDOT has safety programs in place to address these issues.

Ms. Huff pointed out that bicyclists should be considered when FDOT and local governments are repairing bridges

Councilor Schwan observed that the MPO Board is trying to deal with e-bikes and that it's important to communicate with bicyclists and drivers, and that educating hotel concierge staff is an important way to reach tourists. The City of Marco Island has added bollards on sidewalks and shared use paths where they intersect with roadways, as a way to make bicyclists and e-bike riders slow down and stop at stop signs. The bollards have glow-in-the-dark stripes, so they are visible at night.

B. MPO

Ms. McLaughlin mentioned the revised meeting calendar included as a distribution item in the agenda packet reflects changes to the BPAC regularly scheduled April meeting. **Mr. Kingston** described the scheduling change to accommodate the committee's joint meeting with their Lee MPO counterpart in April.

7. Committee Action

A. Annual Election of Chair and Vice Chair

Mr. Matonti indicated his willingness to serve as Chair for another term and noted his appreciation for the committee's hard work throughout the past year. **Ms. Sproviero**, when asked, indicated she also would be willing to serve another term as Vice-Chair.

Ms. Sproviero *moved to elect Mr. Matonti as Chair. Seconded by* ***Ms. Halman****. Motion passed unanimously.*

Ms. Fendrich *moved to elect Ms. Sproviero as Vice-Chair. Seconded by* ***Mr. Komanecky****. Passed unanimously.*

B. Bicycle & Pedestrian Master Plan (BPMP) – Review and Comment on the Draft Plan

Mr. Kingston said that MPO's consultant for the Bicycle & Pedestrian Master Plan (BPMP), Capital Solutions, had prepared the first draft of the BPMP for the committee's review and comment and that the committee may extend the review into next month's meeting to allow sufficient time to read all of it.

Mr. Matonti suggested going around the table so each committee member could provide comments on the draft.

Ms. Fendrick commented that the section on the Everglades City Bike-Ped Master Plan needs to be examined to make corrections where needed to street names and asked whether language referring to equity will cause issues with getting the BPMP approved.

Ms. McLaughlin replied that the MPO is awaiting guidance. The plans in process now are based on current federal law, if the laws change, staff is prepared to respond by quickly modifying the plans to keep them compliant with federal law.

A group discussion followed regarding the importance of compliance and aligning the BPMP scoring matrix accordingly.

Ms. Fendrick questioned how scoring based on costs exceeding initial budgets would work, given that when the committee reviews and scores projects the only cost information available is the projects initial cost estimate.

A group discussion followed, and the recent Marco Island project involving utility relocation expenses came up.

Mr. Arfuso explained that FDOT will not fund utility and drainage costs if they exceed a certain percentage of the project as a while.

Ms. McLaughlin noted that the cost item can be revisited so that it applies to the initial scoring exercise. When a project later comes in over budget, the MPO and FDOT would prefer to keep the project moving forward if sufficient funds are available, assuming that state and/or federal funds have already

been spent on design. The committee might want to clarify that lower cost projects should rise to the top of the ranking.

Mr. Matonti said if the cost percentage of moving utilities in a project is high, maybe it's time to rethink it.

Mr. Arfuso committed to looking at the criteria again.

Ms. McLaughlin suggested taking an existing project that was ranked by the committee previously and running it through the scoring matrix to see how well it performs, and whether the scoring criteria is having the effect the committee wants.

Mr. Phelan commented, we discussed the aspects we wanted in the plan, and they are here.

Mr. Bonness noted the Plan's cover photo is of a boardwalk at the CREW Bird Rookery Swamp Trails boardwalk and it would be a great location for a feasibility study to connect the Collier to Polk Trail to the Paradise Coast Trail and up into Lee County.

Mr. Vigorito – no comments.

Ms. Sproviero based on low attendance at the BPMP public meetings so far, what can be done to get more outreach to the public? Marco Island has been successful reaching out at farmers markets.

Ms. McLaughlin noted ongoing efforts including upcoming participation at the Golden Gate Community Market and the Cattle Drive Jamboree event in Immokalee**.**

Mr. Matonti observed that people come out to events when a project negatively affects them.

Ms. Sproviero concurred with the need to rethink the scoring matrix and wight percentages more safety education and outreach, include HOAs.

Ms. Huff, regarding the table on p. 9, the data for Everglades City and Chokoloskee are wrong. There is no transit to Everglades City and the majority of residents bike and walk. The income ranges are too high; the Harry Chapin Food Pantry serves about 100 people (25% of the population) a week who qualify for services; and a high percentage of elementary students qualify for free lunches.

Ms. Halman the income ranges are too high for Immokalee as well.

Mr. Arfuso made a commitment to review the socioeconomic data again.

Mr. Komanecky agreed that the data does not look correct and that there may be missing data due to small population size. Would like to see graphics added for key data so most important elements are well communicated. Otherwise, it's a good start.

Mr. Arfuso confirmed that graphics and photos were to be added after the text is substantially completed and approved by the committee.

Mr. Dohm clarified that a shared use path shown as scheduled for construction in 2024 on the Marco Island map has been completed and the map should be updated.

Mr. Arfuso will ask the City to provide an updated map if one is available.

Ms. Halman stated, there is no safe place to ride on Immokalee Road.

Ms. McLaughlin when the Immokalee Loop Rd is completed it should alleviate traffic on Immokalee Rd and provide an opportunity to add more bicycle facilities there.

Ms. Halman responded the Loop Road won't reduce traffic because the casino is there.

Ms. McLaughlin we can add safe bike facilities on Immokalee rd. as a priority in the plan.

Ms. Halman noted this would be her last meeting. She is retiring from BPAC and other committee responsibilities.

Mr. Arfuso asked committee members to send in their comments and noted public comments are still accepted on the MPO's website.

8. Reports & Presentations (May Require Committee Action)

None.

9. Member Comments

Ms. Huff, the Trail Town designation gives Everglades City attention as demonstrated by the Florida Greenways and Trails Council coming to Everglades City April 10 and 11, 2025. Conference topics include bike-ped projects approved by the MPO Board. This coming Friday at 1pm there will be a groundbreaking ceremony for the Bank of the Everglades renovation by the Historical Society.

Mr. Dohm mentioned tha**t** the Trail Town organizers are coming to Marco Island to advise the city.

Ms. Avola-Brown mentioned the Naples Pathway Coalition's annual bike and pedestrian walk/run event is coming up.

10. Distribution Items

A. Letter of Support for BERT SUN Trail Application
B. Updated 2025 MPO Meeting Calendar.

11. Topics for Next Meeting

Continuation of review of BPMP.

12. Next Meeting Date

March 18, 2025 *– 9:00 a.m.* ***Location****: Collier County Government Center, Admin. Bldg. F, IT Training Room, 5th Floor, 3299 Tamiami Trail East, Naples, 34112*

13. Adjournment

Mr. Matonti adjourned the meeting at 11:05 a.m.

BICYCLE & PEDESTRIAN ADVISORY COMMITTEE of the
COLLIER METROPOLITAN PLANNING ORGANIZATION
Collier County Government Center, Administration Building (F)
IT Training Room, Fifth Floor
3299 Tamiami Trail East, Naples, FL, 34112
March 18, 2025 - 9:00 A.M.
Meeting Minutes

1. Call to Order

Mr. Matonti called the meeting to order at 9:03 a.m.

2. Roll Call

Mr. Kingston called roll and confirmed a quorum was present.

Members Present
Anthony Matonti (Chair)
Michelle Sproviero (Vice-Chair)
Joe Bonness
Kevin Dohm
Mark Komanecky
Robert Phelan
Robert Vigorito
Patty Huff
David Sutton

Members Absent
Alan Musico
Dayna Fendrick

MPO Staff Present
Sean Kingston, Principal Planner

Others Present
Bonita Schwan, Councilor, City of Marco Island and MPO Board Member
Michelle Avola-Brown, Naples Pathways Coalition
Kathy Eastley, Collier County Transportation Planning (arrived during 7B)
Tanya Merkle, FDOT
Anthony Arfuso, Capital
Victor Nguyen, Capital
Olti Sefa, Collier County Solid & Hazardous Waste Management
Paul Greco, Countryside Golf & Country Club
Mahmoud Bennett, Fox 4

3. Approval of the Agenda

Mr. Bonness *moved to approve the amended agenda. Seconded by* ***Ms. Sproviero.*** *Carried unanimously.*

4. Approval of the Minutes

4.A. Approval of the February 18, 2025 Meeting Minutes

Mr. Sutton commented that the minutes did not include his statements about Diversity, Equity, and Inclusion (DEI). He requested reanalysis and editing of the minutes. **Mr. Kingston** mentioned that he could look into it and make the change.

Mr. Sutton *moved to review for approval of the February 18, 2025, minutes at the May 20 meeting. Seconded by* ***Mr. Komanecky.*** *Carried unanimously.*

5. Open to the Public for Comment on Items Not on the Agenda

Ms. Avola-Brown remarked that the legislative session started in the beginning of March. We are pushing for hands-free cell phone legislation in House Bill 501 and Senate Bill 1318. Last year it was supported by all committees. This past Wednesday, Chair of Government Operations Subcommittee on the House blocked it. The House Speaker is supportive. Representatives Linda Chaney and Will Robinson are opposed. Please email them to put it on the agenda. **Council Member Schwan** mentioned that the MPO did send a letter in support.

Ms. Avola-Brown continued, how she has been trying to reach out to the Collier County School Board to include a short quiz that is on the Florida Bicycle Association website as safety training that also includes monetary rewards. She recommended the BPAC contact the schools because there are resources to prevent these tragedies from happening.

Mr. Phelan *made a motion to request the MPO to write a request that the School District pursue an education initiative. Seconded by* ***Mr. Sutton****. Carried unanimously.*

6. Agency Updates

A. FDOT

Ms. Merkle mentioned that she is filtering through the last of the SUN Trail applications before they go to Central Office. Regarding the Collier to Polk Trail, FDOT is in the process of retaining consultants for the Project Development and Environment study. It's being done in three segments.

Mr. Bonness asked about the 16 bicycle fatalities mentioned last meeting and asked what types of bikes were used. He then asked if FDOT was strategizing any public education to address the fatalities.

Ms. Merkle answered saying she would investigate it.

B. MPO

Mr. Kingston reported that the plans that are in process, the Long Range Plan, Comprehensive Safety Action Plan, Bicycle and Pedestrian Master Plan, and Transit Development Plan continue to develop. The second round of tribal meetings will be occurring with Miccosukee Tribe on April 2 and Seminole Tribe of Florida on April 8. The joint meeting with Lee MPO's Bicycle and Pedestrian Coordinating Committee is coming up on April 22 to replace the regularly scheduled BPAC in April as outlined in this agenda packet. He requested to hear what ideas for items the Committee would like to bring to that meeting. Ron Gogoi, Principal Planner from Lee MPO and he have brought together some topics, including micromobility, the current projects that are in the neighboring area between Lee and Collier Counties, the

highlights in the BPMP developments, and an FDOT update. There was also a compelling presentation on the major developments of the RSW Airport at the recent Lee Transportation Management and Operations Committee which could be requested to be presented again by Ian Sikonia of the Lee County Port Authority. Are there any suggestions to bring to this meeting?

Mr. Bonness recommended the SUN Trail addition or connection from Shady Hollow Boulevard to Bonita Beach Road, going through the CREW lands to connect to the Imperial Bike Trails. It connects Corkscrew across the Imperial River Flow way. It would be an elevated or bridged pathway. They have about a half mile of elevated boardwalk. He mentioned he brought this up at the last BPAC to be added to the BPMP Needs.

Council Member Schwan announced at last Friday's MPO meeting that the Commissioners decided to put the ebike ordinance on the Board of County Commissioners agenda, to ask law enforcement to attend that meeting to address the enforcement issues. She recommended attendance from BPAC at this to provide testimony.

Mr. Matonti asked if there could be a theme for the joint meeting. It looks by the sound of it that it is generally just "growth." Even though it is a BPAC meeting, it would help to hear something different from the airport. It would give a good perspective of how much growth is occurring in Southwest Florida. He recalled how with international flights from Germany coming to the Tampa airport there was a large influx of riders going to the trails. It could pull in something that we wouldn't realize that it would. *A group discussion about bicycle tourism ensued.*

Ms. Sproviero asked about an update on the Bonita-Estero Rail Trail (BERT). Is funding coming? Are grants being written? This could be on the agenda.

Ms. Avola-Brown mentioned she could give a legislative update on Hands-Free. The legislative session is happening now. The next BERT meeting is next Wednesday March 26 at Bonita-Estero Elks Club.

Mr. Matonti recommended bringing what reports are available on ebike regulations.

Ms. Merkle replied to Mr. Matonti's comment on regulation that where FDOT is responsible for construction, local governments are responsible for maintenance and enforcement, implying local governments to be the best source for this request.

Mr. Komanecky commented that it would be interesting to see the realities of enforcement, how it is commencing and how to give guidance for other communities to take that on.

Ms. Huff remarked that education needs to be considered, especially considering the recent death of a 14-year-old child on an ebike. It may be that kids don't understand how powerful these bikes are. They're not even driving yet and they're out with the ebikes doing what would be done in a vehicle.

7. Committee Action

A. Bicycle & Pedestrian Master Plan (BPMP) – Review and Comment on Draft Plan – Continued from February meeting

Mr. Kingston gave a briefing on the status of the drafting of the BPMP. This same item was presented to the BPAC at their February meeting and has continued to give the Committee additional time

for review. This is the final review of the first draft before the final draft is brought to the Committee for their review in May. Capital is here to provide a presentation on the comments received last meeting and the changes they propose to address them. ***Mr. Arfuso*** *provided the presentation as enclosed in the meeting materials and answered questions the Committee posed.*

When presenting the slide on changes to Priority Projects for Everglades City, **Ms. Huff** commented that McLeod park is spelled with a capital "L." **Mr. Arfuso** acknowledged that he would make the change.

The Committee agreed to accept the Option 1 change to the Local Projects Scoring Matrix, introducing a new Education category worth 10 points and reassigning 5 points to Safety. The Committee agreed to accept the Option 1 change to the Regional Projects Scoring Matrix, introducing a Feasibility criterion worth 10 points and reassigning 5 points to Safety. **Ms. Sproviero** proposed to add text to the Multimodal criteria to include accommodations for underserved populations. **Mr. Vigorito** supported her suggestion, along the lines of recommending "every effort will be made to eliminate barriers and enhance ADA accessibility to promote inclusivity for all individuals of all abilities." **Mr. Arfuso** agreed to rework the Multimodal Connections Criteria to acknowledge these comments. **Mr. Komanecky** proposed to add to the goal of Efficiency, to reduce congestion. **Ms. Sproviero** concurred. Mr. Arfuso acknowledged to rework the document to include this proposal.

8. Reports & Presentations (May Require Committee Action)

None.

9. Member Comments

Ms. Huff announced the Office of Greenways and Trails meeting is in Everglades City on April 10 and 11. **Mr. Phelan** asked to have safety data brought to either the joint or May meeting. **Ms. Merkle** answered that the data from Signal 4 may not specify if the data will separate the different users being affected and that she would look into it. **Mr. Kingston** answered that the Comprehensive Safety Plan is being developed with data analysis and it may be appropriate for a joint meeting topic.

10. Distribution Items

A. County Attorney Memo on Florida E-Bike Laws and Ordinances

11. Topics for Next Meeting

12. Next Meeting Date

Joint Meeting with Lee County MPO's Bicycle and Pedestrian Coordinating Committee

April 22, 2025 *– 10:00 a.m.* ***Location****: Collier County Government Services Center at Heritage Bay Meeting Room, 15450 Collier Boulevard, Naples, FL 34120*

13. Adjournment

Mr. Matonti adjourned the meeting at 10:36 a.m.

JOINT COLLIER AND LEE MPO
BICYCLE & PEDESTRIAN ADVISORY/COORDINATING COMMITTEE WORKSHOP
Collier County Government Services Center at Heritage Bay Meeting Room
15450 Collier Boulevard, Naples, FL 34120
April 22, 2025, 10:00 a.m.

Meeting Minutes

Agenda Item #1 - Call to Order/Roll Call

The in-person meeting was called to order at approximately 10:00 a.m. by BPAC Chair Anthony Matonti.

MPO staff recorded the roll as those in attendance introduced themselves. There was a quorum. Those in attendance included:

From the Collier BPAC

Anthony Matonti (Chair)	At-Large
Michelle Sproviero	At-Large
Al Musico	At-Large
Joe Bonness	At-Large
Kevin Dohm	At-Large
Mark Komanecky	At-Large
Robert Vigorito	At-Large
Dayna Fendrick	At-Large
Patty Huff	At-Large
David Sutton	At-Large

From the Lee BPCC

Carl Karakos	City of Fort Myers
Charles Mills	Cape Coral Police Department
David Wheaton	At-Large
Jim Meyer	City of Sanibel
Robert Imel	FHP
Scott Stryker	Village of Estero
Sean Gibbons	City of Bonita Springs
Simone Behr	Lee County Visitor and Convention Bureau
Thomas Marquardt	Lee County Department of Transportation

Others in attendance included Sean Kingston and Suzanne Miceli with the Collier MPO; Don Scott and Ron Gogoi with the Lee County MPO; Michelle Avola Brown with *Naples Pathways Coalition*; Kathy Eastley with Collier County Transportation Planning; Tanya Merkle with FDOT; Deb Orton with *Friends of BERT*; Frank Dirolf with Tarpon Cove Community at Wiggins Pass; Eric Tracey - Bonita Springs Village visitor.

Agenda Item #2 - Pledge of Allegiance

The Pledge of Allegiance was recited.

Agenda Item #3 - Election of a Chairperson

Ms. Sproviero made the motion to elect Collier MPO's BPAC Chair Anthony Matonti to chair the workshop. Mr. Musico seconded the motion. There were no objections, and the motion passed.

Agenda Item #4 - Public Comments on Items on the Agenda

There were no public comments on items on the agenda.

Agenda Item #5 - Approval of Agenda

Ms. Komanecky made the motion to approve the agenda. Mr. Sutton seconded the motion. There were no objections, and the motion passed.

Agenda Item #6 - Florida Department of Transportation

Ms. Merkle announced that SUNTrail project applications had been received by Central Office and that funding would be available for the upcoming fiscal year. The Collier to Polk Regional Trail project was under way.

Funding was available under the Non-Motorized Traffic Monitoring program for counters for the SUNTrail Network - 275 count sites, 259 of which will be on the SUNTrail. Counters will be able to differentiate between scooters, bicyclists, and pedestrians.

6 counters had been installed in Lee County and 4 in Collier County. There are 33 proposed sites in Collier, 20 of which have been evaluated and 6 proposed sites in Lee, 6 of which have been evaluated. FDOT is working to accommodate everyone with additional funds through these counters.

For safety, looking to see how people are responding to and what usage is like for rapid flashing beacons in Immokalee and are placing in some mid-block crossings on SR 82. There is a PD&E for the Livingston SUN Trail alignment at Radio Road and are commencing negotiations with Florida Power and Light regarding siting on their easement.

Agenda Item #7 - Reports and Presentations

A. Shared-Use Nonmotorized (SUN) Trail Project Updates

Mr. Kingston presented the SUN Trail Network in Collier County including the Collier to Polk and the Gulf Coast Trails. Mr. Gogoi presented the same for Lee County, also including two regional trail networks including the Gulf Coast and Caloosahatchee Sugar Trails. Both gave project phase status for each and for segments within. Mr. Karakos added an update to project commencement within the Lee County MPO presentation. Discussions arose regarding various projects within the network. Mr. Stryker reminded the Committee that SUN Trail is intended to be an off-road trail and to be beside the road as a last resort. It is to be funded, billed, and managed primarily by local government, not with State SUN Trail dollars which are intended to connect its gaps where possible. Mr. Gogoi mentioned that Mr. Stryker is a member of the Florida Greenways and Trails Council. Their presentations can be viewed at the following link: SUN Trail

B. Bonita-Estero Rail Trail (BERT) Update

BERT is a proposed 14.9-mile-long trail along the Seminole Gulf Rail Corridor within the SUN Trail Network between Lee and Collier Counties. Ms. Orton gave a presentation on BERT's administrative and funding progress and project development. Committee members had comments and questions of which Ms. Orton contributed her answers to. She also provided booklets on BERT. Her presentation is available at the following link: BERT

C. Local Micromobility Regulation Updates

Mr. Kingston reported on how Collier County had proposed an amendment to the Pedestrian Safety Ordinance with Board action scheduled to take place on April 22nd, at the same time as this Committee being held. An amendment to this Ordinance was formerly presented to the Collier BPAC in 2023 with the MPO Board choosing not to pursue it that April. Ms. Eastley announced that the Ordinance had been approved with some changes. Mr. Kingston reviewed the highlights of the ordinance as attached in the agenda. A discussion arose about adopting ordinances especially related to micromobility in their own communities, their enforcement, and education.

Mr. Gogoi provided a presentation about local micromobility ordinances, regulation, and the launching of the SPIN micromobility program in Lee County. A discussion arose regarding how these are being responded to and implemented. His presentation is available at the following link: Lee County micromobility regulation update

D. Legislative Updates

Michelle Avola-Brown gave a presentation Hands Free Florida on the State's legislative efforts toward preventing distracted driving. Her presentation is available at the following link: Hands-Free Florida

Ms. Scott gave a presentation with an update of the proposed 2025 State transportation-related legislation. His presentation is available at the following link: Legislative Bills

Agenda Item #8 - Members' Comments

Ms. Huff said the Florida Greenways and Trails Council (FGTC) and Friends of BERT visited Everglades City April 10 and 11 to provide a presentation because it is considered a Trail Town. Ms. Huff encouraged other jurisdictions to apply for the status. Mr. Stryker concurred, elaborating on their benefits.

Led by Mr. Bonness, a group discussion arose about the height of bridges along SUN Trail.

Agenda Item #9 - Information Items

A. Deletions of bicycle and pedestrian projects in the TIP from the elimination of CARU/CARB funds

Mr. Kingston presented how FDOT removed Carbon Reduction funding from the Transportation Improvement Programs (TIPs) and described which projects were affected by this, how the funds were reallocated to some projects and which projects were removed. Mr. Gogoi shared the same for projects in Lee County. Their presentation is available at the following link: CARB Elimination

B. RSW Terminal Expansion Simulation Video

Mr. Gogoi gave a presentation on the RSW terminal expansion which included a video shown within the presentation. The presentation is available at the following link: RSW Terminal Expansion

Agenda Item #10 - Adjournment of Joint BPCC Workshop

Mr. Scott Stryker made a motion to adjourn the meeting and Chair Anthony Matonti seconded the motion at approximately 12:31 p.m.

An audio recording of the meeting can be accessed at the following link: Joint BPAC/BPCC April 22

All meetings of the Joint Lee County and Collier County MPO BPCC are open to the public and citizen input is encouraged. Any person wishing to speak on any scheduled item may do so upon recognition by the Chairperson. In accordance with the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting should contact **Ms. Calandra Barraco at the Lee County MPO** at (239) 330-2243; or **Ms. Suzanne Miceli at the Collier County MPO** at (239) 252-5814, 48 hours prior to the meeting; if you are hearing or speech impaired, call (800) 955-8770 Voice (800) 955-8771 TDD. Or, e-mail cbarraco@leempo.com or Suzanne.Miceli@colliercountyfl.gov

The MPO's planning process is conducted in accordance with Title VI of the Civil Rights Act of 1964 and Related Statutes. Any person or beneficiary who believes that within the MPO's planning process they have been discriminated against because of race, color, religion, sex, age, national origin, disability, or familial status may file a complaint with either the Lee County MPO Title VI Coordinator Calandra Barraco at (239) 330-2243 or by writing Ms. Barraco at P.O. Box 150045, Cape Coral, Florida 33915-0045 or the Collier MPO Title VI Coordinator, Ms. Suzanne Miceli at (239) 252-5814 or by writing Ms. Miceli at 2885 South Horseshoe Dr., Naples, Florida 34104.

Any person who decides to appeal a decision of this committee will need a record of the proceedings pertaining thereto, and therefore may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

EXECUTIVE SUMMARY
COMMITTEE ACTION
ITEM 7A

Bicycle and Pedestrian Master Plan (BPMP) – Review and Comment on Final Draft

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OBJECTIVE: For the committee to review and comment on the BPMP final draft.

CONSIDERATIONS: Capital has prepared a PowerPoint presentation on the final draft of the BPMP included as **Attachment 1**. The final draft for your review and comment is included as **Attachment 2**. Collier County Transportation Planning staff are currently in the process of reviewing and providing comments.

Next Steps:

Meeting Date	Meeting Body	Member action or presentation (where member action may not be required)
8/25/25	Technical and Citizens Advisory Committees (TAC & CAC)	Review and comment
9/12/25	MPO Board	Review and comment
9/16/25	Bicycle and Pedestrian Advisory Committee (BPAC)	Endorsement
9/17/25	Congestion Management Committee (CMC)	Presentation to committee
9/22/25	Technical and Citizens Advisory Committees (TAC & CAC)	Endorsement
10/10/25	MPO Board	Adoption

STAFF RECOMMENDATION: Provided for committee review and comment.

Prepared By: Sean Kingston, AICP, PMP, CFM, Principal Planner

ATTACHMENTS:

1) Capital Solutions August 19, 2025 Presentation to BPAC
2) BPMP final draft

COLLIER MPO
BICYCLE-PEDESTRIAN MASTER PLAN
2025 FINAL DRAFT

REVISIONS AND UPDATES
BPAC MEETING AUGUST 19TH

CAPITAL

Collier MPO
BICYCLE-PEDESTRIAN
MASTER PLAN 2025

March 18TH BPAC Recap

Summary of Proposed Draft Plan Revisions

- Updated street and park names in Everglades City
- Revised the definition of a shared use path
- Reviewed two options to modify the **Local Project Scoring Matrix**
  - The committee approved **Option 1**: Added 5 points to the Safety criterion and replaced the Equity category with a new **Education** category
- Reviewed two options to modify the **Regional Project Scoring Matrix**
  - The committee approved **Option 1**: Added 5 points to Safety and replaced the Equity category with a new **Feasibility** category
- Discussed updating the Plan's Goals by removing **Equity** and **Environment** and replacing them with **Education** and **Efficiency**

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Collier MPO
BICYCLE-PEDESTRIAN
MASTER PLAN 2025

What's New in the BPMP Draft Plan

Master Plan Goals

- The **Safety** goal strategy has been revised to align with County policy on traffic calming, emphasizing **Education and Enforcement** as initial steps before implementing engineered solutions.
- The **Education** goal has been added, replacing the previous **Equity** goal, as discussed during the March BPAC meeting.
- The **Efficiency** goal has been introduced in place of the former **Environment** goal, reflecting the discussion from the March BPAC meeting.
    - These changes were made with consideration of **congestion** and **mode shift**, based on feedback from BPAC and public comments.

No Changes Updated Changes

Goal	Strategy
Safety	Promote education and enforcement as the primary strategies, followed by engineering solutions, to enhance safety for cyclists, pedestrians, and micromobility users.
Connectivity	Develop a seamless network that connects key points of interest, ensuring accessibility and ease of use for all modes of transportation.
Economy	Develop bicycle-pedestrian facilities to support local businesses, attract tourists, and provide affordable transportation options, contributing to economic growth and community vitality.
Education	**Promote awareness, responsible use, and understanding of bicycle and pedestrian facilities through educational programs, outreach efforts, and community engagement, empowering users with the knowledge to navigate the network confidently and effectively.**
Efficiency	**Support the design, implementation, and ongoing maintenance of bicycle and pedestrian facilities that encourage shifts in travel behavior, reduce dependence on motor vehicles, and alleviate roadway congestion by promoting walking and biking as preferred modes of transportation.**
Health	Design pathways that encourage active transportation and support public health initiatives.
Interactive Map	Create and maintain a continuously updated, interactive map that is accessible for cyclists and pedestrians to download and share, serving as a valuable resource for navigation and planning.

What's New in the BPMP Draft Plan

Table: Vehicle Availability, Income, Means of Transportation to Work

Area	Occupied Housing Units with No Vehicles Available (Source – 2023 ACS)	Mean Travel Time to Work (Minutes), Workers Age 16+ (2019–2023)	Percent of Population Who Walk, Bike, or Use Public Transportation to Commute to Work	Persons in Poverty[3]	Mean (Average) Per Capita Income in Past 12 Months (in 2023 Dollars), 2019–2023[3]	Median Household Income (in 2023 Dollars), 2019–2023[3]
Florida	5.9%	28.0	3.4%	12.3%	$41,055	$71,711
Collier County	4.5%	25.4	3.5%	10.5%	$59,973	$86,173
Everglades City	5.5%	29.0[3]	5.9%	5.3%	$45,958	$75,163
Marco Island	2.9%	23.7	4.5%	6.3%	$97,179	$104,105
Naples	5.1%	22.3	3.6%	7.1%	$151,564	$140,833
Golden Gate CDP	8.2%	22.9	1.4%	12.9%	$25,843	$64,767
Immokalee CDP	19.0%	35.5	4.6%	24.9%	$18,694	$46,143
Naples Manor CDP	7.7%	21.0	4.0%	18.2%	$22,388	$63,142

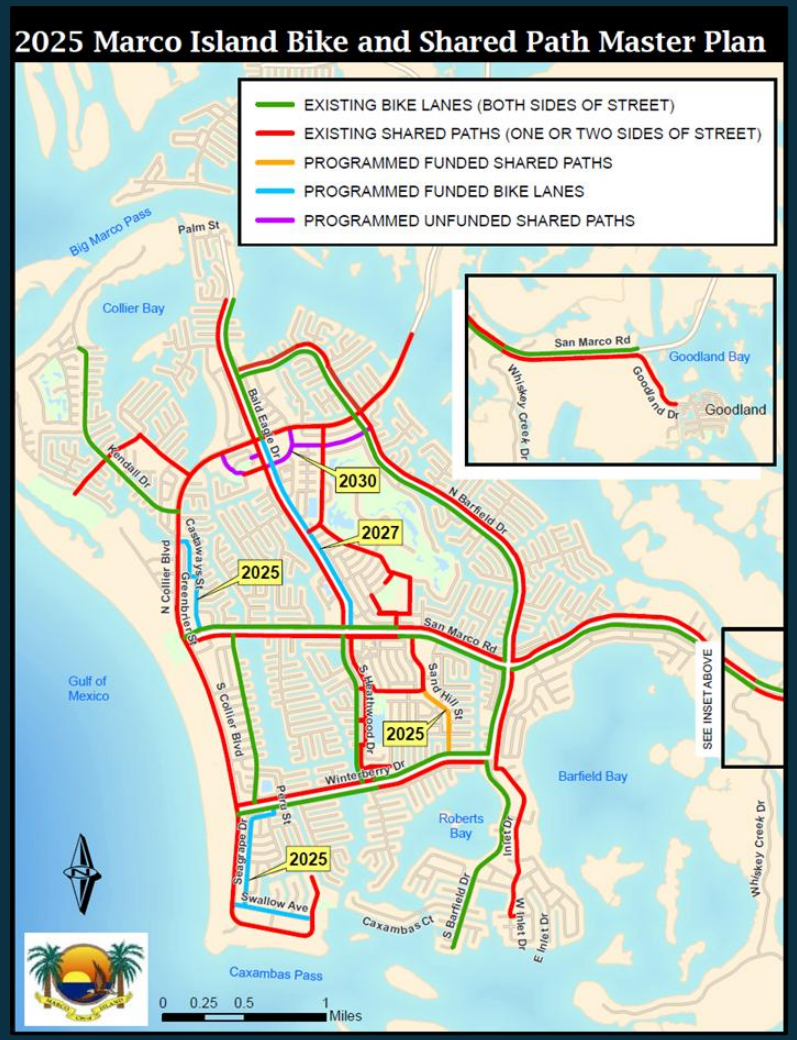
- With support from MPO staff, the population and demographic statistics have been updated to more accurately reflect underrepresented areas such as Everglades City, Immokalee, and Golden Gate.

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Collier MPO BICYCLE-PEDESTRIAN MASTER PLAN 2025

What's New in the BPMP Draft Plan

Priority Projects: Updated Marco Island Map & Projects



- Following concerns raised at the previous BPAC meeting about a potential update to the Bike and Shared Use Path Map, the City of Marco Island was contacted. The updated **2025 map** has been obtained and incorporated into the plan. As a result, the **Priority Projects** section of the BPMP has been revised to reflect the updated map.

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Collier MPO
BICYCLE-PEDESTRIAN
MASTER PLAN 2025

What's New in the BPMP Draft Plan

Evaluation Criteria: Local Projects Criteria Descriptions and Weight (%)

- Increased the ***Cost*** weight percentage from **15% to 20%** in response to a TAC comment, aligning it more closely with the Cost weighting in the Regional Scoring Matrix
- Reduced the ***Multimodal and Regional Connection*** criterion by **5%** to accommodate the increase in the ***Cost*** weight
- TAC expressed concern that the Cost should carry at least as much weight as in the Regional Matrix, since outside sources like Regional Projects do not fund Local Projects

Criteria	Weight (%)	Description
Safety	35	Evaluates the project's potential to enhance safety for all users. This includes the analysis of high-risk areas using crash data and fatality statistics, the implementation of Safe Routes to Schools, the incorporation of targeted safety improvements, the adoption of a Safe System Approach, and the inclusion of public education initiatives aimed at promoting safe behaviors.
Multimodal and Regional Connections	20	Assesses the project's integration with other modes of transportation (e.g., transit, biking, walking) and its ability to enhance regional connectivity. Projects that create seamless links between different transportation modes, improve regional mobility, and demonstrate a commitment to eliminating barriers and enhancing ADA accessibility to promote inclusivity for all individuals and abilities will score higher.
Cost	20	Evaluates the financial feasibility of the project, including both initial construction costs, long-term maintenance expenses, and the cost per capita. Projects that demonstrate cost-effectiveness, efficient use of available funds, and provide a reasonable cost per person impacted will score higher.
Education	10	Evaluates the efforts to educate and engage the community regarding bicycle and pedestrian safety, benefits, and infrastructure. Projects that incorporate educational programs, workshops, outreach efforts, or materials promoting safe and sustainable transportation practices will be considered. Consideration will also be given to initiatives that partner with local schools, organizations, and other stakeholders to raise awareness and foster a culture of safety
Public Involvement and Support	5	Evaluates the level of community engagement and support for the project. Projects with strong public involvement, transparent processes, and demonstrated community backing will receive higher scores.
Micromobility	5	Evaluates the project's support for micromobility options such as electric scooters, e-bikes, and other small, lightweight, and low-speed personal transportation devices designed for use on bike lanes or multi-use paths. Projects that integrate infrastructure, connections, and policies to encourage safe, sustainable, and space-efficient micromobility use will score higher.
Economic Development	5	Assesses the project's potential to stimulate economic growth, revitalize communities, and attract tourism. Projects that demonstrate clear economic benefits and support local revitalization efforts will score higher.

What's New in the BPMP Draft Plan

Evaluation Criteria: Local Projects Scoring System

Education

- Proposed improvement includes no formal education component or only minimal effort (e.g., sign or brochure) with no community engagement or partnerships – **1 Point**
- Proposed improvement incorporates a defined educational activity (e.g., workshop, campaign, or materials) and some level of community or stakeholder engagement, such as outreach to schools or local groups – **3 Points**
- Proposed improvement features a comprehensive and sustained education strategy with multiple outreach methods and strong partnerships with schools, organizations, or agencies to promote lasting culture of bicycle and pedestrian safety – **5 Points**

- Introduced a **new scoring system** for the **Education** criterion in Local Projects, which replaces the former **Equity** category
- The new criterion and its description were presented at the last BPAC meeting
- Point values will be assigned using **three scoring options** to evaluate Education-related elements

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Collier MPO BICYCLE-PEDESTRIAN MASTER PLAN 2025

What's New in the BPMP Draft Plan

Evaluation Criteria: Regional Projects Scoring System

Feasibility

- Proposed improvement has major technical challenges (e.g., difficult terrain or significant infrastructure conflicts), an unrealistic or unverified budget (±50% or more of similar projects), lacks defined timeline, and/or faces uncertain or unlikely permitting and approval pathways – **1 Point**

- Proposed improvement has some technical or logistical constraints (e.g., utility conflicts, constrained right-of-way), a budget estimate within ±25% of similar projects, an achievable 3–5-year timeline, and moderately complex but likely permitting requirements – **3 Points**

- Proposed improvement has minimal physical or regulatory obstacles, a realistic and well-documented budget (within ±15% of similar projects), a clear timeline for completion within 1–3 years, and high confidence in timely permitting and agency approvals – **5 Points**

- Introduced a **new scoring system** for the **Feasibility** criterion in Regional Projects, which replaces the former **Equity** category

- The new criterion and its description were presented at the last BPAC meeting

- Point values will be assigned using **three scoring options** to evaluate feasibility

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Collier MPO BICYCLE-PEDESTRIAN MASTER PLAN 2025

Creating the Final Draft Plan

Plan Updates During May through July

- New cover and end cover designs implemented
- Table of Contents, List of Figures, Tables, and Exhibits now included
- Acknowledgments section completed (includes MPO Board, BPAC, TAC, and CAC members)
- Executive Summary added
- Finalized all public comment statistics (surveys, interactive map, public workshop)
- Integrated HIN intersections and corridors from the CSAP into the Safety and Evaluation Criteria sections
- Conducted additional gap analysis for transit-dependent areas
- Infographics incorporated throughout the plan to highlight key information
- Performed comprehensive formatting and document clean-up



Plan Submitted to MPO Staff for Review on July 28th

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BICYCLE-PEDESTRIAN
MASTER PLAN 2025

Integration of the High Injury Network (HIN)

Incorporating the CSAP HIN Into the BPMP

High Injury Network (HIN) Integration

As part of the Collier MPO Safety Action Plan (SAP), the High Injury Network (HIN) identifies the top 20% of roadway segments and intersections with the highest rates of fatal and serious injury crashes involving bicyclists and pedestrians.

This network includes:

- 103.5 miles of roadway and 48 intersections
- 46% of all bike/ped KSI crashes occur on just 3.8% of roadways
- Tier I captures 30% of KSI crashes on only 0.6% of road mileage

Purpose in the BPMP

The HIN is fully integrated into the Bicycle & Pedestrian Master Plan (BPMP) to:

- Prioritize safety improvements on high-risk corridors
- Target limited resources for the greatest impact
- Inform project scoring: Proposed projects on or benefiting Tier I/II HIN segments are assigned higher evaluation scores
- Align with federal funding opportunities like the Safe Streets and Roads for All (SS4A) program

A full HIN analysis is available in the Collier MPO SS4A Safety Action Plan.

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BICYCLE-PEDESTRIAN
MASTER PLAN 2025

Integration of the High Injury Network (HIN)

Bicycle and Pedestrian HIN Tier I Roadway Segments

Segment Name	Segment Start	Segment End	Planning Community	Miles	Bicycle & Pedestrian KSI	Rank
Tamiami Trl	Bayshore Dr	Airport-Pulling Rd S	East Naples	0.25	5	1
W Main St	N 9th St	N 1st St	Immokalee	0.45	6	2
Airport-Pulling Rd S	Estey Ave	North Rd	East Naples	0.21	2	3
Pine Ridge Rd	I-75 West Ramp	I-75 East Ramp	Urban Estates	0.13	1	4
E Main St	N 1st St	New Market Rd E	Immokalee	0.35	1	5
S 1st St	Stockade Rd	Main St	Immokalee	1.47	4	6
Pine Ridge Rd	I-75 E Onramp	Napa Blvd	Urban Estates	0.19	1	7
5th Ave S	9th St S	S Goodlette Frank Rd	City of Naples	0.2	1	8
Airport-Pulling Rd S	Davis Blvd	Estey Ave	East Naples	0.2	1	9
Bayshore Dr	Thomasson Dr	Tamiani Trl	East Naples	1.37	3	10
Pine Ridge Rd	Livingston Rd	Whippoorwill Ln	Urban Estates	0.43	2	11
State Road 29 N	New Market Rd W	Johnson Rd	Corkscrew	1.97	3	12
Grand Lely Dr	Lely Resort Blvd	Collier Blvd	South Naples	0.67	1	13
Tamiami Trl	Granada Blvd	Pine Ridge Rd	Central Naples	0.51	2	14
Orange Bossom Dr	N Airport Rd	Livingston Rd	North Naples	0.96	1	15
Green Blvd	Logan Blvd S	Collier Blvd	Golden Gate	1.95	2	16
Golden Gate Pkwy	Tamiami Trl	Tamiami Trl	City of Naples	0.18	1	17
Tamiami Trl	St Andrews Blvd	Broward St	South Naples	1.25	4	18
Vineyards Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Urban Estates	2.42	1	19

Bicycle and Pedestrian HIN Tier I Intersections

Location	Planning Community	KSI	Rank
Pulling Rd & Tamiami Trl	East Naples	2	1
Pelican Bay Blvd & Tamiami Trl	North Naples	2	2
Radio Rd & Livingston Rd	East Naples	1	3
Kendall Dr & N Collier Blvd	City of Marco	1	4
Vanderbilt Beach Rd & N Goodlette Frank Rd	North Naples	1	5
Davis Blvd & Airport-Pulling Rd S	East Naples	1	6
Immokalee Rd & Strand Blvd	Urban Estates	1	7
Tamiami Trl & Whistlers Cove Blvd	South Naples	1	8
Tamiami Trl & Broward St	South Naples	1	9
Tamiami Trl & Lakewood Blvd	East Naples	1	10
Tamiami Trl & Espinal Blvd	East Naples	1	11
Davis Blvd & Shadowlawn Dr	East Naples	1	12
Neapolitan Way & Tamiami Trl	City of Naples	1	13
New Market Rd W & Charlotte St	Immokalee	1	14
State Road 29 S & Farm Worker Way	Immokalee	1	15
Lake Trafford Rd & State Road 29 N	Immokalee	1	16
Main St & 1st St	Immokalee	1	17
Isle of Capri Blvd & Collier Blvd	Royal Fakapalm	1	18
Radio Rd & Industrial Blvd	East Naples	1	19

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Integration of the High Injury Network (HIN)

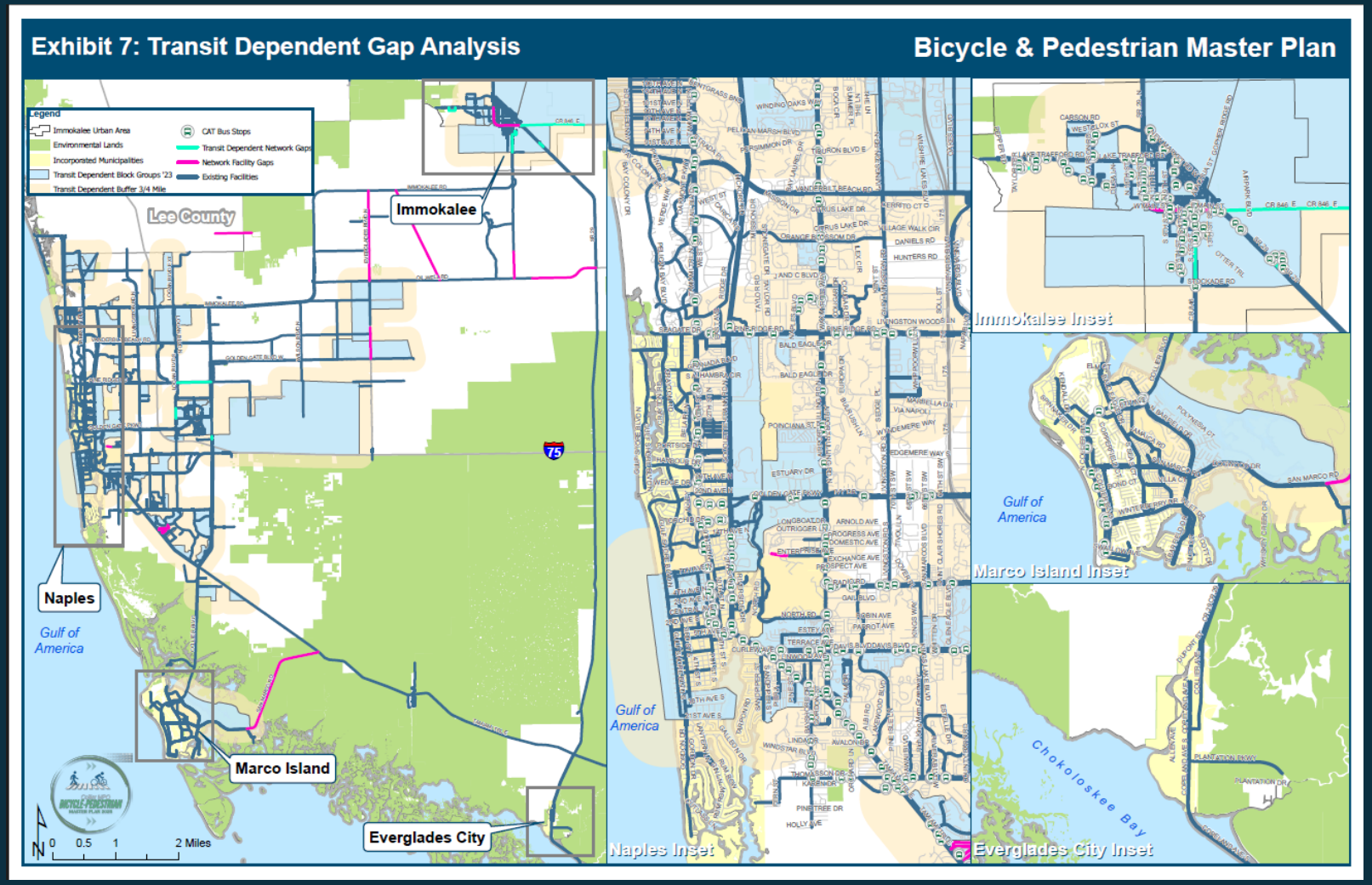
How Will This Influence Project Scoring and Implementation?

- *New Addition to the Local Project Evaluation – Safety Criterion*
- *A Bonus Scoring opportunity has been added to the existing four safety-related scoring categories.*
- *Projects that meet the criteria below will automatically receive **6 Points** under the Safety Category:*
- *" Proposed Improvement is located on a street segment or intersection identified in the High Injury Network (HIN) from the Collier MPO Comprehensive Safety Action Plan, as outlined in Section 2: Crash Analysis and Safety Focus of this Bicycle and Pedestrian Master Plan."*

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BICYCLE-PEDESTRIAN
MASTER PLAN 2025

Transit Dependent Gap Analysis



Map Objective

To identify bicycle and pedestrian facility gaps within areas of influence and near transit stop locations. Gaps were defined as locations with no existing facilities or only a paved shoulder.

Map Layers:

- ACS 2023 Transit Dependent Block Groups*
- ¾-Mile Buffer Areas
- Transit Stop Locations
- Transit Dependent Gaps – *Cyan*
- Identified Network Facility Gaps – *Pink*
- Bike-Ped Facilities *(Existing, Planned, and Programmed)* – *Dark Blue*

** Block groups where the percentage of households without a vehicle exceeds the county average of 3.75% were identified as transit-dependent. This was calculated by dividing the number of zero-vehicle households by the total number of households.*

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BICYCLE-PEDESTRIAN
MASTER PLAN 2025

Next Steps in the BPMP Master Plan

- Final Draft of the BPMP Presented and Brought to the Following Committees:
  - BPAC –August 19th
  - Technical Advisory Committee (TAC) & Citizens Advisory Committee (CAC) – August 25th
  - MPO Board – September 12th
  - Congestion Management Committee (CMC) – September 17th
  - MPO Board - October 10th (Plan Adoption)



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BPMP Latest Draft Plan



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COLLIER
Metropolitan Planning Organization

7A Attachment 2
BPAC 8/19/25



2025

COLLIER MPO BICYCLE PEDESTRIAN MASTER PLAN

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ACKNOWLEDGEMENTS

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Commissioner Burt Saunders – District 3

Commissioner Chris Hall – District 2

Commissioner Rick LoCastro – District 1

Commissioner William L. McDaniel, Jr. – District 5

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Dennis DiDonna – At-Large

Becky Irwin – District I

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Misty Phillips – Representative for Persons with Disabilities

Harry Henkel – Everglades City

Kevin Dohm – City of Marco Island

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EXECUTIVE SUMMARY

The 2025 Collier Metropolitan Planning Organization (MPO) Bicycle and Pedestrian Master Plan provides a strategic framework to expand and improve active transportation infrastructure and guide future funding decisions across Collier County. Building on previous efforts, the plan aims to create a safer, more connected, and accessible network for pedestrians, cyclists, and micromobility users. It emphasizes regional connectivity, supports sustainable travel options, and aligns with local, state, and federal goals to improve mobility and quality of life.

Developed over nearly two years with extensive public engagement and collaboration among advisory committees, local agencies, and tribal nations, the plan advances prior mapping efforts by identifying additional network gaps and incorporating future planned improvements. It introduces two distinct scoring criteria to evaluate and prioritize local and regional projects, helping ensure that investments reflect community needs and strategic objectives. A data driven focus on safety includes detailed crash analysis and highlights high injury corridors identified in the MPO's Safety Action Plan. Public input emphasized the need for protected bike lanes, shared-use paths, lighting, shade, and improved maintenance priorities that are central to the plan's recommendations.

To support future implementation and unlock funding opportunities, the plan aligns with the statewide SUN Trail network and federal initiatives such as the Safe Streets for All program. It establishes clear goals and prioritization strategies to guide coordinated, long-term investment in bicycle and pedestrian infrastructure throughout the region.

INTRODUCTION

The 2025 Collier MPO Bicycle-Pedestrian Master Plan builds upon a longstanding commitment to improving active transportation infrastructure within Collier County. Since its inception, the Collier MPO has prioritized creating a safer and more connected network for bicyclists and pedestrians. Past iterations of the Bicycle-Pedestrian Master Plan laid the foundation for many successful projects, addressing critical safety needs, filling infrastructure gaps, and promoting alternative transportation options. These efforts have played a vital role in fostering a community that supports healthy, active lifestyles while reducing reliance on motor vehicles.

This 2025 plan represents the next chapter in that ongoing effort, advancing the goals of previous plans while responding to evolving needs, emerging trends, and new opportunities. It builds on the successes of past projects by refining strategies, identifying new priorities, and incorporating innovative tools and technologies to enhance mobility for all. By addressing key challenges such as safety, connectivity, and equity, this plan ensures that Collier County can continue to grow as a model for active transportation in Southwest Florida.

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Through nearly two years of planning, collaboration, and public engagement, this updated Master Plan serves as a comprehensive guide for future improvements. It reflects the collective vision of local stakeholders, state and tribal partners, the Bicycle-Pedestrian Advisory Committee, and the broader community. With a focus on inclusivity and sustainability, the 2025 Bicycle-Pedestrian Master Plan will help Collier County achieve its goal of a safer, more accessible, and interconnected transportation network for generations to come.

PURPOSE

The purpose of the Bicycle-Pedestrian Master Plan is to create a comprehensive framework that continuously improves and builds upon prior efforts to enhance the safety, accessibility, and connectivity of bicycle and pedestrian infrastructure throughout the region. This plan aims to promote active transportation options, reduce reliance on single-occupancy vehicles, and foster healthier, more sustainable communities. By addressing the evolving needs of residents and visitors, the plan seeks to facilitate safe and efficient mobility for all users, including pedestrians, cyclists, and those utilizing micromobility options. The Master Plan is not intended to conflict or supplant other existing local plans or ongoing projects but to unify planning efforts and influence facility improvement priorities countywide.

The Master Plan serves as a strategic guide for local governments, stakeholders, and community members to collaboratively prioritize investments in infrastructure, encourage public engagement, and ensure equitable access to transportation resources. Through ongoing assessment and community input, this plan will adapt to changing conditions and best practices, ensuring that our efforts align with the broader goals of environmental sustainability, public health, and economic vitality.

VISION

The Vision of the Plan was crafted through extensive collaboration and input from the Bicycle-Pedestrian Advisory Committee (BPAC), stakeholders, and MPO staff, and was ultimately approved and adopted by the MPO Board. It emphasizes the safety and connectivity of active transportation facilities to encourage the use of alternative modes of transportation, enhancing the overall well-being of the community and regional connectivity.

"To create a safe and connected network of active

transportation facilities in Collier County that promotes

and encourages the use of bicycle and pedestrian

pathways which support business and recreation

for community access and well-being."

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GOALS AND STRATEGIES

Building on the goals and strategies outlined in the 2019 plan, these updated strategies maintain similar objectives related to Safety, Connectivity, Economy, Equity, and Health, but have been refined to address the current needs and challenges facing the region. Through extensive discussions and guidance from the Bicycle-Pedestrian Advisory Committee (BPAC), the strategies to achieve these goals were developed by incorporating their input and concerns. Additionally, enhancing the Environment and integrating an Interactive Map have emerged as key goals for this plan.

Goal	Strategy
Safety	Promote education and enforcement as the primary strategies, followed by engineering solutions, to enhance safety for cyclists, pedestrians, and micromobility users.
Connectivity	Develop a seamless network that connects key points of interest, ensuring accessibility and ease of use for all modes of transportation.
Economy	Develop bicycle-pedestrian facilities to support local businesses, attract tourists, and provide affordable transportation options, contributing to economic growth and community vitality.
Education	Promote awareness, responsible use, and understanding of bicycle and pedestrian facilities through educational programs, outreach efforts, and community engagement, empowering users with the knowledge to navigate the network confidently and effectively.
Efficiency	Support the design, implementation, and ongoing maintenance of bicycle and pedestrian facilities that encourage shifts in travel behavior, reduce dependence on motor vehicles, and alleviate roadway congestion by promoting walking and biking as preferred modes of transportation.
Health	Design pathways that encourage active transportation and support public health initiatives.
Interactive Map	Create and maintain a continuously updated, interactive map that is accessible for cyclists and pedestrians to download and share, serving as a valuable resource for navigation and planning.

PLAN DEVELOPMENT

The development of the 2025 Collier MPO Bicycle-Pedestrian Master Plan began on August 23, 2023, and spanned nearly two years, resulting in a comprehensive and community-driven plan. From the outset, the process emphasized collaboration and inclusivity, with significant engagement from the Bicycle-Pedestrian Advisory Committee (BPAC), which provided continuous feedback and valuable insights throughout the plan's development. Public involvement played a critical role, with over 200 responses collected through surveys designed to capture the perspectives of local stakeholders, highlighting priorities and concerns that shaped the plan's recommendations. An innovative feature of the process was the use of an interactive map, which provided residents with a resource to visually explore the proposed network with greater clarity than conventional maps could offer. This tool allowed stakeholders to actively participate by mapping their own infrastructure requests and documenting specific concerns, aiding the consulting team in pinpointing precise locations and ensuring their incorporation into the plan. In addition to this, two public workshops were held during key phases of the project to present plan components, share preliminary findings, and receive feedback. These workshops fostered meaningful dialogue and ensured that the community's voice was integral to the plan. Groundbreaking collaboration with the Seminole and Miccosukee Tribes of Florida also set a precedent for inclusive planning and emphasized the importance of tribal perspectives in shaping the vision for the future. Although the plan started slowly, it rapidly gained momentum as public involvement deepened, evolving into a dynamic narrative that reflected the collective aspirations and priorities of the community. The result is a forward-thinking plan that integrates a range of voices and provides a safer, more connected, and accessible future for Collier County.

MAJOR COMPONENTS OF THE PLAN

The key components of the plan are outlined in the table of contents. Below is a high-level overview of the role each component plays in the plan:

- **Existing Conditions**: Building on the foundation of the previous plan, this section provides a benchmark for inventing existing facilities. GIS software was used to expand and update the database, offering a solid starting point for identifying needs and priorities.

- **Public Input:** Public engagement is vital to the plan's development. This section summarizes feedback gathered through surveys, workshops, and stakeholder meetings, ensuring the plan reflects the needs and priorities of residents, local organizations, and interest groups. Expanding on the 2019 plan, which mapped public comments, this plan includes an interactive map that allows the public to actively highlight priorities.

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- **Vision, Goals, Objectives & Strategies:** Developed with input from advisory committees and public outreach, this section outlines the vision, goals, objectives, and strategies that shape the plan. It serves as a roadmap for the plan's development.

- **Needs Analysis**: Using data from existing conditions and public input, this analysis identifies critical gaps and areas where improvements are most needed. It informs the prioritization of projects and resource allocation to address community needs effectively.

- **Design Guidelines:** This section provides guidelines and design standards for creating safe, accessible, and connected bicycle and pedestrian infrastructure. These guidelines ensure consistency across future projects and promote a high-quality, user-friendly network.

- **Guidelines and Policies:** The plan establishes planning guidelines to encourage the inclusion of bicycle and pedestrian facilities along all collector and arterial roads, formalizes the applicability of design guidelines, adopts FDOT's Complete Streets policy (as did the 2019 BPMP), identifies high-priority corridors, and outlines MPO priorities for funding improvements. It also commits MPO staff to report on performance measures and targets to the MPO Board annually.

- **Appendices**: The appendices contain a collection of advisory committee and public comments, as well as the tools used in developing the plan, including online surveys and the interactive map.

    - Appendix A – Documented Public Comments During Plan Development
    - Appendix B – Summary of Public Survey Results
    - Appendix C – Eligible Local Streets from the 2019 Bicycle-Pedestrian Master Plan
    - Appendix D – Additional Network Maps

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SECTION 1- EXISTING CONDITIONS

Demographics

At the time of this plan's development, the most recent data from the U.S. Census Bureau's 2023 American Community Survey (ACS) 5 Year Estimates reports that Collier County, Florida, has a population of approximately 387,681. This represents an increase of roughly 11% from the 2016 ACS estimate of 348,236, as cited in the 2019 MPO Bicycle and Pedestrian Master Plan (BPMP). The county consists of three incorporated municipalities: Everglades City, Marco Island, and Naples, along with several Census Designated Places (CDPs) within unincorporated areas, including Immokalee, Golden Gate, and Naples Manor. Comparative demographic data among these municipalities, the larger CDPs, the county overall, and the State of Florida highlight notable socioeconomic diversity.

While the county's average household income surpasses the state average and the poverty rate is lower than Florida's overall, certain areas like Immokalee, Golden Gate City, and Naples Manor face significantly lower incomes, higher poverty levels, and limited vehicle access compared to county and state averages. Residents in these areas are more reliant on walking, biking, and public transit for daily transportation.

Additionally, Collier County hosts a significant number of seasonal residents and visitors who use bicycle and pedestrian networks for recreation, errands, and commuting to local destinations. These factors underscore the critical role of multimodal transportation systems in meeting the diverse mobility needs of the county's population.

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Table 1: Vehicle Availability, Income, Means of Transportation to Work

Area	Occupied Housing Units with No Vehicles Available (Source – 2023 ACS)[1]	Mean Travel Time to Work (Minutes), Workers Age 16+ (2019–2023)[2]	Percent of Population Who Walk, Bike, or Use Public Transportation to Commute to Work[3]	Persons in Poverty[3]	Mean (Average) Per Capita Income in Past 12 Months (in 2023 Dollars), 2019–2023[3]	Median Household Income (in 2023 Dollars), 2019–2023[3]
Florida	5.9%	28.0	3.4%	12.3%	$41,055	$71,711
Collier County	4.5%	25.4	3.5%	10.5%	$59,973	$86,173
Everglades City[4]	5.5%[5]	29.0[3]	5.9%	5.3%[6]	$45,958[7]	$75,163[8]
Marco Island	2.9%	23.7	4.5%	6.3%	$97,179	$104,105
Naples	5.1%	22.3	3.6%	7.1%	$151,564	$140,833
Golden Gate CDP	8.2%	22.9	1.4%	12.9%	$25,843	$64,767
Immokalee CDP	19.0%	35.5	4.6%	24.9%	$18,694	$46,143
Naples Manor CDP	7.7%	21.0	4.0%	18.2%	$22,388	$63,142

[1] U.S. Census Bureau. *Vehicles Available and Electric Vehicles.* American Community Survey (ACS), 2023.

[2] U.S. Census Bureau. *QuickFacts: Population 5,000 or More.* https://www.census.gov/quickfacts/

[3] U.S. Census Bureau. *S0801: Commuting Characteristics by Sex,* ACS 2023 5-Year Estimates.

[4] Note: Some data are based on small statistical samples with high margins of error, indicating estimates may be unreliable.

[5] U.S. Census Bureau. *DP04: Selected Housing Characteristics,* ACS 2023 5-Year Estimates.

[6] U.S. Census Bureau. *S1701: Poverty Status in the Past 12 Months,* ACS 2023 5-Year Estimates.

[7] U.S. Census Bureau. *S1902: Mean Per Capita Income in the Past 12 Months,* ACS 2023 5-Year Estimates. (Margin of error: ±$22,584)

[8] U.S. Census Bureau. *Everglades City, Florida Profile,* ACS 2023 5-Year Estimates.

According to the U.S. Census Bureau's 2023 American Community Survey (ACS) 5-Year Estimates[9], approximately 33.0% of Collier County's population is age 65 or older, representing a notable increase from 30.0% in 2016. This proportion is significantly higher than the statewide average of approximately 21.0% for the same period. The continued growth of the senior population has important implications for transportation planning, particularly in the provision of non-driving options such as public transit, walking, and bicycling.

In addition to demographic shifts, Collier County is projected to experience substantial population growth in the coming decades. The 2020 Decennial Census reported a population of 375,752. According to the University of Florida's Bureau of Economic and Business Research (BEBR)[10], the county's population is projected to increase to approximately 413,300 by 2025 and to exceed 500,000 by 2050 under the medium growth scenario. This anticipated growth of more than 125,000 residents underscores the importance of proactive, multimodal transportation planning. Continued investment in bicycle and pedestrian infrastructure will be essential to managing future congestion, enhancing mobility options, and improving overall quality of life.

Bicycle and Pedestrian Infrastructure

In Collier County, bicyclists and pedestrians are allowed to use most roads, sidewalks, and shared-use paths, except for limited-access facilities like Interstate 75 (I-75), as permitted under Florida law. This accessibility necessitates a comprehensive approach to infrastructure planning, ensuring compliance with the Americans with Disabilities Act (ADA), improving intersections, and developing corridors that prioritize safe walking and cycling.

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[9] U.S Census Bureau. DP05: Demographic and Housing Estimates, ACS 2023 5-Year Estimates.
[10] University of Florida, Bureau of Economic and Business Research. *Projections of Florida Population by County, 2025–2050, with Estimates for 2023.* Bulletin 198, January 2024. Available at: https://bebr.ufl.edu/wp-content/uploads/2024/01/projections_2024.pdf

As shown in **Table 2:** Existing Facilities Inventory by Centerline Miles, Collier County has approximately 1,683 centerline miles of roadways maintained by both county and state agencies. A recent inventory of arterial and collector roads identified the following bicycle and pedestrian facility types:

Table 2: Existing Facilities Inventory by Centerline Miles

Facility Type	Centerline Miles
Bike Lane	228
Bike Lane & Shared Use Path	10
Sidewalk	195
Greenway	8
Low Speed / Low Volume	15
Paved Shoulder	210
Paved Shoulder & Shared Use Path	2
Sharrow	12
Sidewalk & Bike Lanes	11
Sidewalk & Paved Shoulders	2
Shared Use Path	63

Collier County has programmed several projects for completion within fiscal years 2019–2029, as shown in **Table 3:** Programmed Facilities Inventory by Centerline Miles. These projects have secured funding and are advancing toward construction: A recent gap analysis (detailed in Section 5) revealed approximately 76 miles of arterial and collector roads without any bicycle-pedestrian facilities, as well as 210 miles with inadequate facilities, such as narrow paved shoulders. Addressing these deficiencies remains a county priority, with significant resources directed toward closing network gaps.

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Facility Type	Centerline Miles
Bike Lane & Sidewalk	27
Bike Lane, Sidewalk, & Shared Use Path	12
Bike Lane & Shared Use Path	4
Sidewalks	26
Sidewalk & Paved Shoulder	28
Shared Use Path	4

The current bicycle and pedestrian network in the Collier MPO area is well-connected, especially in urban centers like Naples and Marco Island; planned and programmed facilities in Immokalee and Everglades City will substantially improve their networks. Existing facilities include sidewalks, bike lanes, shared use paths (SUPs), and greenways that support non-motorized transportation. However, rural and less developed areas still experience connectivity gaps. Strengthening these connections is essential to creating a safer, more accessible network for all users.

Beyond facility availability, factors like traffic volume, speed limits, and facility design impact usage and perceptions of safety. Best practices recommend physically separating bike lanes from vehicular traffic on high-speed, high-volume roads to enhance cyclist safety and comfort. Expanding the network's quality, safety, and connectivity is crucial to making bicycling a viable and attractive transportation option countywide.

Improving the sidewalk and pathway network is key to supporting pedestrian mobility and safety. Efforts include constructing new infrastructure in high-demand areas and ensuring seamless integration with existing facilities. FDOT and Collier County have placed greater emphasis on providing shared use paths adjacent to arterial roads in recent years. Additionally, the implementation of dedicated bike lanes should be prioritized moving forward, with a focus on separating them from vehicular traffic where the right-of-way (ROW) allows. Dedicated bike lanes provide an alternative location for micromobility uses that can ease pressure on sidewalks, especially along road segments that receive heavy pedestrian use. Retrofitting existing roadways with paved shoulders is another critical strategy, offering enhanced options for riders by converting these shoulders into dedicated bike lanes or shared use paths.

These enhancements align with Collier County’s broader planning objectives to establish a more inclusive, multimodal transportation system that meets the needs of all users.

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Other Bicycle and Pedestrian Plans

The cities of Naples, Marco Island, and Everglades City, alongside Collier County, continue to prioritize improvements to bicycle and pedestrian infrastructure. Their respective master plans align closely with the Collier Metropolitan Planning Organization (MPO) to enhance safety, connectivity, and accessibility. The MPO's Bicycle and Pedestrian Master Plan integrates these municipal priorities to ensure a coordinated regional approach.

Naples

The City of Naples has adopted its updated Pedestrian and Bicycle Master Plan, emphasizing infrastructure enhancements such as installing bike lanes where feasible, adding shared-lane markings, incorporating green bike boxes, and implementing bike lane striping during pavement resurfacing projects. These measures aim to further support the city's vibrant walking and biking culture. The updated plan aligns with ongoing evaluations in this Collier MPO plan, showcasing the city's commitment to safety and multimodal accessibility.

Marco Island

Marco Island's Bicycle and Shared Use Path Master Plan is updated annually to meet its vision of facilitating cycling for riders of all skill levels. Projects funded for completion within the next five years include upgraded pathways and designated bike lanes to encourage recreational and commuter use. The MPO plan incorporates Marco Island's evolving priorities to ensure county-wide connectivity.

Everglades City:

Recognized as a Florida Trail Town by the Florida Department of Environmental Protection, Everglades City adopted its first Bicycle and Pedestrian Master Plan in August 2020. Phase 1 improvements have been completed and phases 2, 3, 4 are currently programmed in the MPO's Transportation Improvement Program (TIP). Collier County has supported the city's effort by approving the use of its ROW and agreeing to maintain improvements on CR 29 (Collier Ave.). FDOT has been proactive in supporting the city's master plan by serving as the lead agency on these projects. Phase 5, which proposes creating a linear park along Chokoloskee Causeway, remains in the concept development phase.

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County Initiatives:

Collier County has made significant strides in equity-focused projects, particularly through implementing Community Walkability Studies Completed for Golden Gate City, Naples Manor, Immokalee, and collaborations with Community Redevelopment Agencies (CRAs). A $13 million federal RAISE (formerly TIGER) grant is funding substantial infrastructure improvements in Immokalee, including 20 miles of new sidewalks, upgraded intersections, and enhanced transit facilities. These advancements support broader MPO goals of increased multimodal transit access and connectivity, especially in underserved areas.

Several Improvements are programmed in the MPO's TIP at the request of the Bayshore Gateway Triangle CRA. For more detailed updates and information about ongoing initiatives, you can review the Collier MPO's recent agendas and Bicycle & Pedestrian Master Plan updates on their official site.

Walkability Studies

The Collier MPO has completed several Walkability Studies requested by Collier County to assess and prioritize walking infrastructure needs in various communities across the County. These studies—covering Bayshore, Naples Manor, Immokalee, Naples Park, and Golden Gate City—help identify the key areas in need of improvement to enhance walkability. The results from these studies have been integrated into the broader plan for bicycle and pedestrian infrastructure development.

For example, the Bayshore and Naples Manor studies (conducted in 2010) highlighted issues such as gaps in sidewalks and unsafe pedestrian crossings. Similarly, the Immokalee and Golden Gate City studies emphasized areas where pedestrians face challenges in terms of connectivity and safety. These recommendations have been added to the MPO's priority list for future infrastructure improvements.

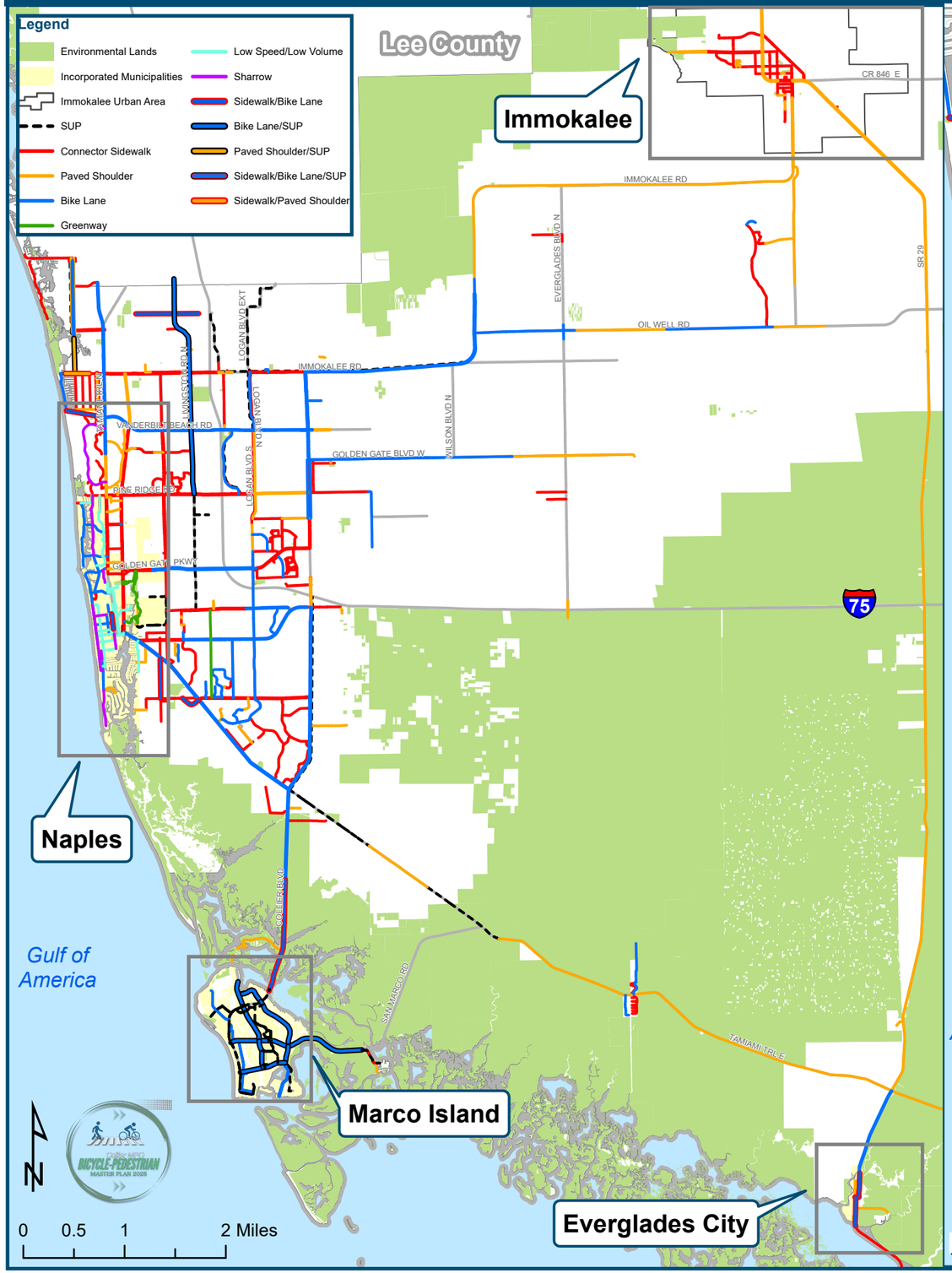
Additionally, the Collier MPO has been actively addressing pedestrian and cyclist safety needs through various studies, including the Golden Gate City Walkability Study, which was last completed in 2019.

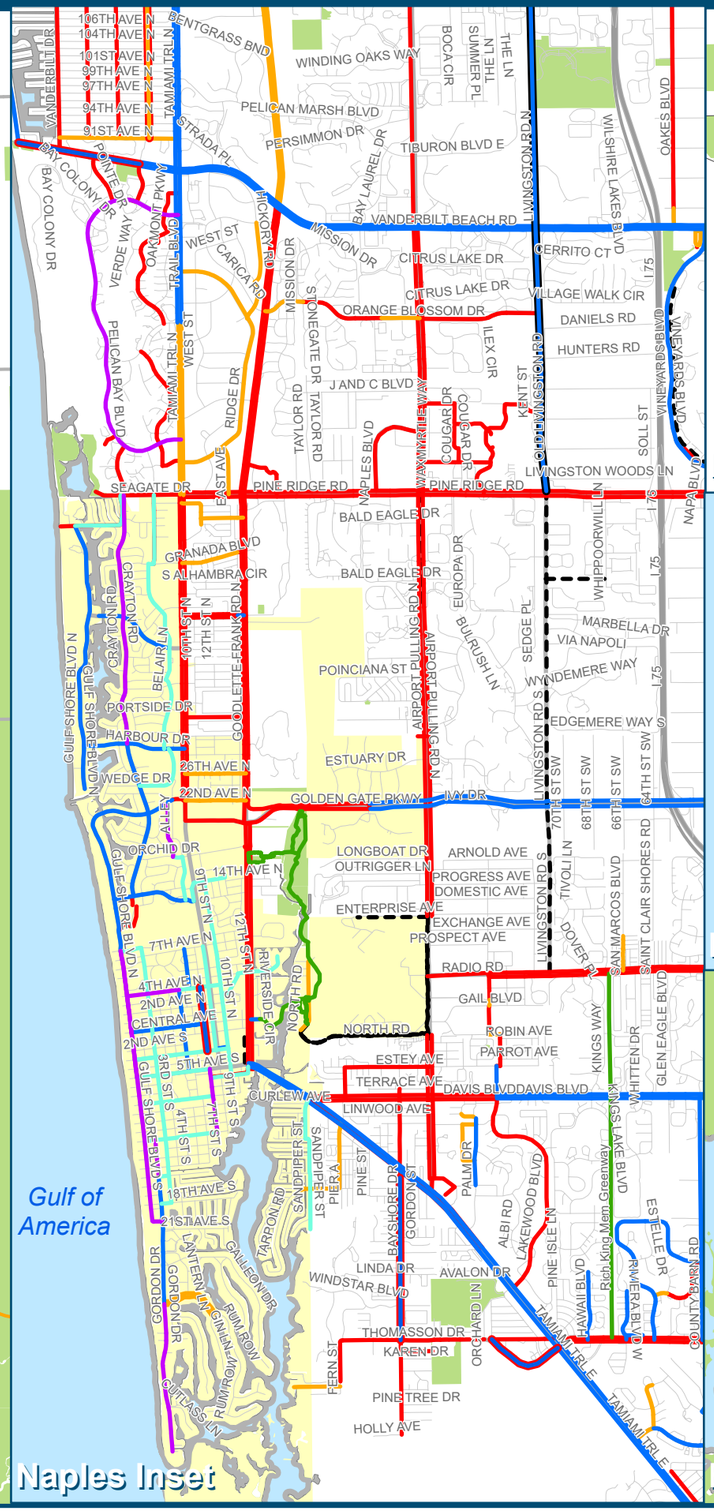
For more detailed information, please refer to the Collier MPO's reports and appendices in the documents provided by their official publications.

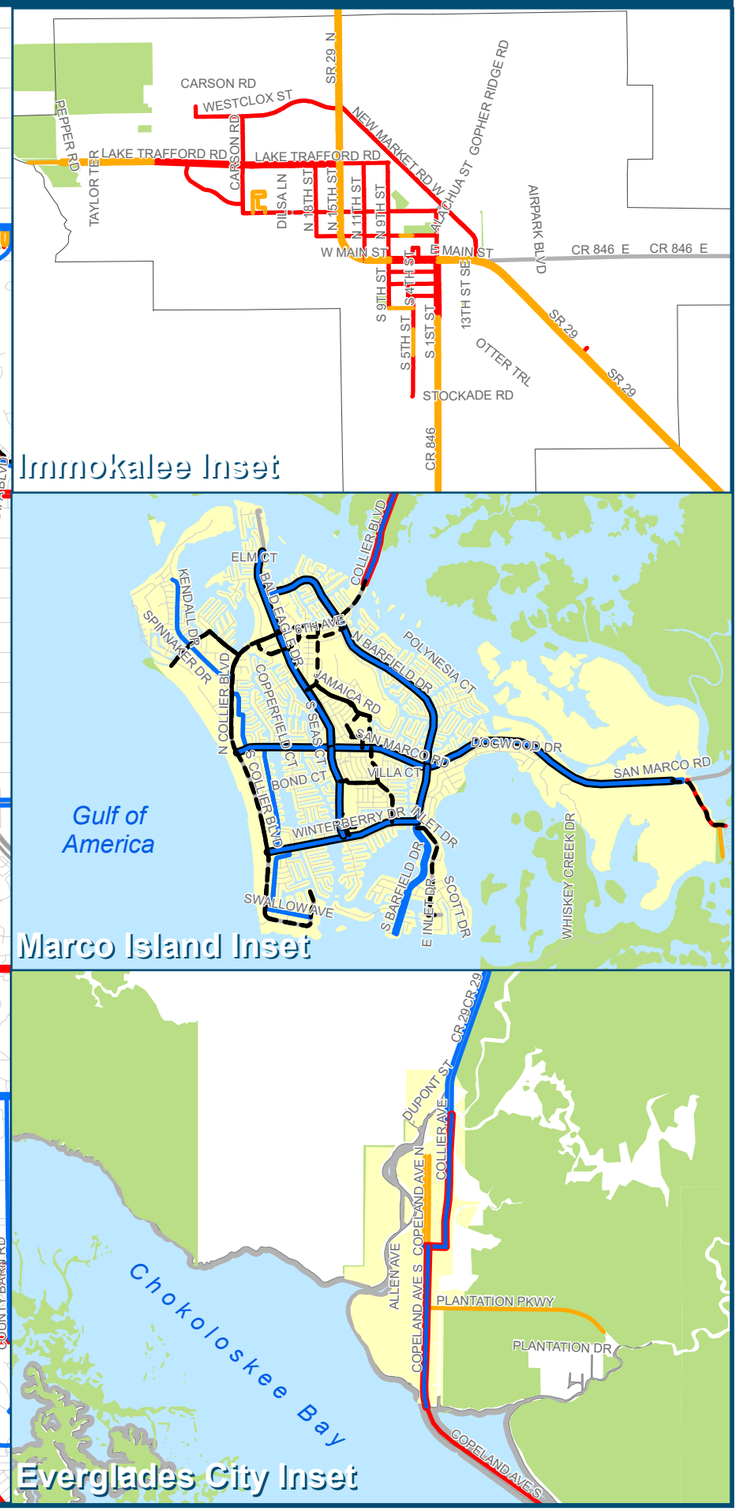
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Exhibit 1: Existing Facilities Inventory

Bicycle & Pedestrian Master Plan







SECTION 2 - CRASH ANALYSIS AND SAFETY FOCUS

The Crash Analysis and Safety Focus section of the Collier MPO Bicycle-Pedestrian Master Plan (BPMP) builds on data and insights from the Comprehensive Safety Action Plan (CSAP), which is supported by the federal Safe Streets and Roads for All (SS4A) grant. This analysis examines the severity and distribution of crashes involving vulnerable road users, such as pedestrians and cyclists, which represent a disproportionate percentage of severe traffic incidents in Collier County. By focusing on high-risk corridors, crash trends, and contributing factors, the analysis provides a clear understanding of which bicycle-pedestrian facilities should be prioritized for improvement. The findings also inform the design of targeted enforcement campaigns aimed at reducing unsafe driving behaviors and promoting safer interactions between motorized and non-motorized users. For a broader scope of crash data, including countywide trends beyond bicycle and pedestrian incidents, the CSAP can be reviewed on the MPO website and is anticipated to be completed by September 2025. Through these efforts, the BPMP aims to implement data-driven safety strategies that enhance infrastructure, increase visibility, and foster safer conditions for all road users.

Crash Severity and Vulnerable Road Users

Although crashes involving pedestrians and cyclists account for only 4% of all traffic incidents in Collier County, they represent 23% of all severe crashes—those resulting in fatalities or serious injuries (KSI). Pedestrians account for 11% of all KSI incidents, and cyclists account for 12%. These figures underscore the heightened vulnerability of non-motorized users in a predominantly motorized environment. **Figure 1**, "People Killed or Seriously Injured by Mode," highlights this disproportionate impact, serving as a call to action for targeted investments in infrastructure and policy measures designed to protect these road users.

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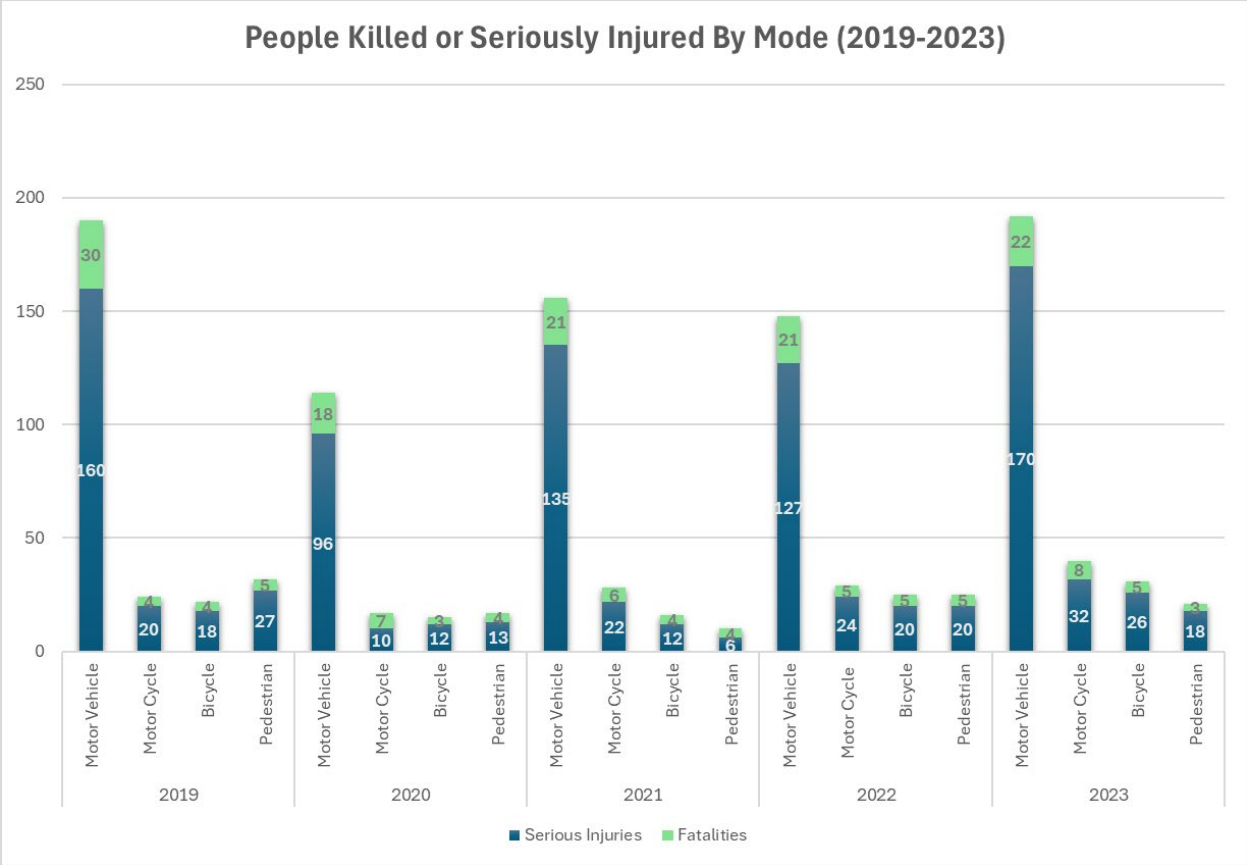


Figure 1: KSI Crashes by Mode (2019-2023), Source Collier MPO SS4A CSAP

Geographic Distribution and Crash Trends

Severe crashes are highly concentrated along major arterial roadways, such as Immokalee Road, Pine Ridge Road, Airport-Pulling Road, and US-41. These corridors, characterized by high traffic volumes, high posted speeds (45-55 mph), and limited infrastructure for non-motorized users, pose significant risks for pedestrians and cyclists. **Figure 2**, the "Bicycle and Pedestrian KSI Crash Density Heat Map," illustrates these hotspots, highlighting areas in need of immediate safety improvements.

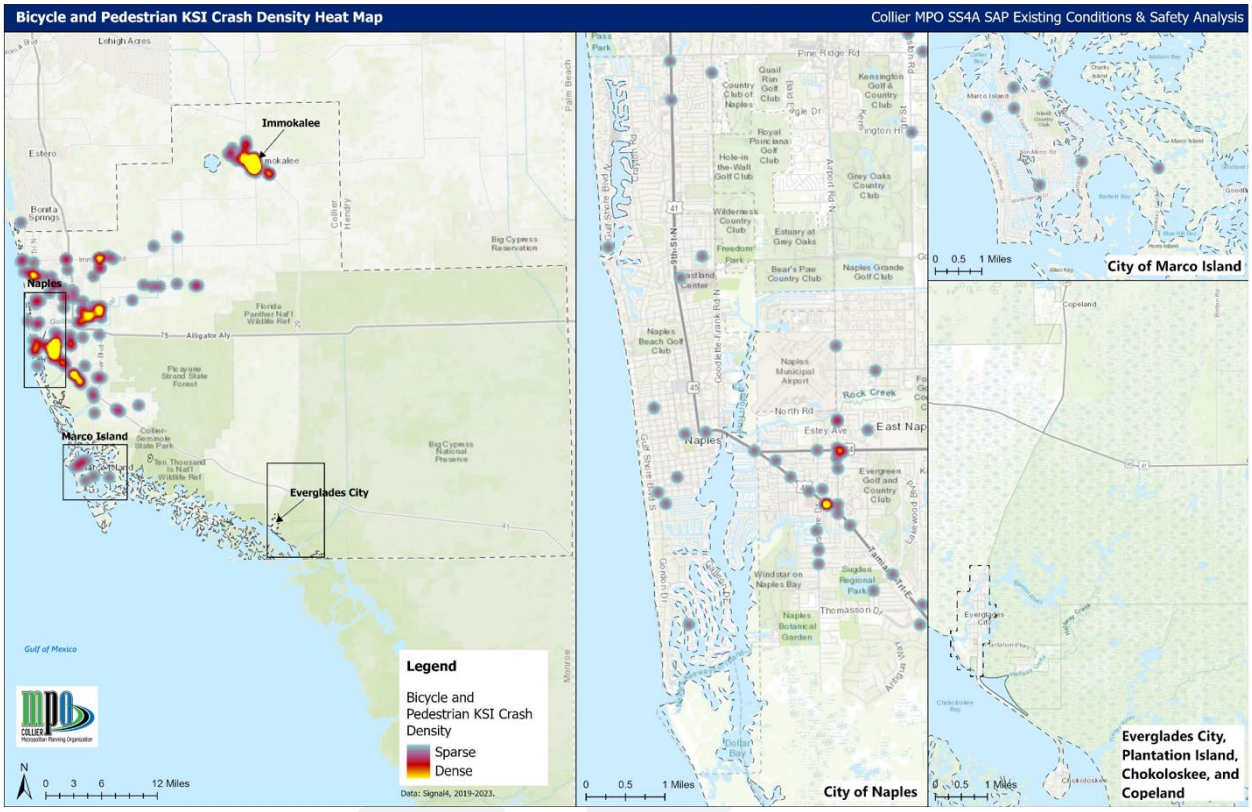


Figure 2: Bicycle and Pedestrian KSI Crash Density Heat Map, Source Collier MPO SS4A CSAP

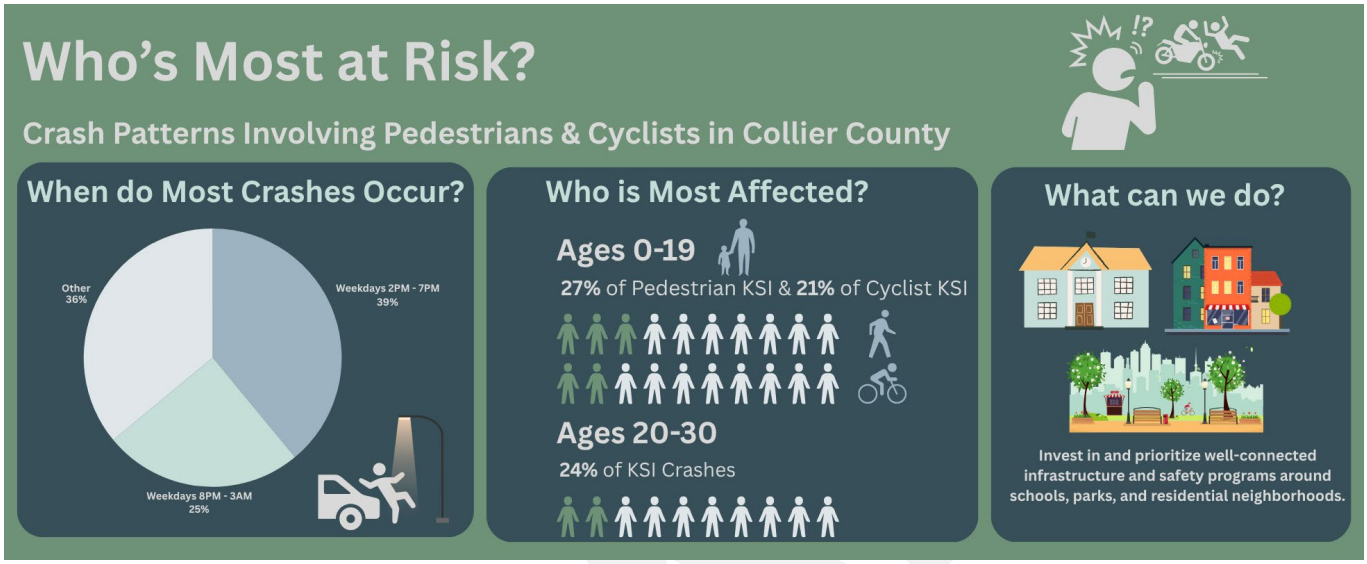
The analysis reveals shifts in crash patterns. Crashes involving pedestrians and cyclists returned to and exceeded pre-pandemic levels after an initial decline. This resurgence underscores the necessity for proactive, long-term safety strategies, including the implementation of robust infrastructure improvements and community education campaigns.

Crash Trends by Day, Time, and Age of Victim

Demographic and timing analyses provide critical insights into crash patterns. Nearly 70% of KSI crashes involving pedestrians and cyclists occur on weekdays, with the highest concentration (39%) occurring between 2 PM and 7 PM. Evening and late-night hours (8 PM to 3 AM) account for 25% of severe crashes, pointing to the need for improved street lighting and visibility measures during low-light conditions.

Demographically, individuals aged 20 to 30 years account for 24% of KSI crashes, a disproportionately high share given that this age group comprises only 9% of the county's population. Younger residents, particularly children and teens aged 0 to 19 years, are also overrepresented, accounting for 27% of

pedestrian KSI crashes and 21% of cyclist KSI crashes. These findings highlight the critical need for child-friendly infrastructure and safety programs targeting schools, parks, and residential neighborhoods.



Traffic Speed and Crash Severity

Arterial roadways, which serve as the backbone of Collier County's transportation network, are designed to facilitate the efficient movement of people and goods. However, their high-speed limits (typically 45 mph or greater), wide intersections, and lack of sufficient infrastructure for non-motorized users make them particularly hazardous for pedestrians and cyclists. Research from the 2023 Pedestrian Safety Month Resource Guide[11] consistently shows that vehicle speed is a critical factor in the severity of crashes. As vehicle speeds increase, the likelihood of a fatal or serious injury rises dramatically. **Figure 3** illustrates the correlation between vehicular speed and pedestrian survival rates, reinforcing the importance of speed management strategies.

[11] https://www.trafficsafetymarketing.gov/safety-topics/pedestrian-safety#1886



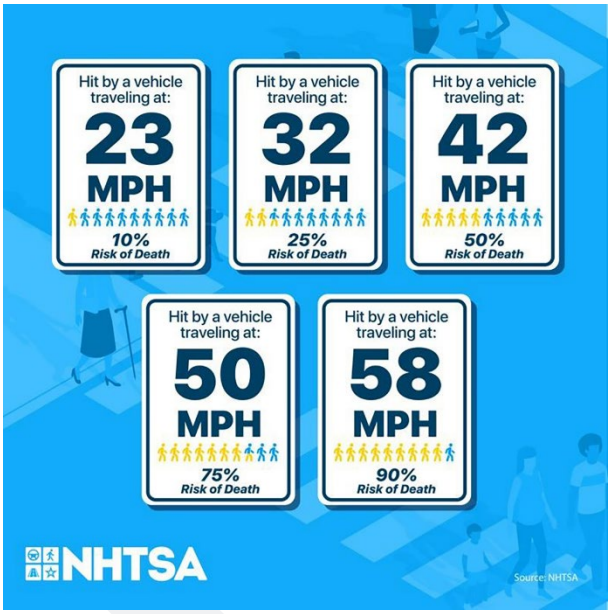


Figure 3: Vehicular Speed and Pedestrian Survival Rates (NHTSA)

To address these risks, speed management must be a key focus within the BPMP. Measures such as road diets, speed humps, raised crosswalks, and protected bike lanes can help mitigate the impact of high speeds by increasing driver visibility and awareness, while also providing non-motorized users with a greater sense of safety. Additionally, public awareness campaigns can emphasize the life-saving benefits of reducing vehicle speeds.

Contributing Factors and High-Crash Corridors

Behavioral and environmental factors play a significant role in crash occurrences. As seen in **Figure 4**, reckless driving, failure to yield, roadway departure, and speeding collectively account for the majority of KSI crashes. Additionally, parking lots, despite being low-speed environments, contribute to 10% of pedestrian and cyclist KSI crashes, highlighting the need for safety measures in these areas.

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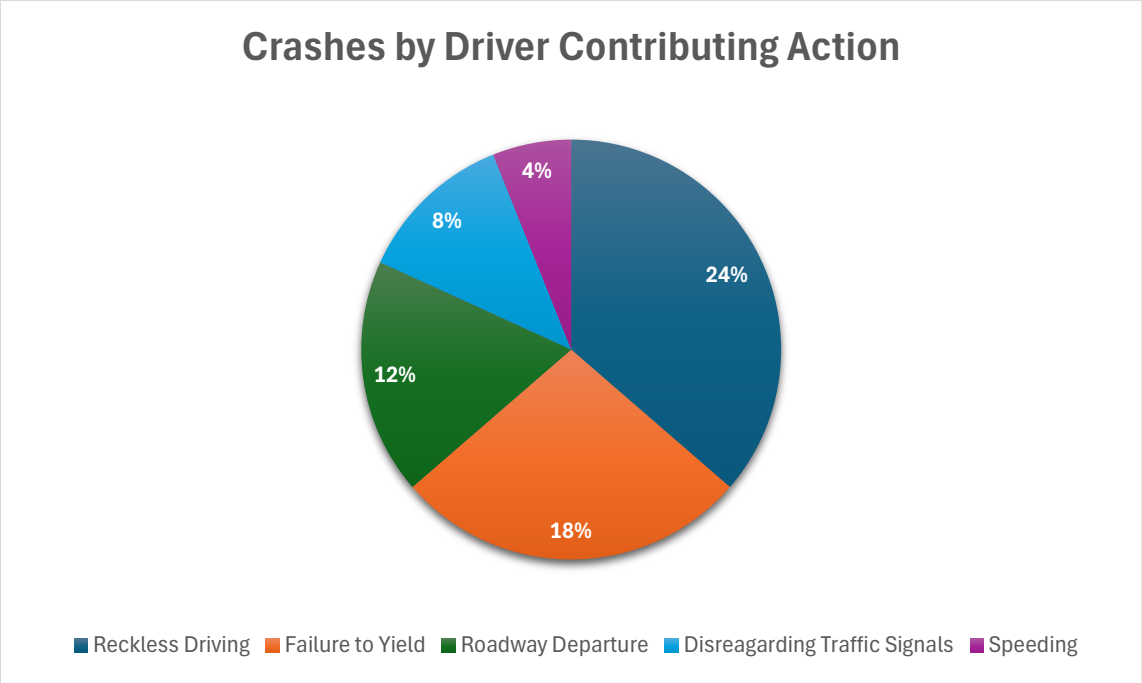


Figure 4: KSI Crashes by Driver Contributing Action

High-Crash Corridors in Collier County

As Collier County continues to experience population growth and increased development, pedestrian and cyclist safety remains a critical concern. The Florida Department of Transportation (FDOT) has identified Collier County as a high-priority area for improving safety infrastructure. According to the *FDOT 2021 Florida Pedestrian and Bicycle Safety Plan*[12], Collier County ranks 25th among Florida counties for pedestrian crashes. While this places it at the lower end of the top 25, the ranking highlights the need for proactive measures to reduce crashes and enhance safety for vulnerable road users.

The *FDOT District One Active Transportation Plan (2022)*[13] identifies specific high-crash corridors in Collier County that pose significant risks to pedestrians and cyclists. These corridors, assigned crash index scores of 81-100 (the highest in the region), include:

[12] FDOT (2021). *Florida Pedestrian and Bicycle Safety Plan*
[13] FDOT (2022). *District One Active Transportation Plan*

- US-41 between Davis Boulevard and Collier Boulevard: A heavily trafficked urban corridor that connects residential areas with commercial hubs and serves as a critical route for both local and regional travel.
- SR-29 between North 11th Street and New Market Street: A key route through Immokalee that serves as an essential connection for residents, many of whom rely on walking and biking to access nearby amenities.

These corridors, which serve as vital links for both motorized and non-motorized users, present significant opportunities for safety enhancements. Targeted interventions, such as upgraded crossings, signalization improvements, and dedicated infrastructure for pedestrians and cyclists, are essential to reducing crash frequency and severity.

High Injury Network (HIN)

As part of the Collier MPO's Safety Action Plan (SAP), a detailed High Injury Network (HIN) was developed to identify roadway segments and intersections with the highest incidence of serious and fatal crashes involving bicyclists and pedestrians. This analysis serves as a critical input into the BPMP by guiding where targeted safety improvements should be prioritized to have the greatest impact.

The HIN includes a Tier I and Tier II classification, capturing the top 20% of bicycle and pedestrian crash locations (by severity and frequency). These tiers were developed to balance high crash density with manageable improvement scopes. Together, Tier I and II encompass just 3.8% of the county's roadway miles, yet account for 46% of all bicycle and pedestrian killed or seriously injured (KSI) crashes.

- Tier I alone captures 30% of all KSI crashes on just 0.6% of total roadway mileage.
- The combined HIN includes 103.5 miles of roadway and 48 high-risk intersections, where a total of 97 bicycle and pedestrian KSI crashes occurred.

These findings reinforce that a relatively small subset of roadways and intersections are responsible for a disproportionate share of the region's most severe active transportation crashes.

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Table 3: Bicycle and Pedestrian HIN Tier I Intersections

Location	Planning Community	KSI	Rank
Pulling Rd & Tamiami Trl	East Naples	2	1
Pelican Bay Blvd & Tamiami Trl	North Naples	2	2
Radio Rd & Livingston Rd	East Naples	1	3
Kendall Dr & N Collier Blvd	City of Marco	1	4
Vanderbilt Beach Rd & N Goodlette Frank Rd	North Naples	1	5
Davis Blvd & Airport-Pulling Rd S	East Naples	1	6
Immokalee Rd & Strand Blvd	Urban Estates	1	7
Tamiami Trl & Whistlers Cove Blvd	South Naples	1	8
Tamiami Trl & Broward St	South Naples	1	9
Tamiami Trl & Lakewood Blvd	East Naples	1	10
Tamiami Trl & Espinal Blvd	East Naples	1	11
Davis Blvd & Shadowlawn Dr	East Naples	1	12
Neapolitan Way & Tamiami Trl	City of Naples	1	13
New Market Rd W & Charlotte St	Immokalee	1	14
State Road 29 S & Farm Worker Way	Immokalee	1	15
Lake Trafford Rd & State Road 29 N	Immokalee	1	16
Main St & 1st St	Immokalee	1	17
Isle of Capri Blvd & Collier Blvd	Royal Fakapalm	1	18
Radio Rd & Industrial Blvd	East Naples	1	19

Table 4: Bicycle and Pedestrian HIN Tier I Roadway Segments

Segment Name	Segment Start	Segment End	Planning Community	Miles	Bicycle & Pedestrian KSI	Rank
Tamiami Trl	Bayshore Dr	Airport-Pulling Rd S	East Naples	0.25	5	1
W Main St	N 9th St	N 1st St	Immokalee	0.45	6	2
Airport-Pulling Rd S	Estey Ave	North Rd	East Naples	0.21	2	3
Pine Ridge Rd	I-75 West Ramp	I-75 East Ramp	Urban Estates	0.13	1	4
E Main St	N 1st St	New Market Rd E	Immokalee	0.35	1	5
S 1st St	Stockade Rd	Main St	Immokalee	1.47	4	6
Pine Ridge Rd	I-75 E Onramp	Napa Blvd	Urban Estates	0.19	1	7
5th Ave S	9th St S	S Goodlette Frank Rd	City of Naples	0.2	1	8
Airport-Pulling Rd S	Davis Blvd	Estey Ave	East Naples	0.2	1	9
Bayshore Dr	Thomasson Dr	Tamiani Trl	East Naples	1.37	3	10
Pine Ridge Rd	Livingston Rd	Whippoorwill Ln	Urban Estates	0.43	2	11
State Road 29 N	New Market Rd W	Johnson Rd	Corkscrew	1.97	3	12
Grand Lely Dr	Lely Resort Blvd	Collier Blvd	South Naples	0.67	1	13
Tamiami Trl	Granada Blvd	Pine Ridge Rd	Central Naples	0.51	2	14
Orange Bossom Dr	N Airport Rd	Livingston Rd	North Naples	0.96	1	15
Green Blvd	Logan Blvd S	Collier Blvd	Golden Gate	1.95	2	16
Golden Gate Pkwy	Tamiami Trl	Tamiami Trl	City of Naples	0.18	1	17
Tamiami Trl	St Andrews Blvd	Broward St	South Naples	1.25	4	18
Vineyards Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Urban Estates	2.42	1	19

Integrating the HIN into the BPMP

To improve safety outcomes, the BPMP emphasizes the importance of prioritizing projects that align with the HIN. By identifying these high-risk corridors and intersections, the MPO can focus on limited resources where they are needed most and where they will have the greatest impact on reducing severe and fatal crashes.

Accordingly, the project evaluation criteria within this Plan will assign higher scores to proposed bicycle and pedestrian improvements located on or directly benefiting an identified Tier I or Tier II HIN segment or intersection. This approach ensures that the selection and funding of future projects are guided by data-driven safety priorities that directly address the most pressing needs. Incorporating the HIN into the BPMP also positions the Collier MPO and its partners to utilize and be eligible for federal implementation grants through the Safe Streets and Roads for All (SS4A) program, which supports projects that directly address identified safety concerns.

A full and detailed analysis of the High Injury Network can be found in the Collier MPO SS4A Safety Action Plan.

Pedestrian and Bicycle Safety Audits

A Pedestrian and Bicycle Safety Audit (PBSA) is a specialized evaluation of roadways and intersections designed to identify safety challenges and opportunities to enhance conditions for pedestrians and bicyclists. By leveraging crash data, observing traffic patterns, and assessing infrastructure design, PBSAs offer actionable recommendations to improve safety and accessibility for non-motorized users. These audits are essential as communities work to develop safer, more inclusive transportation systems, particularly in response to growing urbanization and increasing demand for pedestrian and bicycle infrastructure. Looking ahead, PBSAs will be pivotal in advancing long-term safety initiatives like Target Zero by addressing high-risk locations, mitigating traffic speed risks, and promoting equitable access to safe travel. As mobility trends evolve, the role of continuous evaluations and forward-thinking planning becomes increasingly critical to building resilient and user-friendly transportation networks.

Bicycle Crash Trends

- While bicycle crashes make up only 2% of all crashes, they account for 12% of KSI (Killed or Seriously Injured) crashes, with 1 in 9 resulting in a fatality or serious injury.
- Serious bicycle crashes are more common in winter and spring, making up 66% of incidents, likely due to seasonal population increases and favorable biking conditions.
- The most dangerous locations for cyclists are large urban intersections with six or more lanes and moderate to high traffic volumes, emphasizing the need for improved infrastructure.

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Pedestrian Crash Trends

- Although pedestrian crashes represent only 2% of total crashes, they account for 11% of all KSI crashes, with 1 in 10 resulting in a fatality or serious injury.
- Many serious pedestrian crashes occur at smaller, low-traffic signalized intersections, highlighting the need for enhanced pedestrian safety measures.
- Despite being low-speed environments, parking lots contribute to 10% of serious pedestrian crashes, a significantly higher proportion than for other road users, indicating a need for better design and safety interventions.

These findings highlight specific safety concerns, such as driveway and intersection design, driver awareness of non-motorized users, and pedestrian signal compliance. Addressing these issues through targeted infrastructure improvements, education, and enforcement remains critical to reducing crashes and improving safety for pedestrians and bicyclists in Collier County.

Street and Sidewalk Lighting

Lighting is a critical safety feature that enhances visibility for motorists, pedestrians, and bicyclists, significantly reducing the risk of crashes during low-light conditions. Incorporating adequate lighting is essential during the design and construction of bicycle and pedestrian infrastructure to ensure safety and accessibility for all users. Public feedback frequently highlights the connection between safety and proper lighting, emphasizing its importance in creating a secure walking and biking environment. As part of the public outreach efforts for this Plan, a survey was conducted to understand the factors influencing perceptions of safety or feelings of being unsafe while walking or biking. The survey results, presented in the Appendix, indicated that 21% of respondents identified lighting as a primary concern contributing to these feelings. This feedback highlights the importance of prioritizing investments in street lighting, especially in high-crash and poorly lit areas, to enhance safety and build confidence among pedestrians and bicyclists.

Safety Performance Targets

The Florida Department of Transportation (FDOT) has embraced Target Zero, a program committed to achieving zero traffic fatalities or severe injuries across the state. In alignment with this goal, the Collier MPO adopted FDOT's safety performance targets beginning in February 2018 and has continued to do so on an annual basis. This adoption allows the MPO to leverage FDOT's annual reporting to the Federal Highway Administration (FHWA) through the Statewide Transportation Improvement Program (STIP), streamlining reporting for the MPO's Transportation Improvement Program (TIP) and Long-Range Transportation Plan (LRTP).

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Target Zero and Safety Performance Targets

Safety remains a top priority for the MPO and is the first national goal outlined in the Fixing America's Surface Transportation (FAST) Act. Under the FAST Act, the FHWA mandates that state Departments of Transportation (DOTs) and MPOs adopt five safety performance targets, which Collier MPO originally endorsed in February 2018 and readopts on an annual basis. These targets focus on reducing fatalities and serious injuries, including those involving non-motorized road users.

The five safety-performance measures include:

- Number of fatalities
- Rate of fatalities per 100 million vehicle miles traveled (VMT)
- Number of serious injuries
- Rate of serious injuries per 100 million VMT
- Number of non-motorized fatalities and serious injuries

In 2023, FDOT reported significant progress toward Target Zero[14]:

- A 10% reduction in total traffic fatalities statewide compared to 2021.
- A decline in non-motorized fatalities and serious injuries, with a combined total of 750, down from 820 in 2020.
- A continued focus on high-risk areas and vulnerable road users through data-driven interventions.

Collier MPO's Safety Efforts

The Collier MPO integrates this safety performance targets into its plans and projects, prioritizing non-motorized safety improvements. As part of its ongoing commitment, the MPO emphasizes infrastructure upgrades, education campaigns, and enforcement measures to reduce risks for pedestrians and bicyclists. Referenced in the LRTP, Policy and Implementation, outlines the framework for monitoring and reporting progress on these targets.

By aligning with Target Zero and adopting FDOT's targets, Collier MPO reinforces its dedication to creating a safer transportation network, fostering a culture of safety, and advancing the goal of eliminating severe injuries and fatalities on Florida's roadways.

[14] Florida Department of Transportation (FDOT), Safety Performance Measures and Progress Report (2023).

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SECTION 3 - PUBLIC ENGAGEMENT

Community Engagement Overview

The development of this Plan employed an enhanced community engagement process designed to maximize participation and gather diverse input from residents and stakeholders. Traditional outreach methods—such as workshops, committee meetings, and open houses—were supplemented with innovative efforts to ensure broader involvement. Key highlights include:

- **Engagement with Tribal Nations**: Meetings were held with the Seminole Tribe of Florida and the Miccosukee Tribe to incorporate their perspectives.
- **Participation at Non-MPO Meetings**: Outreach extended to non-MPO gatherings to reach broader audiences.
- **Interactive Online Map**: The Collier MPO website featured an interactive map that allowed residents to pinpoint specific locations and submit comments directly.
- **Community Surveys**: Surveys were offered online and distributed widely, with outreach events promoting participation.

The public engagement process generated over nearly **350** comments, as illustrated in the Public Engagement Responses chart (**Figure 5**). These comments, outlined below and included in the appendices, highlighted several recurring themes:

- Enhance safety for pedestrians and cyclists.
- Address gaps in sidewalks, bike lanes, and paths, prioritizing regional connections.
- Improve maintenance of existing bicycle and pedestrian facilities.
- Develop shared use paths wherever feasible.
- Increase emphasis on protected and separated bike lanes.
- Install improved lighting in low-lit areas
- Provide increased shade along heavily used pedestrian corridors to improve comfort and usability.

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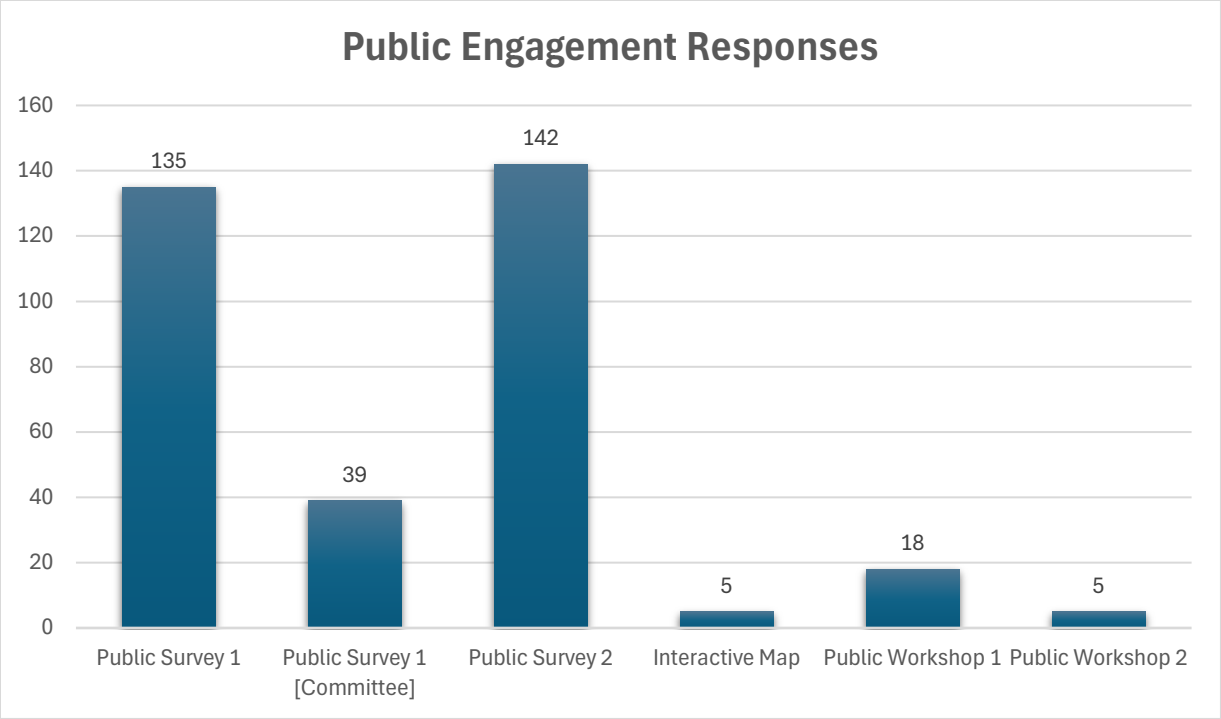


Figure 5: Public Engagement Response Count by Media Platform

Online Workshops

To ensure accessibility, two online open-house workshops were held after standard work hours during the Plan's development:

- **Initial Public Workshop**: Conducted early in the process in October 2024, this session gathered public input on plan goals, bicycle and pedestrian facility needs, and perceptions of the transportation system. Participants voted on goal statements, which helped shape the evaluation criteria. The workshop drew 35 participants, with additional five written comments submitted afterward.
- **Second Public Workshop**: Held in early May 2025, this workshop marked the first public unveiling of the draft master plan. The session was designed to validate prior community feedback, confirm public support, and collect additional input to refine the plan. Participants engaged with key components of the draft through interactive tools such as real-time discussion whiteboards, mapping exercises to identify facility gaps, voting on preferred elements, and submitting final recommendations. One key topic that emerged during the workshop was the opportunity to increase shade along major active transportation corridors. The event drew approximately 10 participants and generated valuable feedback both during and following the session.

Additional Community Feedback

Beyond workshops and surveys, the MPO received numerous emails, phone calls, and letters from citizens seeking information or providing comments on the Plan. These communications are cataloged in **Appendix A**, demonstrating the high level of public interest and engagement in shaping this Plan.

Tribal Community Outreach

Public outreach for the Bicycle-Pedestrian Master Plan marked a significant milestone, as it was the first time tribal communities were actively involved in the development of such a plan. Engagements included outreach to the Seminole Tribe of Florida's Immokalee Reservation and a virtual meeting with the Miccosukee Tribe, ensuring their unique perspectives and concerns were addressed and documented. This Bicycle-Pedestrian Master Plan serves as a pioneer in fostering collaboration with tribal communities, setting a precedent for future planning efforts to be more inclusive and reflective of the diverse needs of all stakeholders.

Interactive Map

Figure 6 shows a segment of an interactive web-based tool used to gather public input. Residents could submit comments regarding bicycle and pedestrian needs, challenges, required connections, safety issues, and potential destinations. This interactive map is available on the Collier MPO Bicycle-Pedestrian Master Plan homepage, where users can find the link to the map as well as additional resources, including a user manual that provides step-by-step instructions for documenting public feedback. The map serves as a visual aid, allowing the public to explore the active transportation network in Collier County. Upon completion of this plan, the MPO intends to keep the interactive map available on the homepage, allowing continued public access and engagement.

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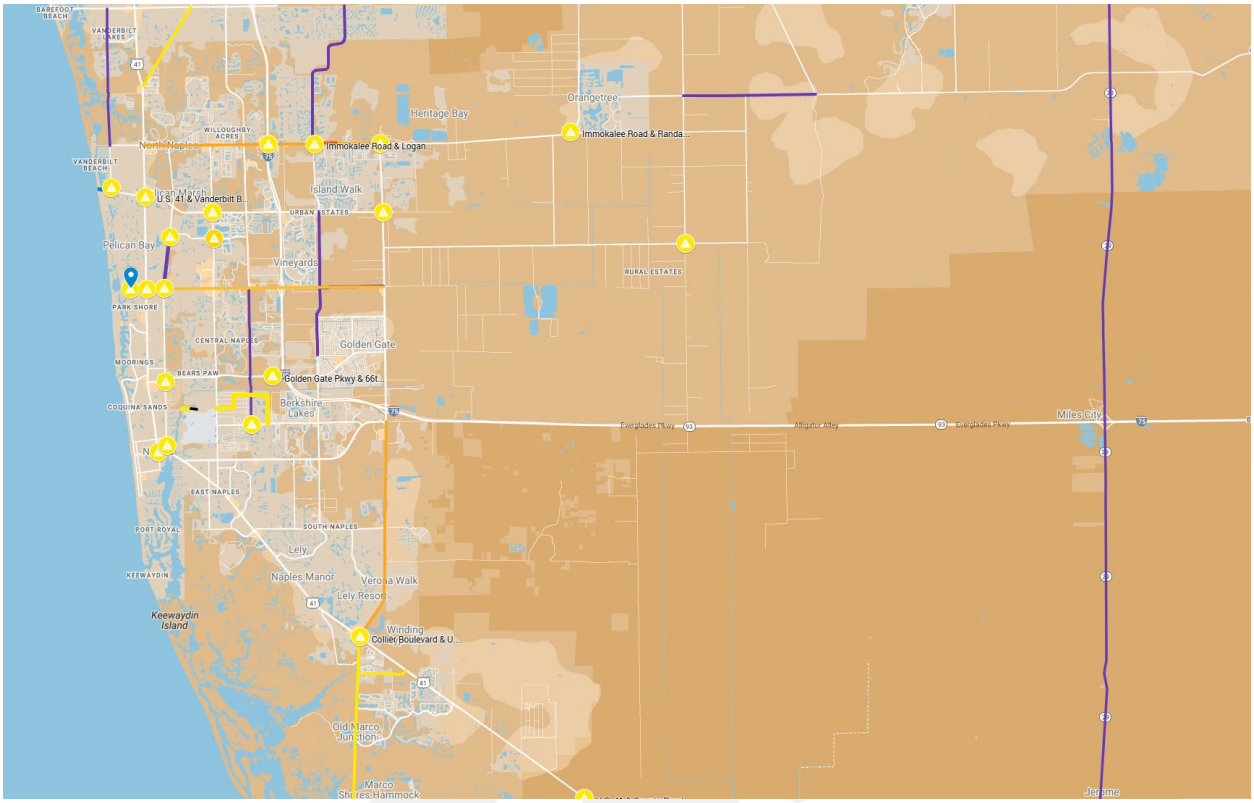


Figure 6: Interactive Map Showing Public Concerns from Survey 1

Online Survey

Two online surveys were conducted to assess the public's comfort level with walking and bicycling, as well as to identify areas of concern and desired improvements. The surveys featured a variety of questions related to bicycling and walking, with several allowing multiple responses and providing space for open-ended feedback. Overall, respondents rated the active transportation facilities in Collier County as fair but expressed ongoing safety concerns for both cyclists and pedestrians. A total of 316 responses were received.

One key question asked respondents to identify the most important improvements for making their community safer and more accessible for people walking and biking. The top three priorities were: more dedicated and protected bike lanes (76%), increased education and awareness campaigns (40%), and additional connecting sidewalks (32%), as shown in **Figure 7**.

Additional questions asked respondents to share their main concerns regarding the development of the plan. A total of 95% emphasized the need to prioritize and improve safety for cyclists and pedestrians in Collier

County. The next most common concern was the maintenance of existing paths and pedestrian facilities (37%), followed by potential impacts on current vehicular traffic flow (25%).

As shown in **Figure 7**, approximately 16% of respondents prioritized the maintenance of existing facilities, making it the fifth-highest concern. However, maintenance emerged as a recurring theme in the open-ended responses, where many participants cited issues such as debris, potholes, and other deficiencies in existing bike lanes. While it ranked fifth in the closed-ended questions, the volume of detailed feedback in the open-ended section highlights the community's strong concern for infrastructure upkeep. This emphasis underscores the need for continued maintenance and improvements, even though it was not ranked as a top priority in the quantitative results.

Respondents were also asked to identify the types of facilities they believed should be prioritized in the plan. The top three responses were: dedicated bike lanes (73%), shared use paths (72%), and safe crossing points, including intersections and mid-block crossings (52%). All survey results can be found in **Appendix B**.

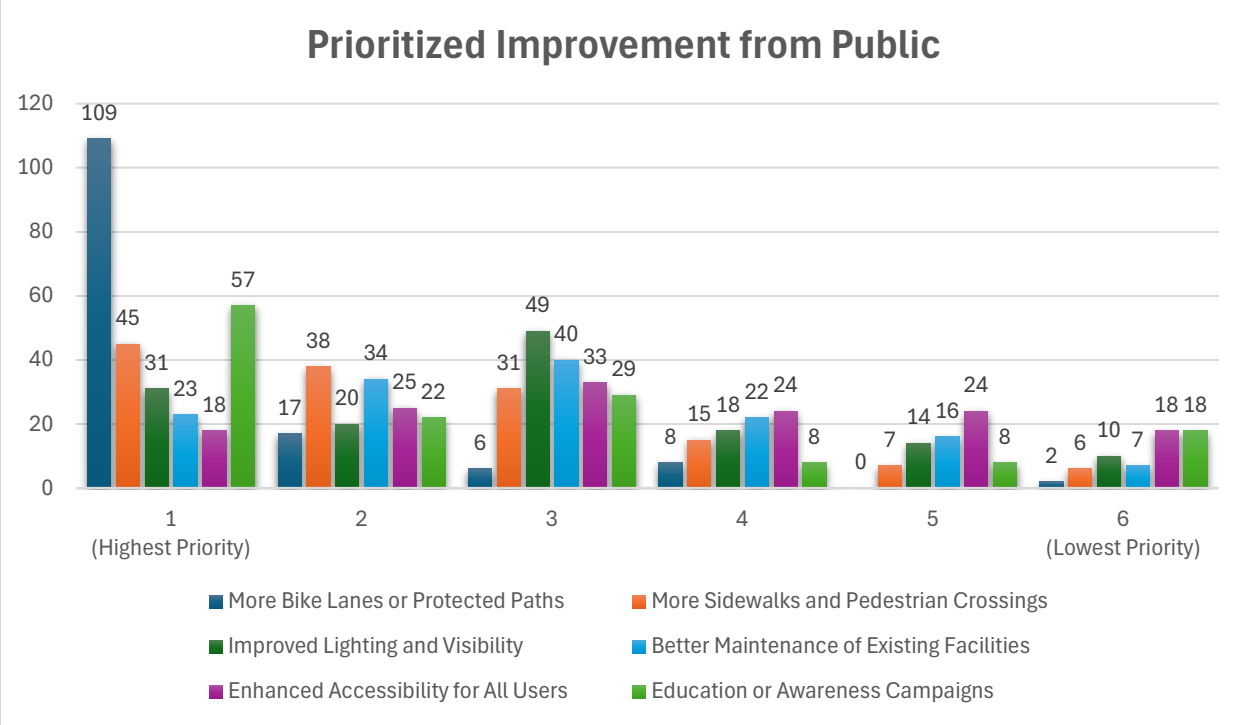


Figure 7: Prioritized Improvements Captured During a Public Survey

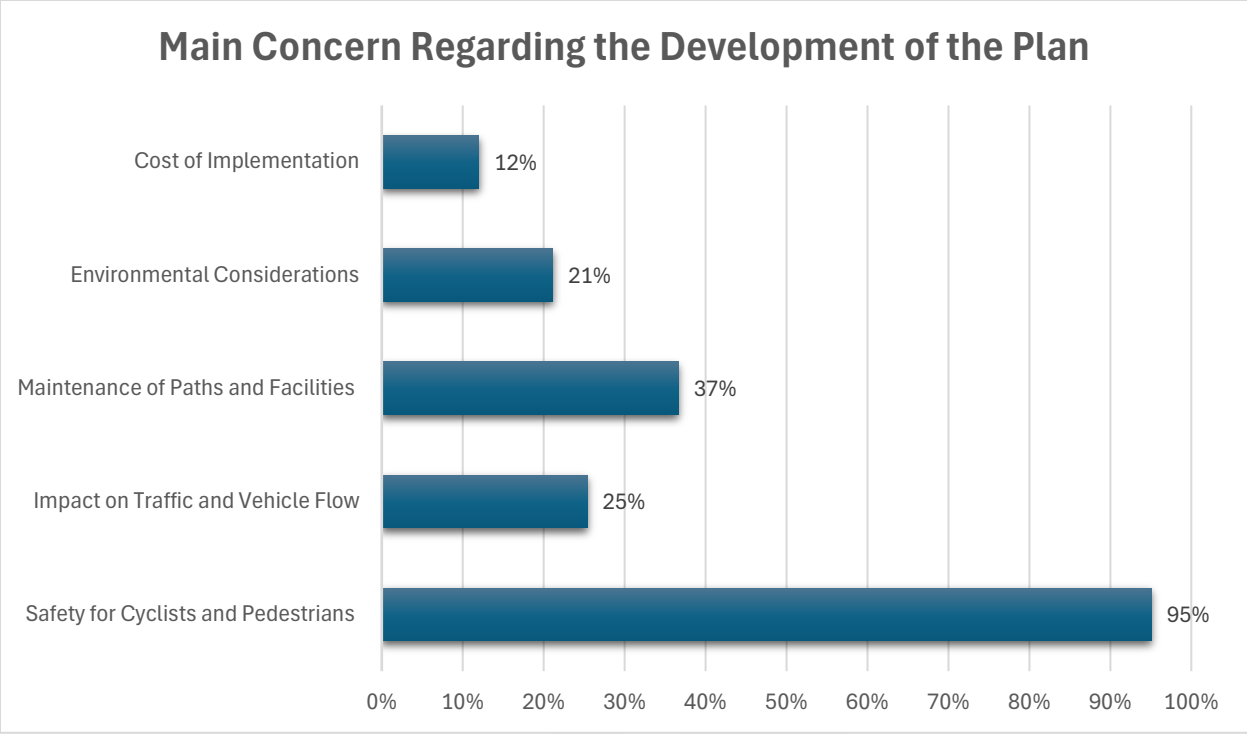


Figure 8: Main Concern for Master Plan Development Captured During a Public Survey

MPO Board and Advisory Committee Meetings

The MPO Board and its three advisory committees, the Technical Advisory Committee (TAC), Citizens Advisory Committee (CAC), and Bicycle and Pedestrian Advisory Committee (BPAC)—were actively involved throughout the Plan's development. These groups provided essential guidance and feedback during regular updates on the Plan's progress. All MPO meetings are open to the public, offering additional opportunities for public input during these sessions. Comments and recommendations from the advisory committees, as well as input from Collier County Transportation Planning, are documented and available for public viewing on the Collier MPO website, where all meeting records are accessible.

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SECTION 4 - VISION, GOALS, AND STRATEGIC OBJECTIVES

A clear vision is essential for guiding the plan's development, providing direction and purpose. It shapes the goals, objectives, and strategies, ensuring they align with the community's needs and priorities. To create this vision, the planning team reviewed the existing Bicycle-Pedestrian Master Plan (BPMP) as a baseline, explored similar local active transportation plans, and incorporated input from the public, MPO board, committees, and stakeholders. This collaborative process resulted in a vision that reflects a comprehensive approach to improving mobility and safety. The following section presents the vision and goals that will guide this plan.

Vision

"To create a safe and connected network of active transportation facilities in Collier County that promotes and encourages the use of bicycle and pedestrian pathways which support business and recreation for community access and well-being."

Safety, as emphasized in the 2019 plan, remains one of the most important areas of concern, with connectivity closely following as a key priority. These two pillars continue to serve as cornerstones for this plan, as public feedback indicated that improvements in these areas are still top priorities. Achieving a safe and well-connected network is essential to encouraging residents to utilize these facilities, providing direct benefits to users and creating broader community advantages. The vision, goals, and objectives outlined in this plan are consistent with priorities set forth in the 2045 Long-Range Transportation Plan (LRTP) and will be incorporated into the 2050 LRTP to ensure long-term alignment and support.

Goals

While considering the goals outlined in the 2019 Bicycle-Pedestrian Master Plan, the goals presented in **Table X** were developed through a comprehensive review of existing resources and a collaborative effort. This process involved examining similar regional active transportation plans and incorporating feedback from BPAC committee members during workshop opportunities. Initial goals and priorities were gathered from their input, and the planning team refined and consolidated these into seven key goals. After further coordination with MPO staff and the BPAC committee, the final goals for this plan are as follows:

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Table 5: Bicycle & Pedestrian Master Plan Goals and Strategies

Goal	Strategy
Safety	Promote education and enforcement as the primary strategies, followed by engineering solutions, to enhance safety for cyclists, pedestrians, and micromobility users.
Connectivity	Develop a seamless network that connects key points of interest, ensuring accessibility and ease of use for all modes of transportation.
Economy	Develop bicycle-pedestrian facilities to support local businesses, attract tourists, and provide affordable transportation options, contributing to economic growth and community vitality.
Education	Promote awareness, responsible use, and understanding of bicycle and pedestrian facilities through educational programs, outreach efforts, and community engagement, empowering users with the knowledge to navigate the network confidently and effectively.
Efficiency	Support the design, implementation, and ongoing maintenance of bicycle and pedestrian facilities that encourage shifts in travel behavior, reduce dependence on motor vehicles, and alleviate roadway congestion by promoting walking and biking as preferred modes of transportation.
Health	Design pathways that encourage active transportation and support public health initiatives.
Interactive Map	Create and maintain a continuously updated, interactive map that is accessible for cyclists and pedestrians to download and share, serving as a valuable resource for navigation and planning.

Though there are similar goals in this plan compared to its predecessor, the importance of safety and connectivity still holds a prominent role. However, new strategies have been incorporated to address the needs and challenges of today, such as the inclusion of micromobility options. Additionally, this plan introduces a new goal: the creation of an interactive map. The purpose of this map is to enhance connectivity within the network while providing residents with easy access to valuable resources and information. To ensure its continued relevance, the map will be regularly updated, allowing for ongoing improvements and engagement with the active transportation infrastructure.

Objective and Strategies

1. **Safety -** Promote education and enforcement as the primary strategies, followed by engineering solutions, to enhance safety for cyclists, pedestrians, and micromobility users.

   Objectives:
   - Reduce the number of bicycles, pedestrian, and micromobility-related KSI crashes in high-risk areas.

   Strategies:
   - Prioritize shared use paths and separated bike lanes where feasible and continue improving lower-tier bike-ped facilities through roadway improvement projects.
   - Increase lighting and visibility at intersections and crossings.
   - Conduct safety education campaigns targeting drivers, cyclists, and pedestrians.

2. **Connectivity -** Develop a seamless network that connects key points of interest, ensuring accessibility and ease of use for all modes of transportation.

   Objectives:
   - Create a well-connected network of facilities linking residential areas to schools, parks, businesses, and public transit.

   Strategies:
   - Identify and eliminate gaps in the existing network to improve access to key destinations and enhance last mile connections to transit stops.
   - Establish clear wayfinding signage for all modes of active transportation.
   - Prioritize projects that improve connections between transit-dependent areas, transit stops, and the broader bicycle and pedestrian network.

3. **Economy -** Develop bicycle-pedestrian facilities to support local businesses, attract tourists, and provide affordable transportation options, contributing to economic growth and community vitality.

   Objectives:
   - Enhance economic activity by making bicycle-pedestrian routes accessible to business districts and tourist areas.

   Strategies:

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- Identify routes and select projects that connect cultural landmarks, shopping centers, and downtown areas.
- Collaborate with local businesses and agencies to identify opportunities to implement bicycle- and pedestrian-friendly amenities such as bike racks, seating, shade, and repair stations.
- Collaborate with local agencies to identify projects that improve pedestrian access to employment centers and recreational destinations.

4. **Education –** Promote awareness, responsible use, and understanding of bicycle and pedestrian facilities through educational programs, outreach efforts, community engagement, empowering users with the knowledge to navigate the network confidently and effectively.

   Objectives:
   - Reduce crashes and unsafe behaviors involving bicyclists and pedestrians by increasing user knowledge and awareness.

   Strategies:
   - Create simple, easy-to-understand safety materials and distribute them in schools, libraries, community centers, and online.
   - Partner with local organizations to deliver community-based education and outreach activities.
   - Use social media, public signs, and outreach at community events to share safety tips and promote responsible behavior.

5. **Efficiency –** Support the design, implementation and ongoing maintenance of bicycle and pedestrian facilities that encourage shifts in travel behavior, reduce dependence on motor vehicles, and alleviate roadway congestion by promoting walking and biking as preferred modes of transportation.

   Objectives:
   - Encourage active transportation to decrease vehicle use, reduce traffic congestion, and enhance the overall performance of the transportation network.

   Strategies:
   - Identify, prioritize, and promote safe and attractive routes for walking, biking, and micromobility through planning and coordination efforts.
   - Implement initiatives to reduce short car trips by enhancing and promoting alternative transportation options.
   - Promote the importance of maintaining and upkeeping county bicycle and pedestrian facilities to ensure their continued safety, accessibility, and effectiveness.

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6. **Health -** Promote pathways that encourage active transportation and support public health initiatives.

Objectives:

- Increase opportunities for residents to engage in active transportation and improve public health.

Strategies:

- Identify and prioritize projects that foster connected communities, encouraging physical activity through accessible transportation options.
- Focus on closing gaps in pathways that connect recreational areas, healthcare facilities, and schools, providing viable alternative travel options.
- Collaborate with health organizations to highlight the benefits of active transportation.

7. Interactive Map - Create and maintain a continuously updated, interactive map that is accessible for cyclists and pedestrians to download and share, serving as a valuable resource for navigation and planning.

Objectives:

- Provide residents and visitors with an accessible tool to navigate and plan routes on the bicycle-pedestrian network.

Strategies:

- Ensure interactive map layers are systematically maintained and updated to provide accurate, reliable, and current information for all users.
- Incorporate data layers showcasing connectivity to public transit, schools, and key destinations.
- Allow and encourage users to report issues or suggest improvements directly to MPO staff to support a continuously updated and responsive user experience.

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SECTION 5 - ASSESSMENT OF NEEDS

Identification of Network Needs

To develop a comprehensive understanding of the infrastructure gaps and needs within Collier County's bicycle and pedestrian network, a systematic approach was employed. This process focused on identifying deficiencies and opportunities along the county's collector and arterial roads through the following methods:

A thorough review of existing plans, policies, and studies was conducted to ensure alignment with local, regional, and state transportation goals. Key documents reviewed included the current municipal master plans for the City of Naples, Everglades City, and Marco Island, as well as the previous Bicycle and Pedestrian Master Plan. Additionally, the MPO's FY2025-2029 Transportation Improvement Program, along with the Capital Improvement Programs for the cities of Naples, Marco Island, and Everglades City, as well as Collier County's 2023 Annual Updated and Inventory Report and Capital Improvement Element for County Roads & Bridge Facilities, were reviewed to ensure that planned and programmed transportation investments were considered and integrated into the overall planning process. This step provided a foundational understanding of existing priorities, identified planned projects, and ensured consistency with broader transportation objectives. Reviewing the previous master plan helped establish the baseline for the county's bicycle and pedestrian infrastructure and provided a better understanding of past prioritized locations.

An inventory of existing bicycle and pedestrian facilities along collector and arterial roads was completed to establish baseline conditions. This effort documented facility types, such as bike lanes, shared-use paths (SUPs), sidewalks, and paved shoulders. To achieve this, maps of the existing facilities were reviewed and commented on by local agencies, stakeholders, and the community through extensive public outreach. This iterative process ensured a thorough analysis of the existing network and provided a solid starting point for identifying gaps and deficiencies.

Engaging the community was a critical component of identifying needs and gaps. Input was gathered through public surveys, workshops, and stakeholder meetings to understand the concerns, preferences, and priorities of residents, business owners, and advocacy groups. This feedback provided valuable insights into barriers to walking and cycling, areas of high demand, and desired improvements, ensuring that the Master Plan reflects the needs of the community it serves.

To comprehensively identify missing links and deficiencies in the bicycle and pedestrian network, GIS (Geographic Information System) software was used to analyze the county's infrastructure inventory. This process involved mapping existing facilities, including bike lanes, shared-use paths, sidewalks, and paved shoulders, across Collier County's arterial and collector roads.

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A comprehensive analysis was conducted using data overlays to identify gaps in the bicycle-pedestrian network. This included mapping all existing bicycle-pedestrian facilities, as well as programmed facilities that are anticipated for completion and planned future facilities. This approach provides a clear understanding of current infrastructure and upcoming projects, helping to identify areas of deficiency and inform future planning efforts.

By using GIS tools, incorporating input from local agencies, stakeholders, and the community, and factoring in programmed facilities, a comprehensive and data-driven assessment of Collier County's bicycle and pedestrian infrastructure was conducted. This approach identified current deficiencies, highlighted gaps in connectivity, and accounted for planned improvements. The results of the gap analysis and public outreach are summarized below.

Identified Facilities Through Public Outreach

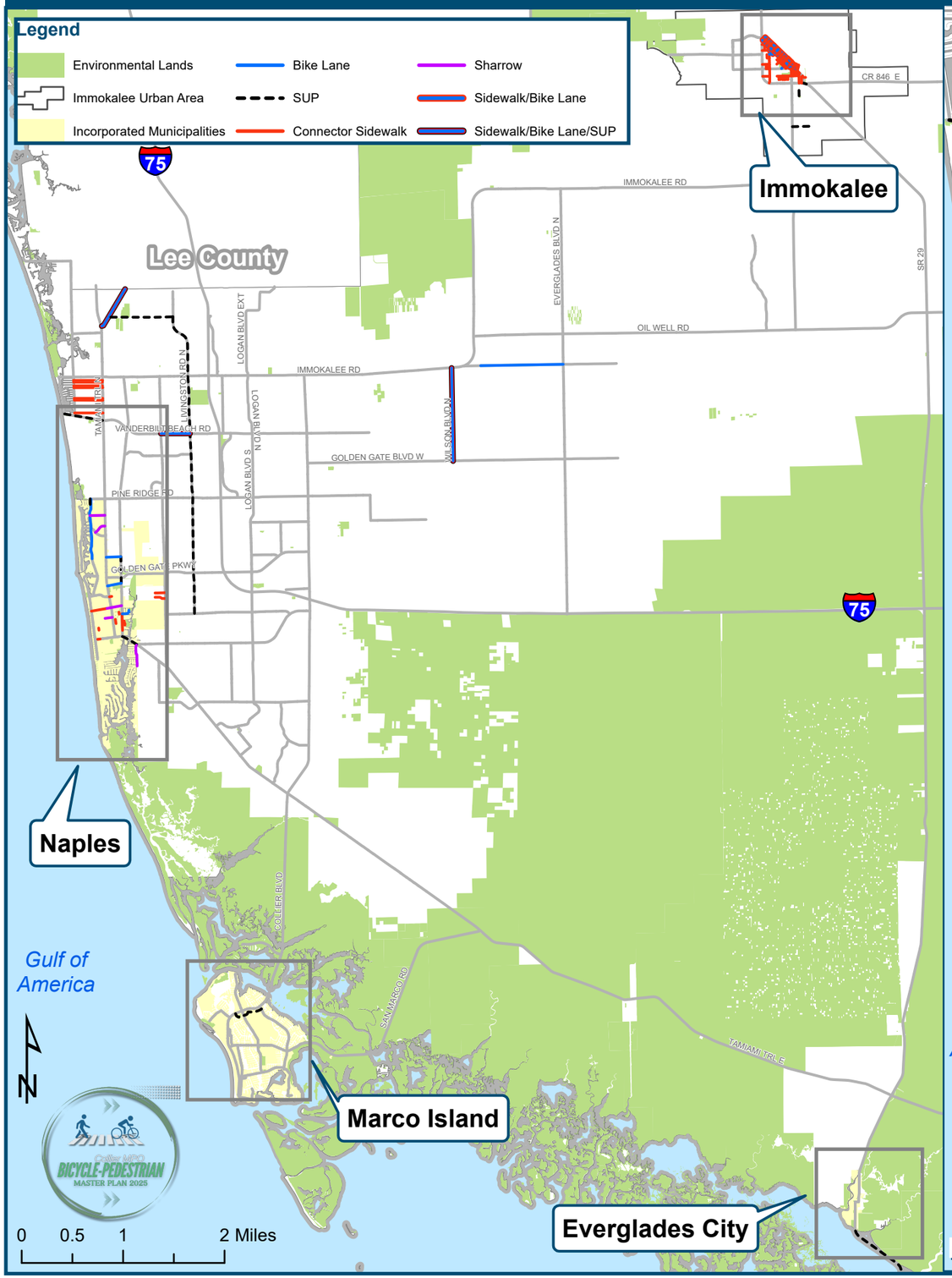
The identification of bicycle and pedestrian needs within the Collier County Bicycle-Pedestrian Master Plan is informed by a combination of public input, data analysis, and an updated gap assessment. The following list reflects locations and corridors frequently noted during public outreach as areas with potential for improved bicycle and pedestrian access, safety, or connectivity. While these locations were identified as important by the public, they do not represent committed projects.

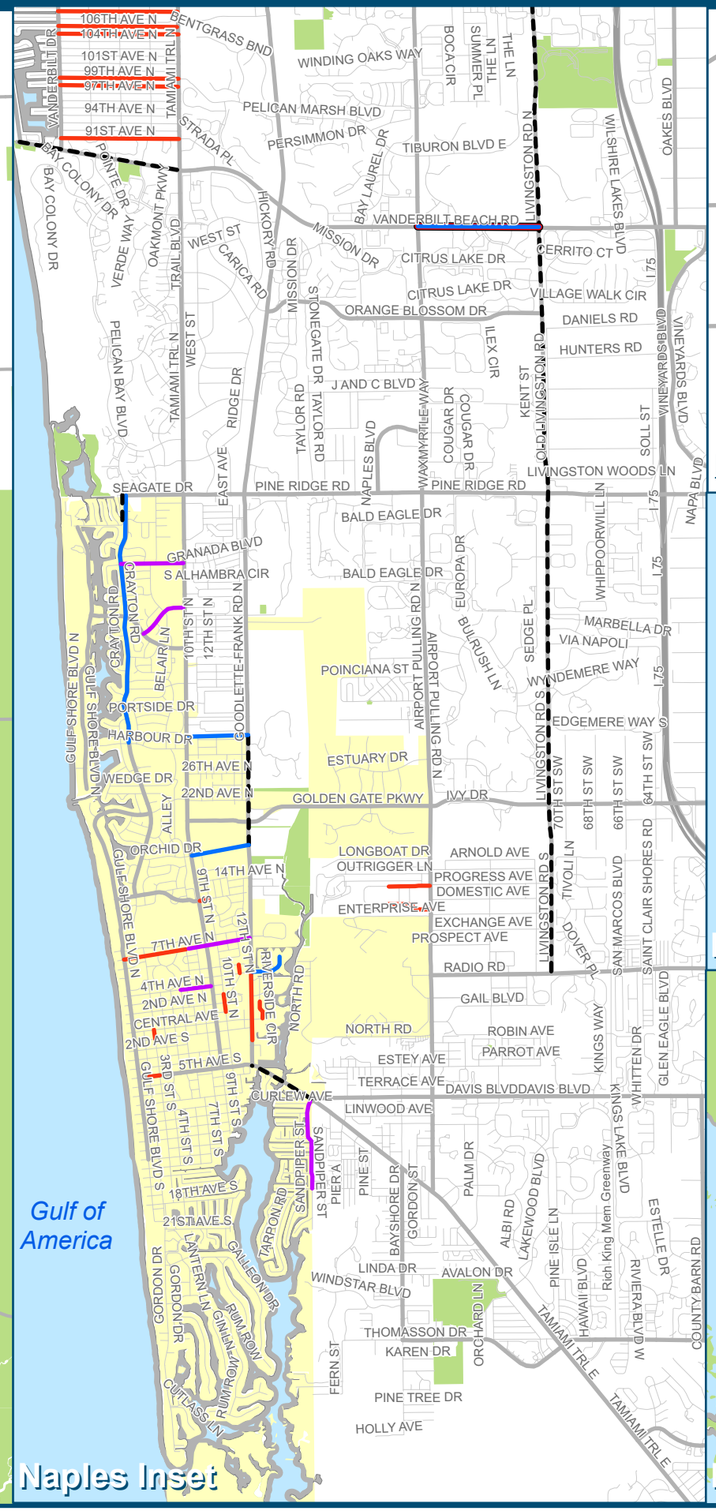
To provide additional context, the accompanying table includes a column with MPO analysis to clarify the status of each location and how it relates to current plans, priorities, and existing infrastructure. These identified needs will be further evaluated using established criteria to determine their alignment with the goals of the Master Plan and their potential for inclusion in the prioritized project list as funding or opportunities become available.

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Exhibit 2: Planned Facilities Inventory

Bicycle & Pedestrian Master Plan





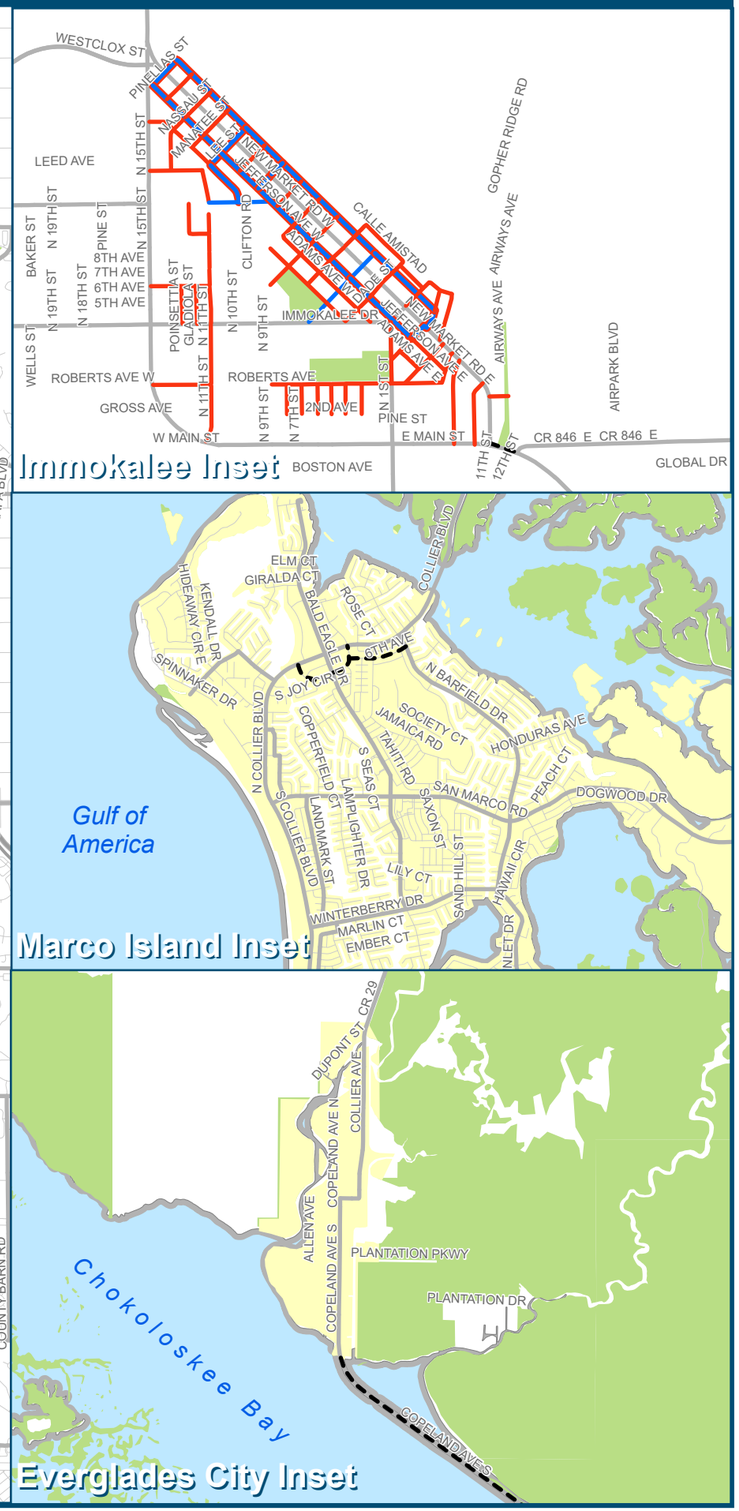


Exhibit 3: Existing + Planned Facilities Inventory

Bicycle & Pedestrian Master Plan

Legend

- Environmental Lands
- Incorporated Municipalities
- Immokalee Urban Area
- Trail Alignment
- SUP
- Connector Sidewalk
- Paved Shoulder
- Bike Lane
- Greenway
- Low Speed/Low Volume
- Sharrow
- Sidewalk/Bike Lane
- Bike Lane/SUP
- Paved Shoulder/SUP
- Sidewalk/Bike Lane/SUP
- Sidewalk/Paved Shoulder

Planned Facilities

- Bike Lane
- SUP
- Connector Sidewalk
- Sharrow
- Sidewalk/Bike Lane
- Sidewalk/Bike Lane/SUP

Lee County

Immokalee

Naples

Marco Island

Everglades City

Gulf of America

0 0.5 1 2 Miles

Immokalee Inset

Marco Island Inset

Naples Inset

Everglades City Inset

Chokoloskee Bay

Exhibit 4: Programmed Facilities FY 19-29

Bicycle & Pedestrian Master Plan

Legend

- Environmental Lands
- Immokalee Urban Area
- Incorporated Municipalities
- Connector Sidewalk
- SUP
- Bike Lane/Sidewalk
- Bike Lane/SUP
- Sidewalk/Paved Shoulder
- Bike Lane/Sidewalk/SUP

Immokalee

Lee County

Naples

Marco Island

Everglades City

Gulf of America

0 0.5 1 2 Miles

Naples Inset

Immokalee Inset

Marco Island Inset

Everglades City Inset

Table 6: Public-Requested Bicycle and Pedestrian Facilities with MPO Responses and Updates

Road	From	To	Distance (mi)	Facility Type	Sourced	MPO Analysis & Response
Pine Ridge Rd	Logan Blvd S	Collier Blvd	1.89	Bike Lane	Public Comment	TRIP/CIGP applications 2025
Goodlette-Frank Rd	Pine Ridge Rd	Orange Blossom Dr	1.52	Bike Lane	Public Comment	Existing facilities, high-cost improvement, consider all options if road widened in future
San Marco Rd	Goodland Dr	US-41	6.57	Bike Lane	Public Comment	Collier to Polk PD&E
SR 29	US-41	New Market Rd E	37.11	Bike Lane	Public Comment	
Vanderbilt Dr	111th Ave N	Woods Edge Pkwy	3.02	Bike Lane	Public Comment	Existing facilities: shoulders and SUP on west side; Will consider all options if the road is widened in the future
Logan Blvd	Immokalee Rd	Lee County Line	3.75	Bike Lane	Public Comment	Existing facilities, high-cost improvement, low priority, will consider all options if the road is widened in the future
Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	2.21	Bike Lane	Public Comment	
Santa Barbara Blvd	Coranado Pkwy	Green Blvd	1.13	Bike Lane	Public Comment	TRIP/CIGP applications 2025
Logan Blvd N	Green Blvd	Pine Ridge Rd	0.89	Bike Lane	Public Comment	Existing facilities, high-cost improvement, consider all options if the road is widened in the future

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Livingston Rd	Radio Rd	Pine Ridge Rd	3.99	Bike Lane	Public Comment	Livingston FPL Easement PDE
Oil Well Rd	Everglades Blvd	Oil Well Grade Rd	3.91	Bike Lane	Public Comment	B/P improvements included in County road widening project
S Collier Blvd	San Marco Rd	Swallow Ave	2.32	Bike Lane	Public Comment	Refer to Marco Island Section
Swallow Ave	S Collier Blvd	Collier Ct	0.48	Bike Lane	Public Comment	
Seagrape Dr	Swallow Ave	Cul-de-Sac	0.77	Bike Lane	Public Comment	
Bald Eagle Dr	N Collier Blvd	San Marco Rd	1.32	Bike Lane	Public Comment	
Manatee Rd	Collier Blvd	US-41	1.48	Bike Lane	Public Comment	Included in FDOT project (deferred); & Collier to Polk Trail PDE
Pine Ridge Rd	US-41	Logan Blvd S	5.14	Bike Lane	Public Comment	B/P improvements included in County road widening project.
Vanderbilt Beach Rd	Gulfshore Dr	Vanderbilt Dr	0.35	Bike Lane	Public Comment	Wider SUP in DTWP FY26-30
Collier Blvd	City Gate Blvd	Golden Gate Blvd	1.1	Bike Lane	Public Comment	B/P facilities included in County road widening project
Collier Blvd	Golden Gate Blvd	Green Blvd	1.05	Bike Lane	Public Comment	B/P facilities included in County road widening project
Vanderbilt Dr	Vanderbilt Beach Rd	Bluebill Ave	1.34	Bike Lane	Public Comment	SW on east side in DTWP FY26-30
Green Blvd	Logan Blvd S	Collier Blvd	2	Bike Lane	Public Comment	Consider all options for future road widening
Orange Blossom	Goodlette-Frank Rd N	Airport-Pulling Rd N	1.36	Bike Lane	Public Comment	Cost prohibitive and unlikely to gain public support if addition requires widening road

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Old US-41	US-41	Lee County Line	1.55	Bike Lane, SUP	Public Comment	Included in FDOT PDE & BERT ROW acquisition as part of SUN Trail Network
95th Ave	Vanderbilt Dr	US-41	0.98	Sidewalk	Public Comment	New sidewalks in Naples Park remain controversial; lack broad public support
101st Ave N	Vanderbilt Dr	US-41	0.99	Sidewalk	Public Comment	
100th Ave N	Vanderbilt Dr	US-41	0.99	Sidewalk	Public Comment	
97th Ave N	Vanderbilt Dr	US-41	0.99	Sidewalk	Public Comment	
96th Ave N	Vanderbilt Dr	US-41	0.99	Sidewalk	Public Comment	
94th Ave N	Vanderbilt Dr	US-41	0.98	Sidewalk	Public Comment	
93rd Ave N	Vanderbilt Dr	US-41	0.98	Sidewalk	Public Comment	
92nd Ave N	Vanderbilt Dr	US-41	0.98	Sidewalk	Public Comment	
102nd Ave N	Vanderbilt Dr	US-41	1	Sidewalk	Public Comment	
103rd Ave N	Vanderbilt Dr	US-41	1	Sidewalk	Public Comment	
104th Ave N	Vanderbilt Dr	US-41	1	Sidewalk	Public Comment	

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107th Ave N	Vanderbilt Dr	US-41	1.02	Sidewalk	Public Comment	
110th Ave N	Vanderbilt Dr	US-41	1	Sidewalk	Public Comment	
US-41	San Marco Rd	Newport Dr	5.68	SUP	Public Comment	B/P safety improvements added to BPMP; MPO policy does not support SUP.
Collier Blvd	Mainsail Dr	Manatee Rd	3.46	SUP	Public Comment	Collier to Polk Trail PD&E
Mercantile Ave	Livingston Rd	Industrial Blvd	0.39	SUP	Public Comment	Shared/low-speed road indicates SUP not needed; SUP is cost-prohibitive, lacks available ROW, and signage installation is a feasible alternative.
Industrial Blvd	Mercantile Ave	Enterprise Ave	0.39	Shared/Low Speed	Public Comment	
Enterprise Ave	Industrial Blvd	Airport-Pulling Rd N	0.49	Shared/Low Speed	Public Comment	
Corporate Flight Dr	Airport-Pulling Rd N	End	0.73	SUP	Public Comment	Refer to Naples
SUP along Corporate Flight Drive	Corporate Flight Dr	Gordon River Greenway	0.24	SUP	Public Comment	
North of Wiggins Pass	Tarpon Cove	Gateway Shoppes North	0.16	Sidewalk	Public Comment	The need is clear. But it may not be financially feasible.
Agusta Blvd	Rattlesnake Hammock Rd	Gage Ln	0.04	Sidewalk	Public Comment	

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Identified Facilities Through Gap Analysis

The first grouping of identified facilities in the table below involves collector and arterial roadways—major corridors that connect multiple communities and support higher traffic volumes. This includes regionally identified facilities that serve as key connectors within the broader transportation network.

The second grouping includes residential streets that were identified as potential opportunities for bicycle and pedestrian improvements due to their proximity to schools, parks, and areas with higher reliance on public transportation. These locations offer opportunities to improve access to community destinations and enhance connectivity for pedestrians and bicyclists where implementation may be more feasible.

The third grouping includes segments located near or within a 0.75-mile radius of transit-dependent areas. These gaps were identified by mapping the influence areas around transit-dependent populations and evaluating the proximity of those areas to existing public bus stops. Segments were considered gaps if they lacked any existing bicycle or pedestrian facilities, or if the only facility present was a minimal paved shoulder.

In addition to the identified facilities in the table below for local roads in unincorporated Collier County, the local road needs assessment conducted as part of the 2019 Bicycle and Pedestrian Master Plan remains eligible for consideration and is included in **Appendix C**.

Table 7: Identified Facilities on Collector & Arterial Roadways through Gap Analysis

Road	From	To	Distance (mi)	Facility Type	Sourced
Everglades Blvd N	Oil Well Rd	Immokalee Rd	5	No Bike/Ped Facility	Gap Analysis
Oil Grade Rd	Oil Well Rd	Immokalee Rd	5.6	No Bike/Ped Facility	Gap Analysis
Camp Keais Rd	Oil Well Rd	Pacific Grade Rd	1.5	No Bike/Ped Facility	Gap Analysis
Oil Well Rd	Pacific Grade Rd	SR-29	3.7	No Bike/Ped Facility	Gap Analysis
Everglades Blvd N	14th Ave NE	Golden Gate Blvd E	1.8	No Bike/Ped Facility	Gap Analysis
E Main St	New Market Rd E	Lake Trafford Rd	2.28	No Bike/Ped Facility	CAC Comment

Table 8: Regional Trail Connectivity Identified Facilities by Gap Analysis & Public Comment

Road	From	To	Distance (mi)	Facility Type	Sourced
SUP along Corporate Fight Drive	Corporate Flight Drive	Gordan River Greenway	0.2	SUP	Public Comment & Connects Gordon River/Rich King Greenways
Rich King Greenway Extension FPL easement	North of Radio Rd	Livingston Rd	1.3	SUP	Public Comment & Connects Gordon River/Rich King Greenways
Mercantile Ave	Livingston Rd	Industrial Blvd	0.4	Shared/Low Speed	Public Comment & Connects Gordon River/Rich King Greenways
Industrial Blvd	Mercantile Ave	Enterprise Ave	0.4	Shared/Low Speed	Public Comment & Connects Gordon River/Rich King Greenways
Enterprise Ave	Industrial Blvd	Airport-Pulling Rd N	0.5	Shared/Low Speed	Public Comment & Connects Gordon River/Rich King Greenways
Corporate Flight Dr	Airport-Pulling Rd	End of paved road	0.7	Shared/Low Speed	Public Comment & Connects Gordon River/Rich King Greenways
Collier Blvd	Mainsail Dr	Manatee Rd	3.5	SUP	Public Comment & Collier to Polk Trail Segment

Bonita Beach Rd	Old US-41	Bonita Beach in Lee County and Barefoot Beach in Collier County	4.1	Sidewalks only	Gap Analysis Gulf Coast Trail
US-41	San Marco Rd	SR/CR-29	52.0	Buffered bike lanes	Gap Analysis
San Marco Rd	Goodland Dr	US-41	6.5	No Bike/Ped Facility	Public Comment & Gap Analysis Collier to Polk Trail
SUP along Corporate Flight Dr	Corporate Flight Dr	River Reach Dr	0.25	SUP	CAC Comment

Table 9: Identified Facilities on Local (residential) Streets Through Gap Analysis

Road	From	To	Distance (mi)	Facility Type	Sourced
Confederate Dr	US-41	McCarty St	0.4	No Bike/Ped Facility	Gap Analysis
Alabama Ave	McCarty St	Warren St	0.1	No Bike/Ped Facility	Gap Analysis
Warren St	Floridian Ave	Alabama Ave	0.3	No Bike/Ped Facility	Gap Analysis
Warren St	Carolina Ave	St Andrews Blvd	0.3	No Bike/Ped Facility	Gap Analysis
McCarty St	Floridian Ave	Carolina Ave	0.4	No Bike/Ped Facility	Gap Analysis
Dixie Dr	Confederate Dr	Carolina Ave	0.5	No Bike/Ped Facility	Gap Analysis

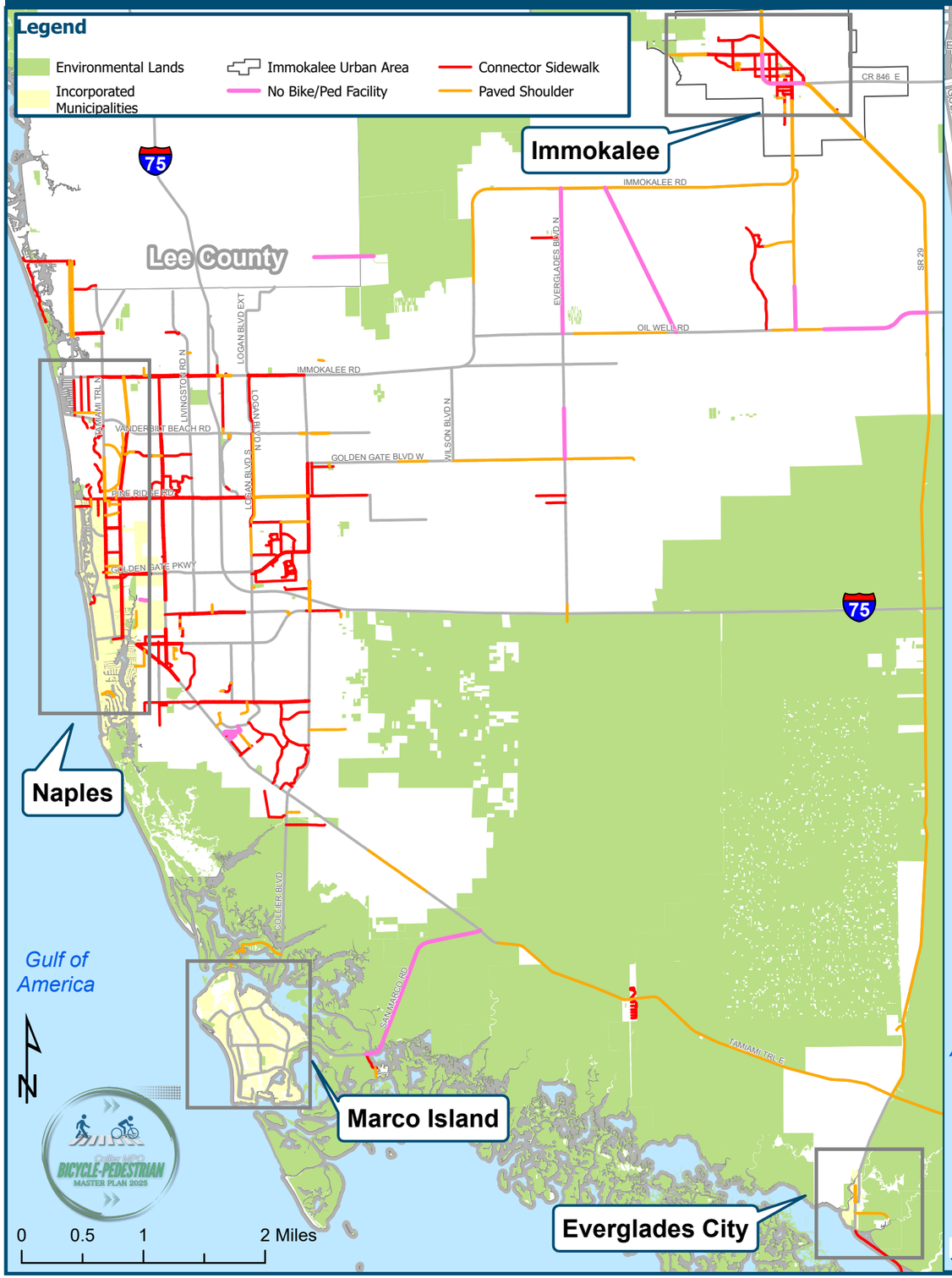
Identified Network Gaps Near Transit-Dependent Areas (0.75-Mile Radius)					
Road	**From**	**To**	**Distance (mi)**	**Facility Type**	**Notes**
Taylor Ter	Lake Trafford Rd	Miraham Dr	0.19	No Bike/Ped Facility	Sidewalk Need
Miraham Dr	Taylor Ter	Miraham Ter	0.36	No Bike/Ped Facility	Sidewalk Need

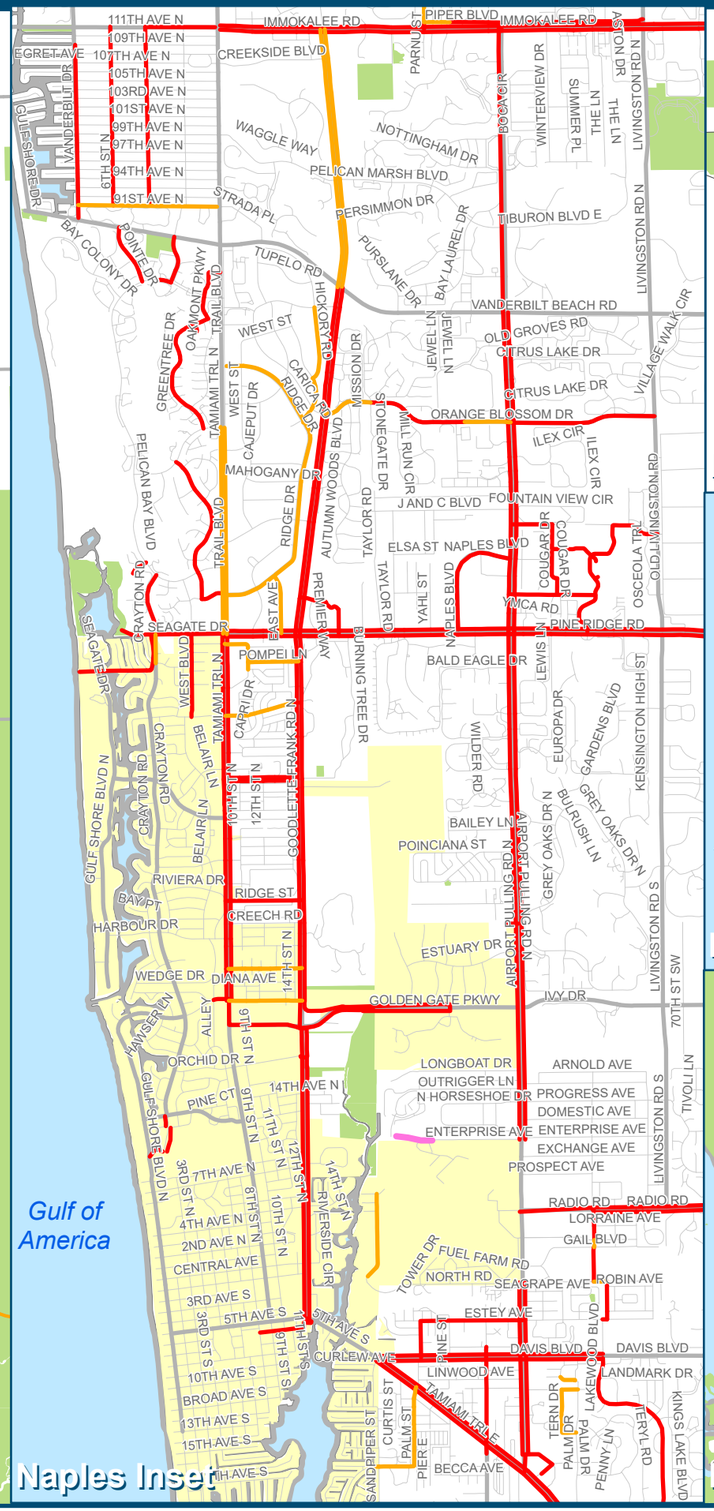
Miraham Ter	Miraham Dr	Lake Trafford Rd	0.19	No Bike/Ped Facility	Sidewalk Need
CR 846	E Main St	Dupree Rd	3.51	No Bike/Ped Facility	Sidewalk Need
S 1st St	Carver Ave	School Rd	0.16	Paved Shoulder Only	Sidewalk Need
S 1st St	School Rd	Bethune Dr	0.25	Paved Shoulder Only	Sidewalk Need
S 1st St	Bethune Dr	Stockade Rd	0.5	Paved Shoulder Only	Sidewalk Need
SR 29	Farm Worker Way	Agriculture Way	0.33	Paved Shoulder Only	Sidewalk Need
Eustis Ave E	S 1st St	School Dr	0.25	No Bike/Ped Facility	Sidewalk Need
Jones St	Eustis Ave E	E Delaware Ave	0.15	No Bike/Ped Facility	Sidewalk Need
Collier Blvd	City Gate Dr	City Gate Blvd N	0.17	Paved Shoulder Only	Sidewalk Need
Santa Barbara Blvd	Coronado Pkwy	Hunter Blvd	0.58	Paved Shoulder Only	Sidewalk Need (East Side)
Pine Ridge Rd	Logan Blvd S	Collier Blvd	1.89	Paved Shoulder Only	Sidewalk or Bike Lane Needed. This segment has transit stops at both ends, but residents along it have no safe way to access them—only a paved shoulder is available.

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Exhibit 5: Existing Network Gap Analysis

Bicycle & Pedestrian Master Plan





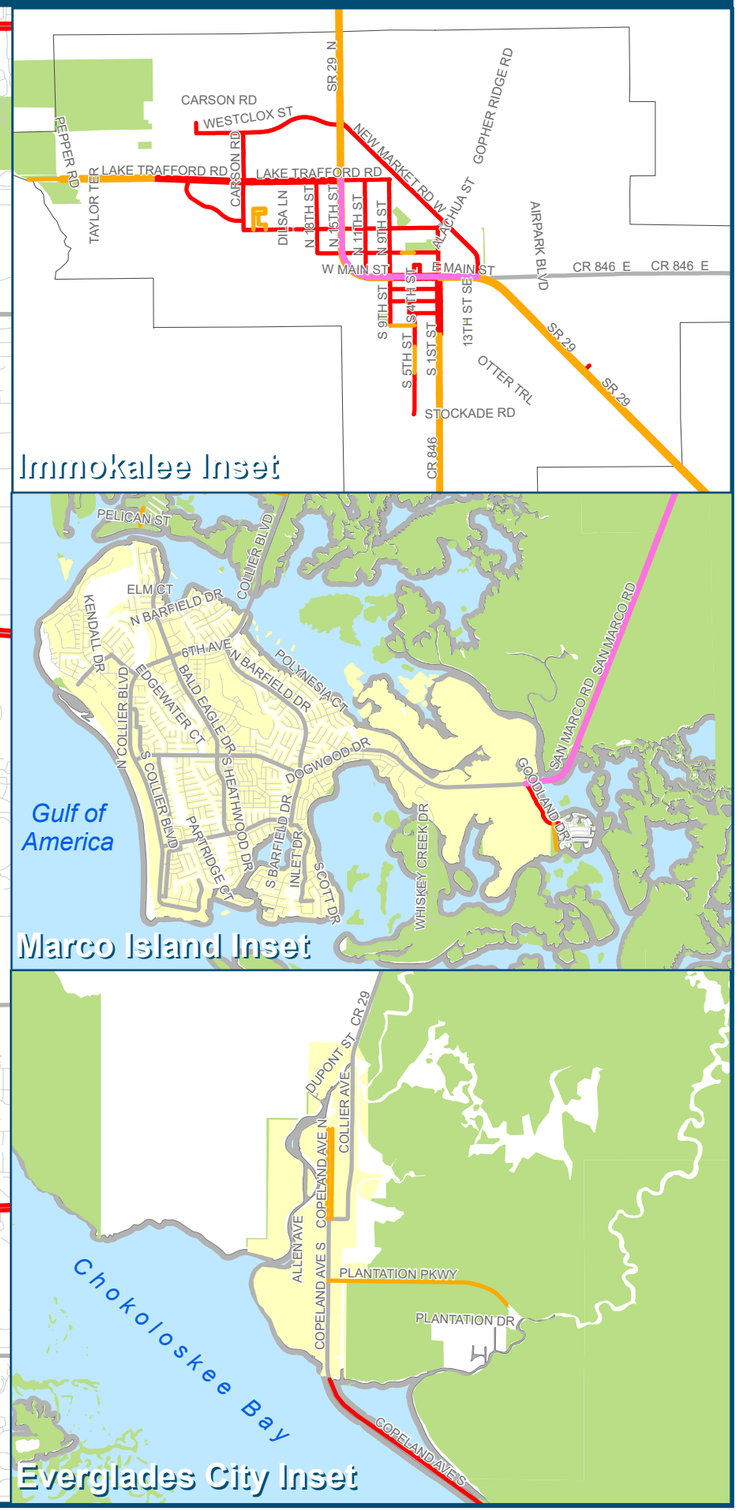


Exhibit 6: Existing Network Gap Analysis With Public Comment

Bicycle & Pedestrian Master Plan

Legend

- Environmental Lands
- Immokalee Urban Area
- Incorporated Municipalities

Public Comment Facility Request
- Bike Lane
- Bike Lane, SUP
- SUP
- Sidewalk
- Shared/Low Speed

Network Facility Gaps
- No Bike/Ped Facility

Immokalee

Lee County

Naples

Marco Island

Everglades City

Gulf of America

0 0.5 1 2 Miles

Naples Inset

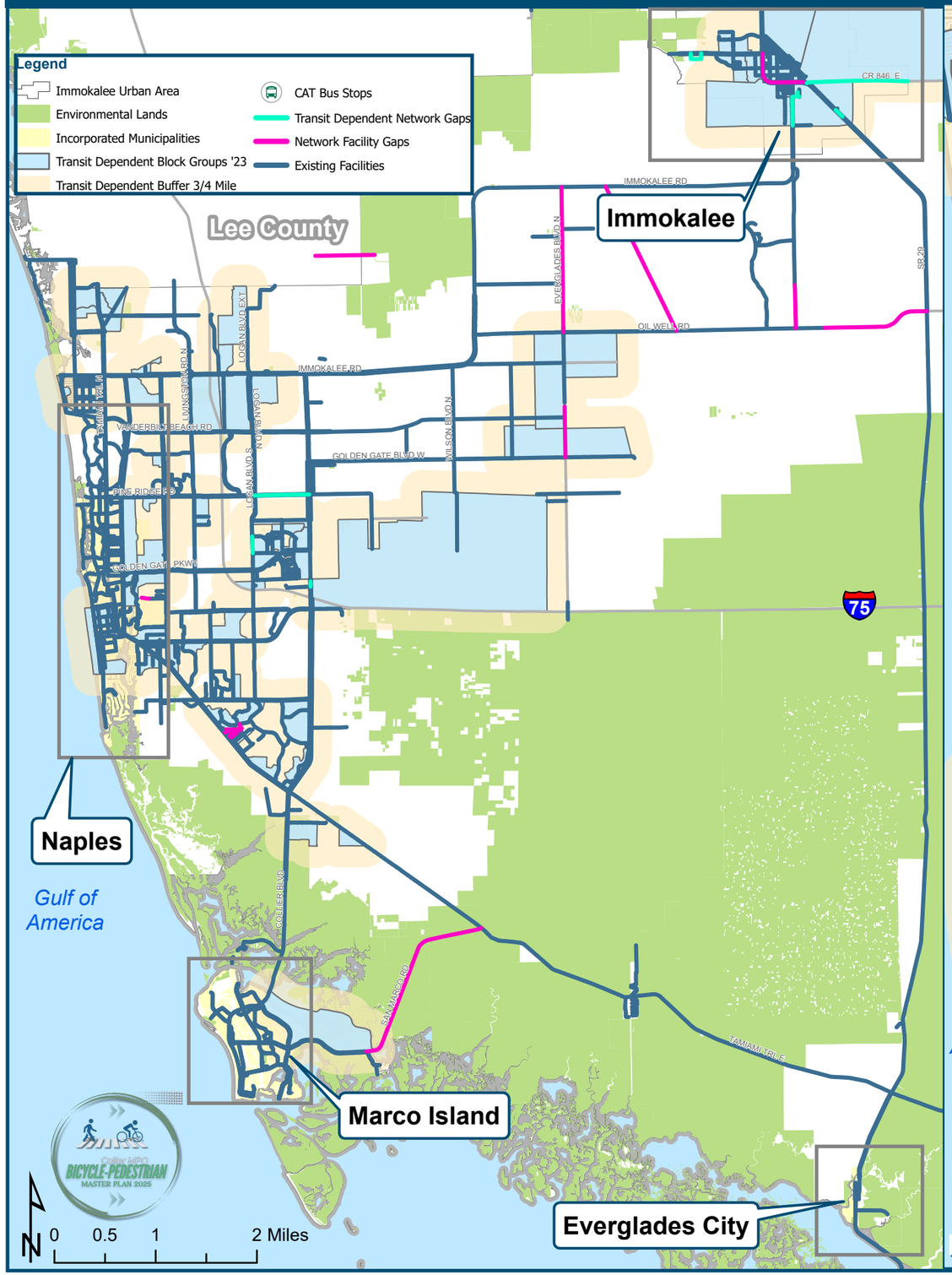
Immokalee Inset

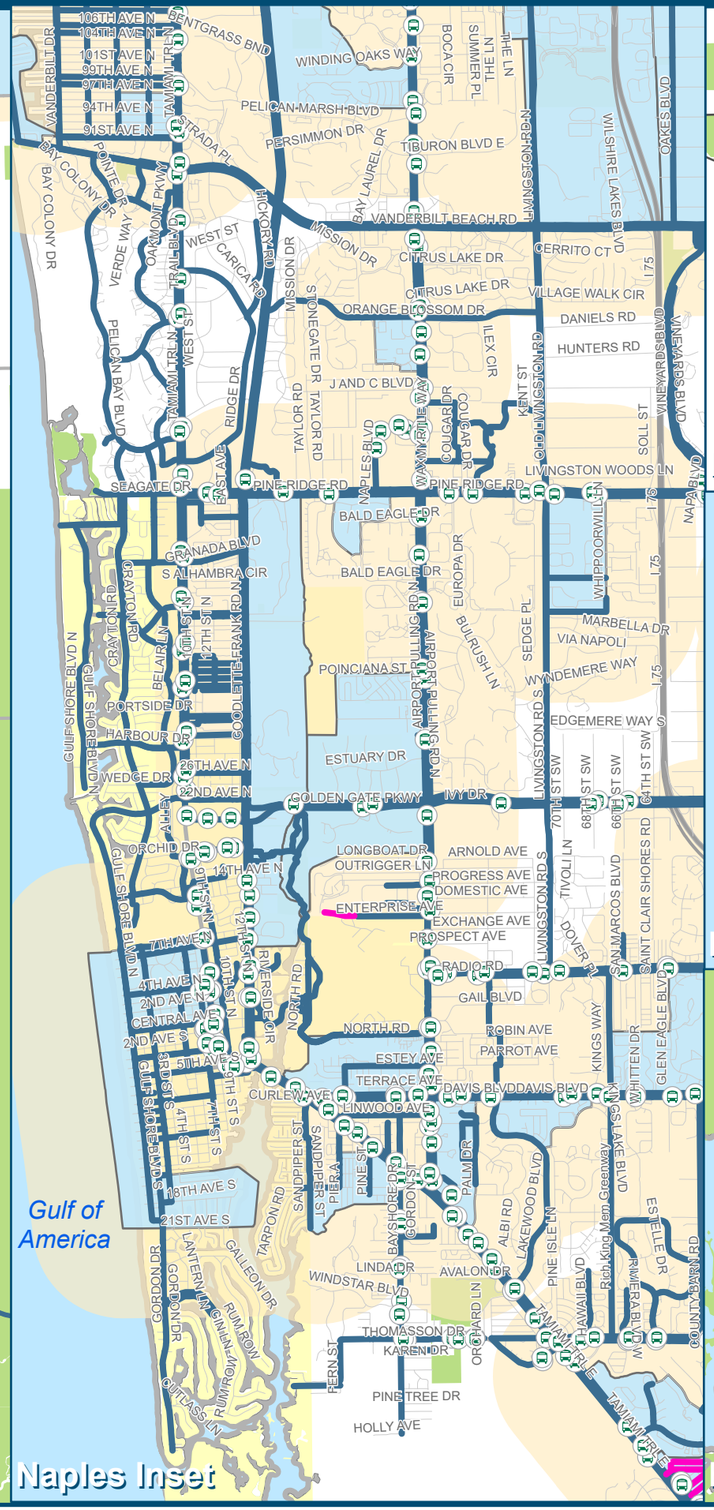
Marco Island Inset

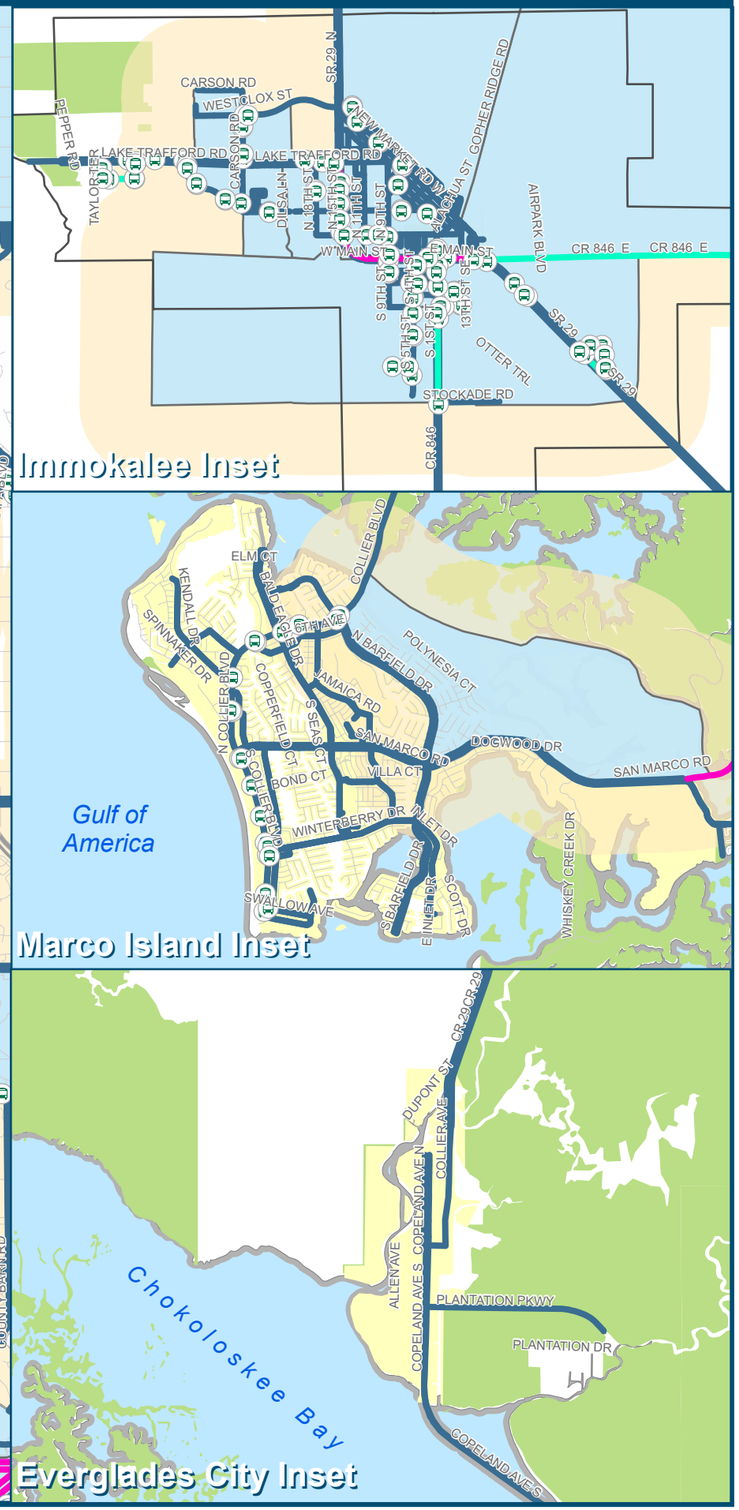
Everglades City Inset

Exhibit 7: Transit Dependent Gap Analysis

Bicycle & Pedestrian Master Plan







Priority Projects

Unincorporated Collier County

Collier county submits projects for the MPO funding identified through various sources: the needs identified in this plan, CRA Master Plans, Walkability Studies, other community master plans, and the Regional SUN Trail Network, all of which are adopted by reference in this plan. These projects focus on closing the remaining gaps in the network, prioritizing key corridors, underserved communities, and locations with safety concerns. By prioritizing these initiatives, Collier County aims to create a more connected, equitable, and sustainable transportation system that accommodates the growing needs of cyclists and pedestrians across the region.

Collier MPO's member governments include the cities of Naples, Marco Island and Everglades City, each with its own master plan outlining prioritized projects to guide future development and infrastructure improvements. Below is an overview of these municipalities and their key initiatives.

City of Naples

The City of Naples' 2022 Master Plan focuses on improving traffic safety and access for bicyclists and pedestrians. It also aims to maintain safe and connected parks and open spaces while supporting the mobility and recreation needs of both residents and visitors. **Figure 9** highlights selected maps of the existing bicycle network; additional details can be found in the City of Naples Master Plan.

Priority Projects for the City of Naples:

- **Closing Network Gaps:** Installing sidewalks, bike lanes, and shared-use paths in priority areas like Downtown Naples, Gulf Shore Blvd N, and Crayton Rd to create a continuous network.
- **Addressing Crash Hotspots:** Improving safety at high-incident locations such as U.S. 41 near 5th Ave S and Goodlette-Frank Rd, and Crayton Rd intersections with high-visibility crosswalks, raised crosswalks, and pedestrian beacons.
- **Enhancing Multi-Use Trails:** Upgrading trails like the Gordon River Greenway and connections to Naples Pier with better lighting, pavement, and access.
- **Bicycle Safety:** Enhancing bike lanes with green boxes, adding bike detection and incorporating bike lanes where feasible
- **Traffic Calming:** Implementing speed humps, raised intersections, and roundabouts to improve neighborhood safety.
- **Connectivity to Schools and Parks:** Improving pedestrian and bicycle access to key locations like Fleischmann Park, Lowdermilk Park, and Naples High School.
- **Intersection Upgrades:** Increasing safety with communication to intersections were deficient. Improving visibility and ADA compliance at intersections

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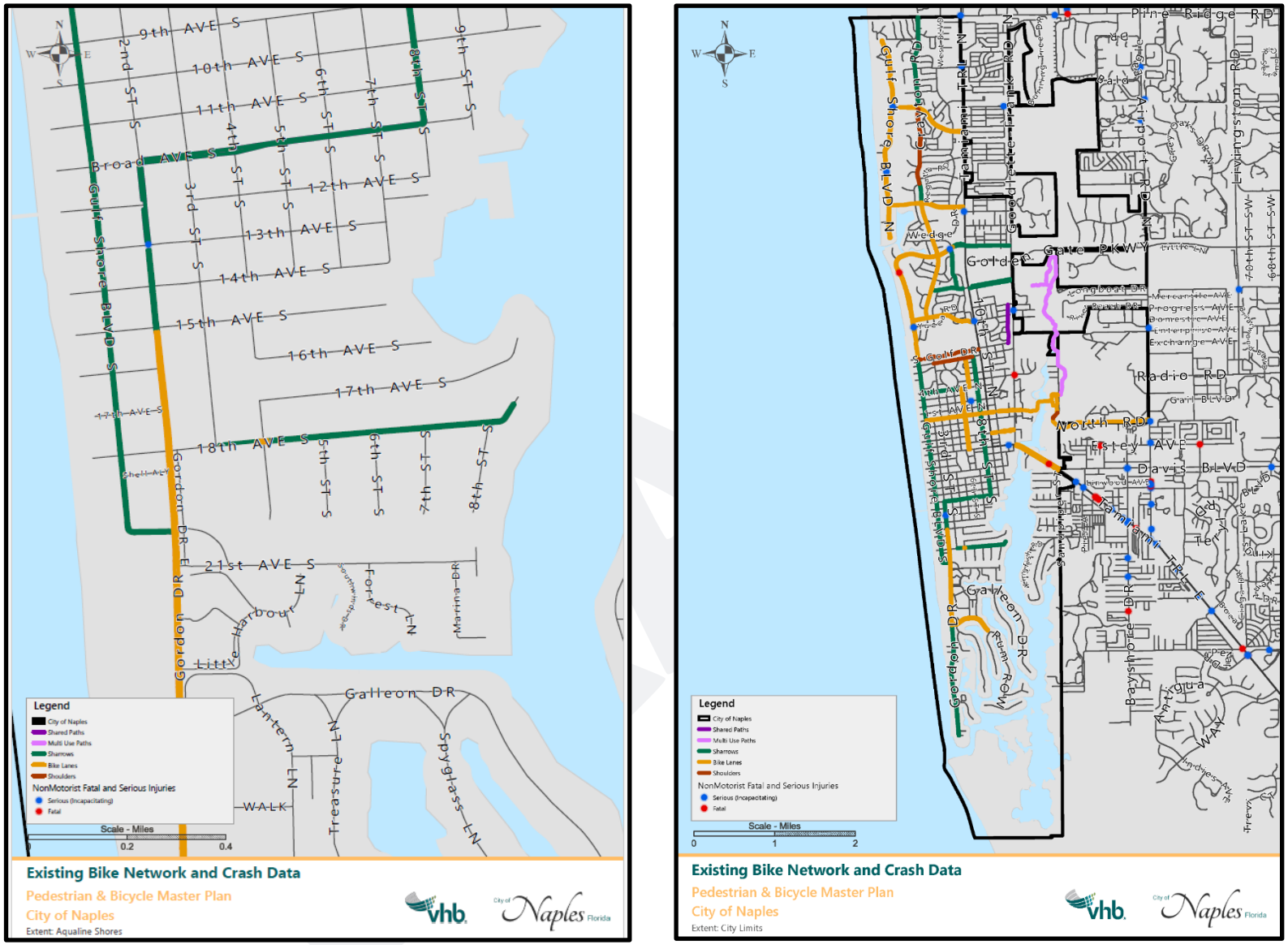


Figure 9: Maps of the Existing Bike Network from the City of Naples Bicycle-Pedestrian Master Plan

City of Marco Island

Marco Island is focused on enhancing its multimodal infrastructure to support a safe, connected, and sustainable network. As shown in **Figure 10**, priority projects have been identified to expand bike lanes, shared use paths, and other key transportation routes. These projects aim to improve connectivity across the island, close existing network gaps, and promote a more accessible environment for pedestrians and cyclists. Below are the key projects that are either funded or in the planning stages, reflecting ongoing efforts to improve transportation infrastructure.

Existing Bike Lanes:

Designated bike lanes currently exist along key corridors including San Marco Road, South Collier Boulevard, and Winterberry Drive. These routes provide critical local and regional connectivity for bicyclists.

Existing Shared Paths:

Shared-use paths are in place on multiple roadways, such as along North Collier Boulevard, providing multimodal access for pedestrians and cyclists and contributing to a safe and connected network.

Planned and Programmed Improvements

Programmed Funded Facilities:

- **Bald Eagle Drive:** Funded for construction in FY 2026/2027, this project will provide new bike lanes, enhancing connectivity between North Collier Boulevard and San Marco Road.
- **Seagrape Drive, Swallow Avenue, and Castaways Street:** These corridors are funded for bike lane installations, scheduled for construction by FY 2025. These improvements will enhance safety and close existing network gaps in southern Marco Island.
- **Sandhill Street (Leland Way to Winterberry Drive):** A shared-use path is programmed and funded for FY 2025, improving multimodal connectivity in the central portion of the island.

Programmed Unfunded Facility:

- **Elkam Circle Loop:** This future priority segment, connected to North Collier Boulevard and North Barfield Drive, remains unprogrammed currently but is recognized as an important extension of the island's multimodal network. It is planned for completion by FY 2030.

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Implementation Timeline

The City of Marco Island continues to implement a phased approach to multimodal infrastructure improvements. Projects are scheduled across FY 2025, FY 2027, and a longer-term target year of FY 2030. The city currently has one shared path project that remains unfunded, while additional programming is on hold until all active projects receive full construction funding. This strategy ensures that available resources are prioritized for the most impactful and near-term improvements.

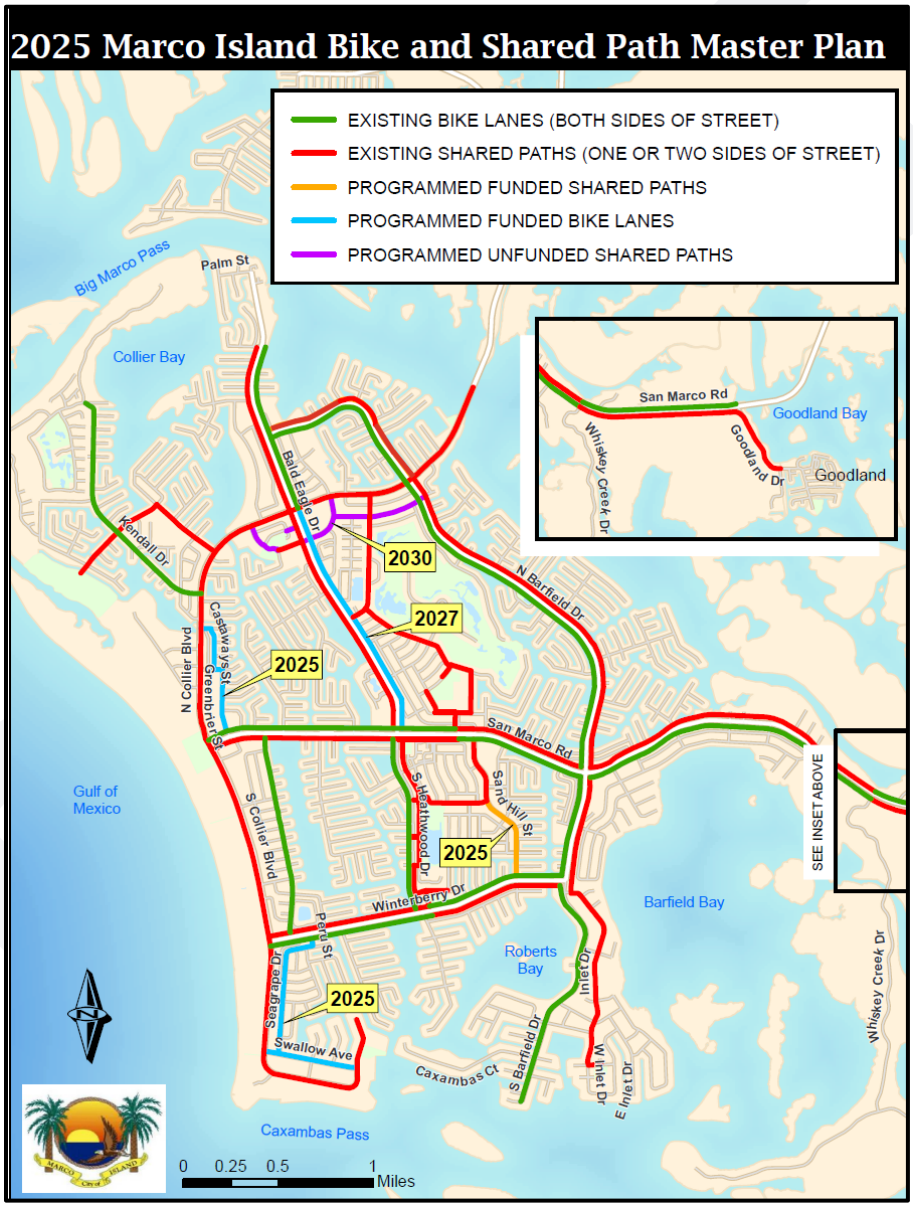


Figure 10: Marco Island Bike and Shared Path Master Plan

Everglades City

Everglades City has made significant strides in enhancing its transportation infrastructure for pedestrians and cyclists, starting with the adoption of its first Bicycle and Pedestrian Master Plan in 2022. A major milestone in the city's efforts came in 2019 when Everglades City was officially recognized as a Florida Trail Town, which further strengthened its commitment to improving non-motorized transportation options. This recognition sparked a more comprehensive effort to create a safe and well-connected network of bike lanes and pedestrian pathways throughout the city.

Priority Projects for Everglades City:

- **Everglades City Bike Lanes and Shared Paths:**
  - Expanding existing bike lanes along key corridors such as Broadway Avenue and Copeland Avenue provide safer routes for cyclists and pedestrians.
  - Development of shared-use paths to connect residential areas to the downtown district, local parks, and other key amenities.
- **Enhanced Safety Measures:**
  - Implementation of traffic calming measures, including improved crosswalks and pedestrian signals, particularly on high-traffic roads like State Road 29, to ensure the safety of vulnerable road users.
- **Connecting to Regional Networks:**
  - Developing connections to regional bicycle and pedestrian facilities, such as linking local routes to the SUN Trail Network, to allow seamless access for cyclists traveling through the area.
- **Everglades City Park Pathway:**
  - A proposed multi-use pathway around McLeod Park promotes walking and cycling while providing a safe and scenic route for local trips and recreational activities.

These efforts reflect Everglades City's ongoing dedication to building a more sustainable and accessible environment for non-motorized users. Through the implementation of its Bicycle-Pedestrian Master Plan and the recognition as a Florida Trail Town, Everglades City has laid the groundwork for future improvements that will enhance both local mobility and regional connectivity.

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SUN Trail (Shared-Use Nonmotorized Trail) Network

The SUN Trail program is a statewide initiative aimed at developing a network of paved, shared-use paths for bicyclists and pedestrians across Florida, as shown in **Figure 11**, which maps the Statewide SUN Trail Network. This program seeks to promote safe, non-motorized transportation options while enhancing recreational opportunities throughout the state. The initiative connects communities, facilitates regional travel, and supports the growth of sustainable transportation networks.

Key Regional Trails Planned in Collier County: Gulf Coast Trail and Collier to Polk Trail

The Gulf Coast Trail and the Collier to Polk Trail are two pivotal components in the development of Collier County's regional bike and pedestrian infrastructure. These trails will not only serve as essential connectors within the local network but also integrate the county into broader statewide and national systems, enhancing mobility, access, and quality of life for all residents and visitors.

The Gulf Coast Trail is a crucial part of Florida's state trail network, extending along the coastline and offering a scenic and safe route for non-motorized users. As it weaves through Collier County, this trail will provide direct access to key destinations, improve connectivity within urban and rural areas, and promote sustainable transportation options. This trail is essential for fostering local tourism, encouraging outdoor recreation, and supporting economic development in the region.

The Collier to Polk Trail represents a transformative project that will connect Collier County with neighboring Polk County, offering a seamless and safe pathway for cyclists and pedestrians. This trail will bridge gaps in regional connectivity, linking communities, parks, and other critical infrastructure. Its completion is vital for encouraging cross-county travel, supporting regional tourism, and strengthening Collier County's position within Florida's statewide trail network.

Figure X Shows the planning status of major segments of the Gulf Coast Trail and the Collier to Polk Trail and demonstrates that the entire regional trail network is undergoing more detailed planning through a combination of SUN Trail funding, County and /or FDOT roadway plans.

Two potential gaps in the regional network have been identified: Bonita Beach Road West, from Old US-41 to Bonita Beach, and US-41 East, from San Marco Rd to SR-29.

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Shared-Use Nonmotorized (SUN) Trail Network
Statewide Map



LEGEND

- SUN Trail Network
- Existing Trail
- Strategic Intermodal System (SIS) Facilities
- Wildlife Corridor
- Water

NOTES

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Additional trail information may be obtained by contacting your local government.

Figure 11: Statewide Map of the SUN Trail Network

Current Stage of Development

Gulf Coast Trail

Segments of the Gulf Coast Trail are currently at various stages of planning. The Lee MPO has submitted an application for discretionary grant funding to support the Bonita-Estero Rail Trail (BERT) acquisition, which is being negotiated by the Trust for Public Lands. Additionally, a PD&E study is underway for the Florida Power and Light (FPL) easement along Livingston Road. The connection between the BERT alignment and the FPL easement on Livingston Road will be facilitated by the Veterans Blvd Extension Project.

Collier to Polk Trail

FDOT is currently in the procurement phase for hiring a consultant to conduct a Project Development and Environment (PD&E) study for the Collier to Polk Trail. The PD&E phase is crucial for determining the final alignment, identifying environmental concerns, identifying priority segments eligible for the SUN Trail funding, right-of-way needs, and developing conceptual designs. The next stage will be preliminary Engineering (PE), detailed design and cost estimates prepared for priority segments, followed by Construction (CST). Funding needs will be identified at each stage and programming will occur through the MPO process, in coordination with FDOT and Collier County.

Importance of These Projects for Collier County

These two trails—the Gulf Coast Trail and the Collier to Polk Trail—provide a regional network of interconnected trails that is fundamental to the success of the Bicycle-Pedestrian Master Plan for Collier County. Having prioritized the development and enhancement of these trails, the Collier MPO is able to improve not only local transportation options but also to foster broader economic growth through increased tourism, outdoor recreation, and enhanced connectivity. Their completion will provide the region with more sustainable and safe travel options, ensuring a future where cycling and walking are central to daily life. These trails represent both a regional and state-wide vision for a more connected, sustainable, and healthy future, benefiting the people of Collier County for years to come.

Prioritization of SUN Trail Segments

The outcome of the PD&E studies for the Collier to Polk Trail and the FPL easement on Livingston Rd will provide guidance for prioritizing future phases of segments on the MPO's SUN Trail alignment. The Bicycle and Pedestrian Advisory Committee will be instrumental in determining priorities based on the evaluation criteria in this plan.

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Exhibit 8: Sun Trail Regional Network

Bicycle & Pedestrian Master Plan

Legend

- Environmental Lands
- Immokalee Urban Area
- Incorporated Municipalities
- Alignment
- Existing
- Programmed
- Greenway

Hendry County

Lee County

Immokalee

Collier to Polk Trail

Naples

Gulf Coast Trail

Marco Island

Everglades City

Gulf of America

0 0.5 1 2 Miles

Collier MPO BICYCLE-PEDESTRIAN MASTER PLAN 2025

Naples Inset

Immokalee Inset

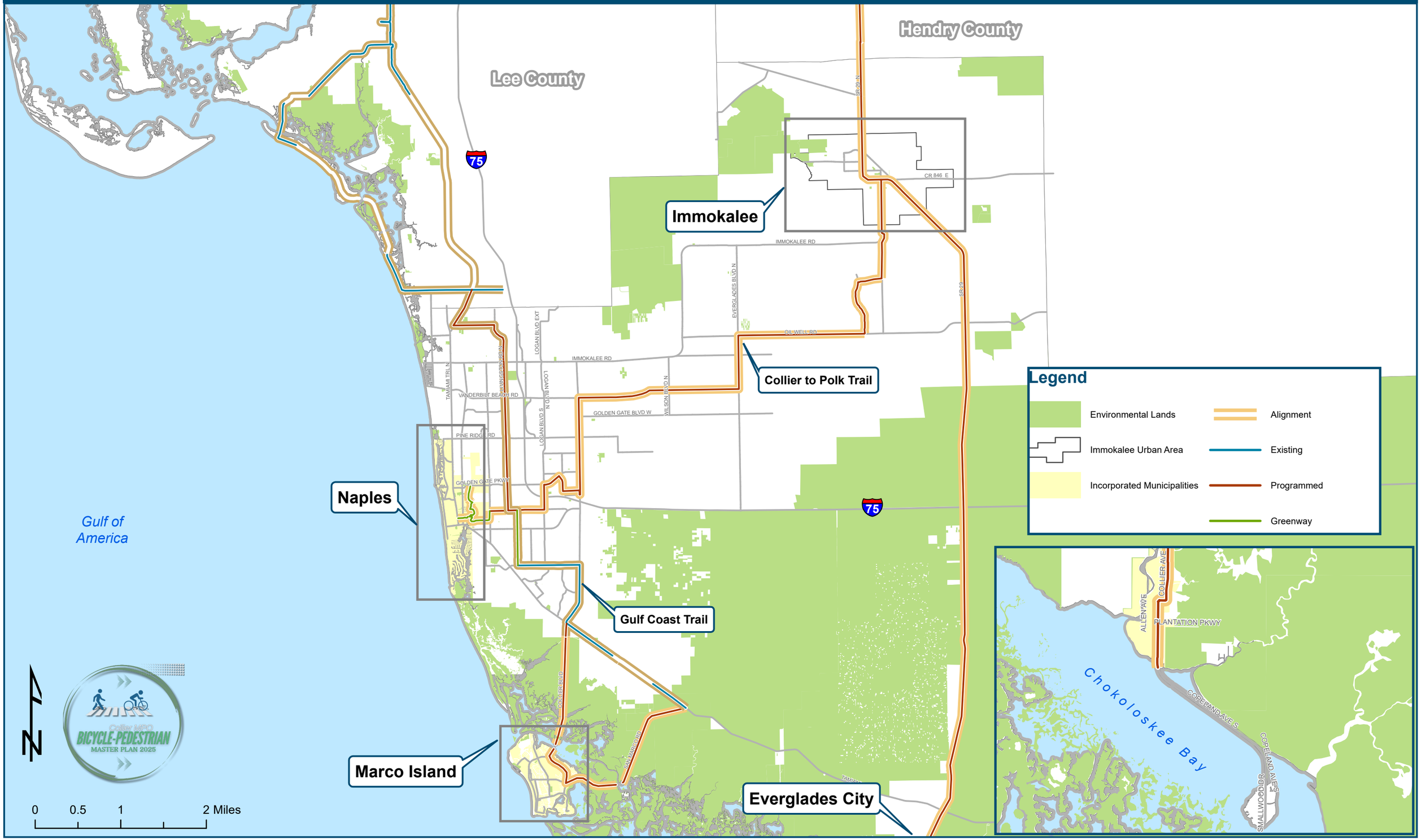
Marco Island Inset

Everglades City Inset

Chokoloskee Bay

Exhibit 9: Sun Trail Regional Network

Bicycle & Pedestrian Master Plan



Priority SUN Trail Projects in Adjoining Counties

With the **Gulf Coast Trail** and **Collier to Polk Trail** enhancing regional connectivity within Collier County, several other upcoming projects in the surrounding counties are also programmed to improve Florida's statewide trail network. These projects will contribute to broader regional and state connectivity, helping to integrate Collier County's trails with the larger SUN Trail System. Below are a few other key upcoming projects in the surrounding counties:

Florida Gulf Coast Trail
Segment: John Yarborough Linear Park & Bridge (South of Colonial Blvd to Hanson St)
FM #: 4475151
Cost: $6.25M | Phase: Construction | Year: 2025

Collier to Polk Trail
Segment: Fort Fraser Trail Overpass at SR-60
FM #: 4406031
Cost: $3.90M | Phase: Construction | Year: 2025

Coast to Coast Trail (C2C)
Segment: Orange County Gap Segment 2 (Hiawassee Rd to North of SR-414)
FM #: 4364331
Cost: $8.65M | Phase: Construction | Year: 2025

Space Coast Trail
Segment: Merritt Island NWR to Kennedy Pkwy
FM #: 4370932
Cost: $7.54M | Phase: Construction | Year: 2025

East Coast Greenway
Segment: SR-A1A (Marineland to Fort Matanzas Inlet)
FM #: 4470641
Cost: $12.60M | Phase: Construction | Year: 2027

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Collier to Polk Regional Trail Corridor Status

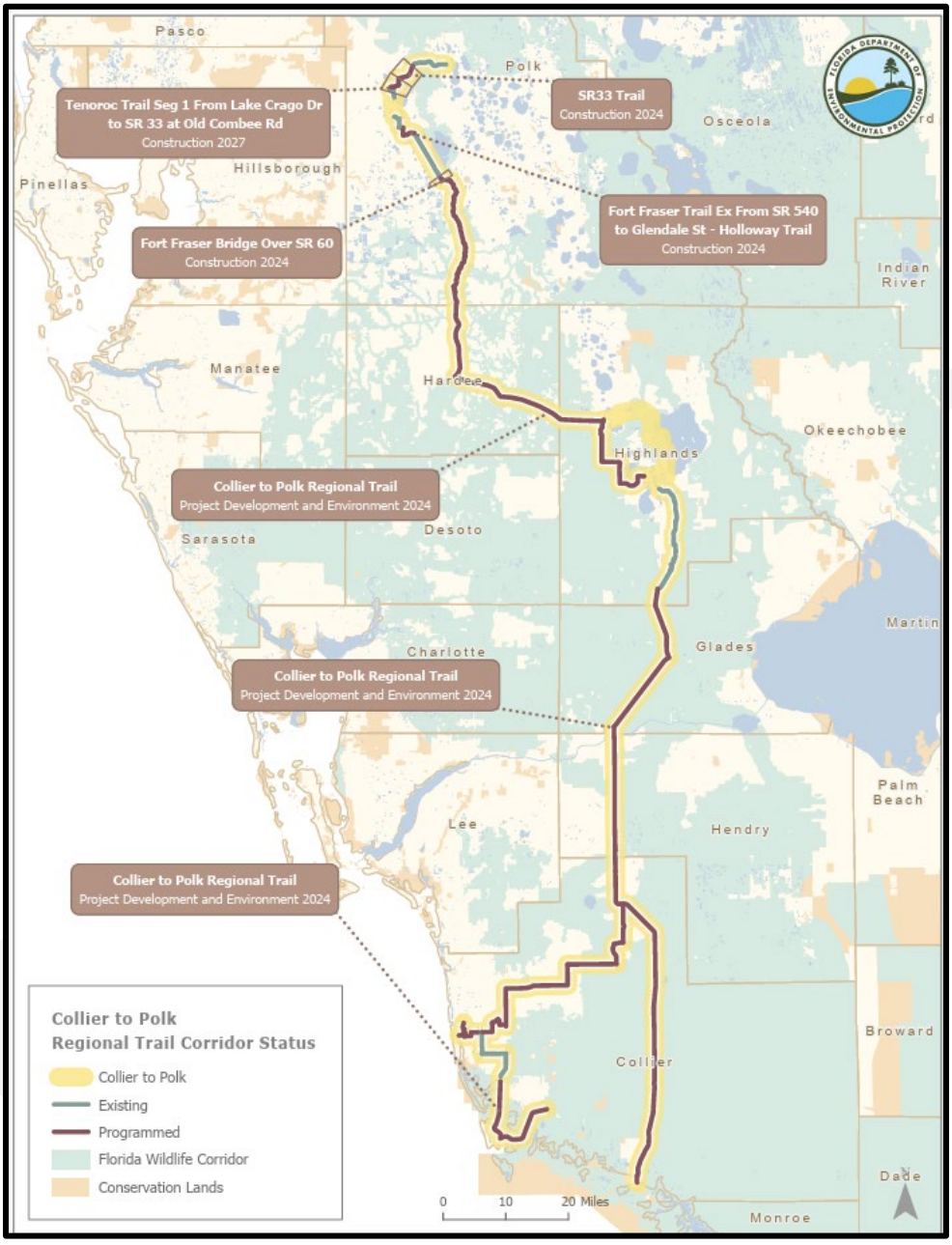


Figure 12: Collier to Polk Regional Trail Corridor Status, Source Florida Department Environmental Protection

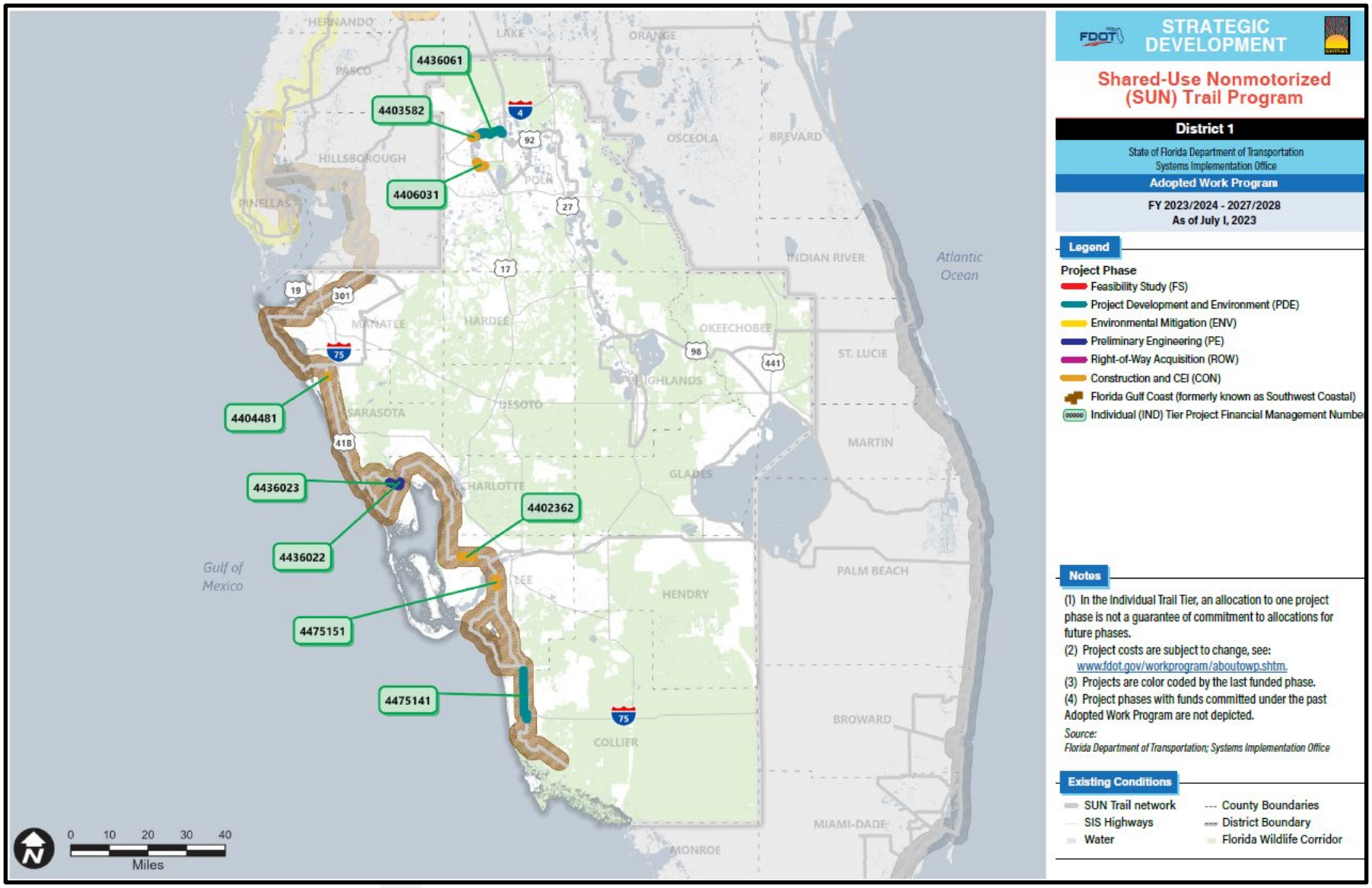


Figure 13: FDOT SUN Trail Adopted Work Plan as of July 2023 - FM# 4475141

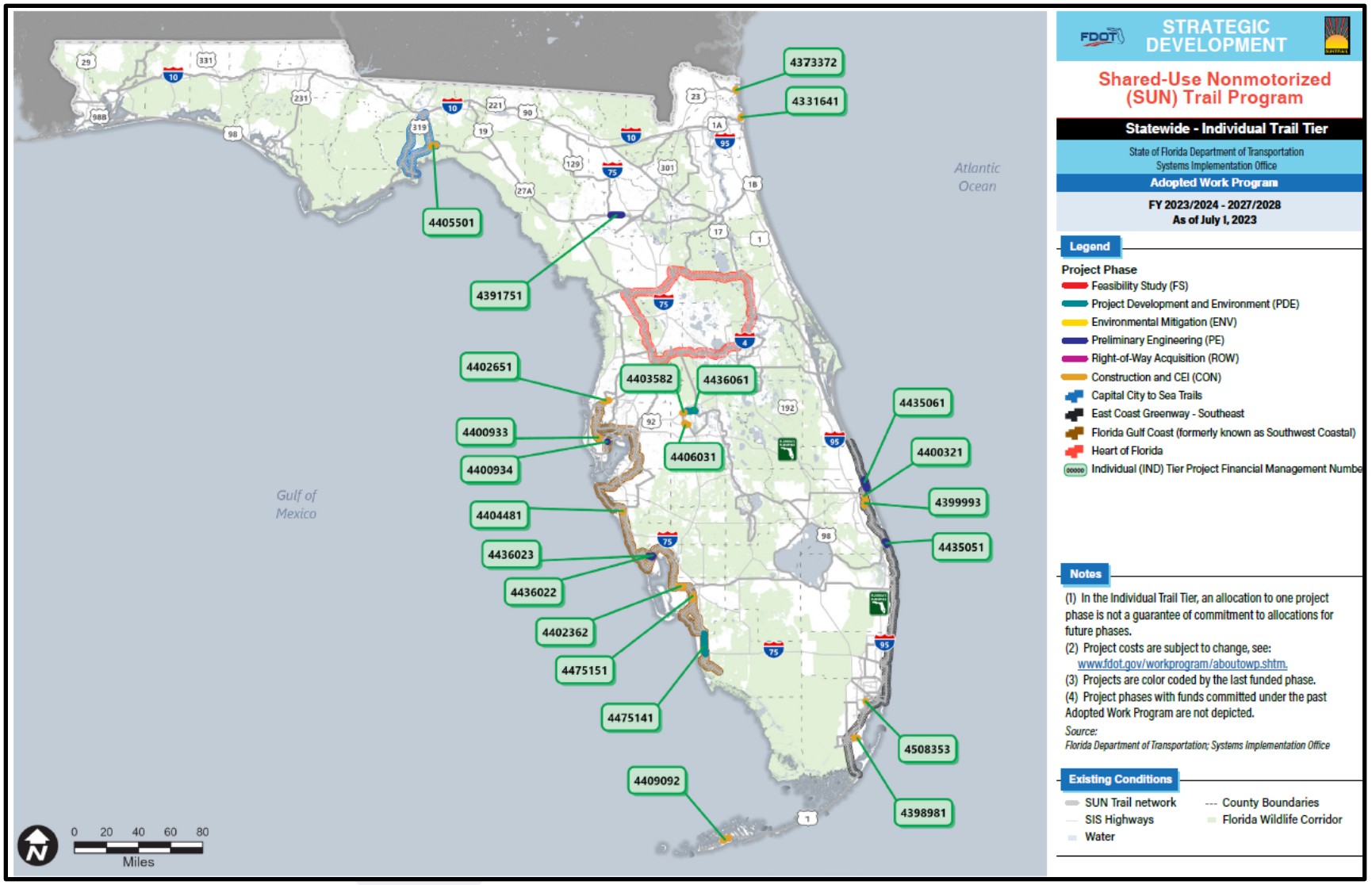


Figure 14: FDOT SUN Trail Adopted Work Plan as of July 2023 - FM# 4406031

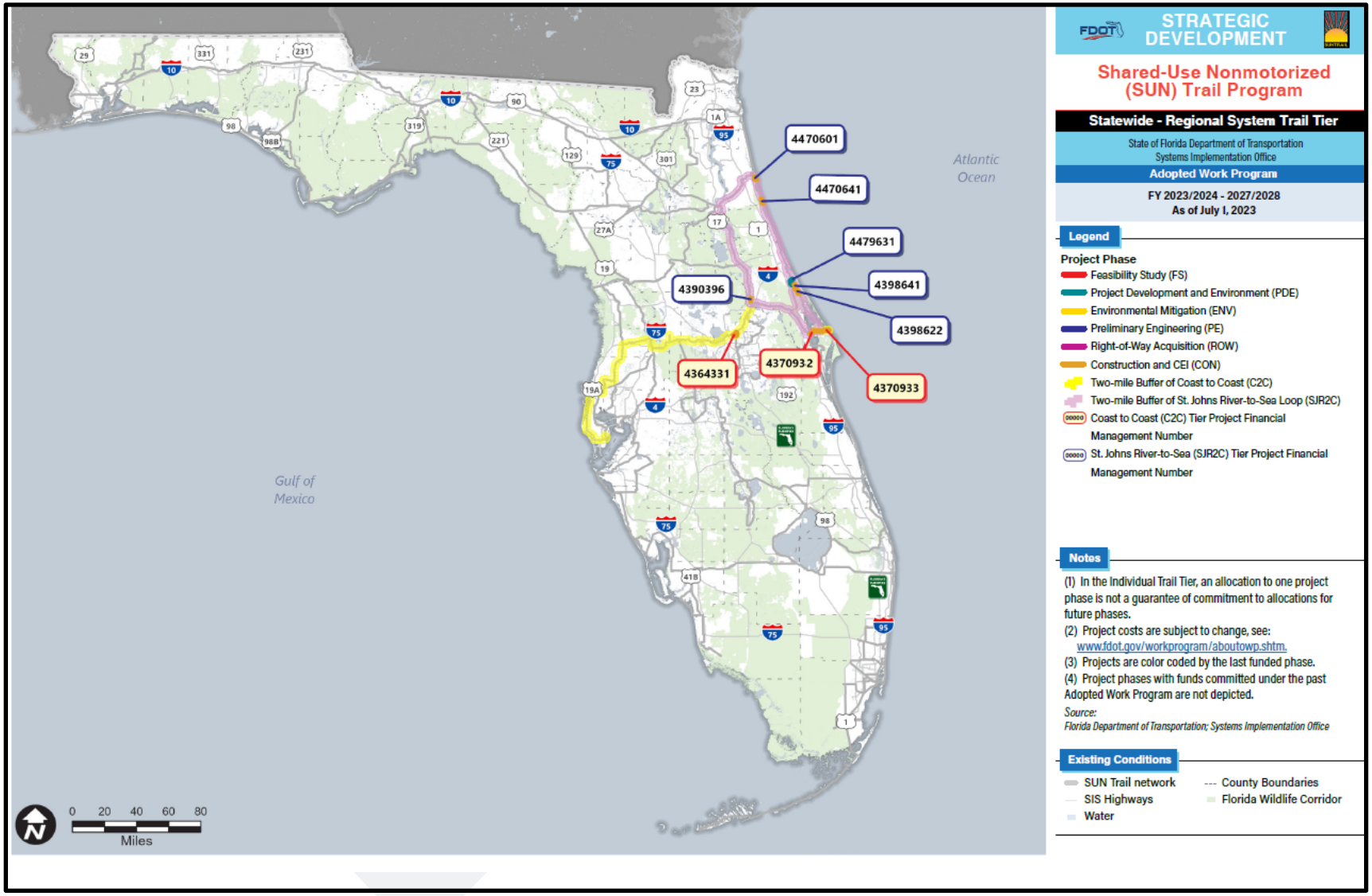


Figure 15: FDOT SUN Trail Adopted Work Plan as of July 2023 - FM# 4364331, 4370932 & 4470641

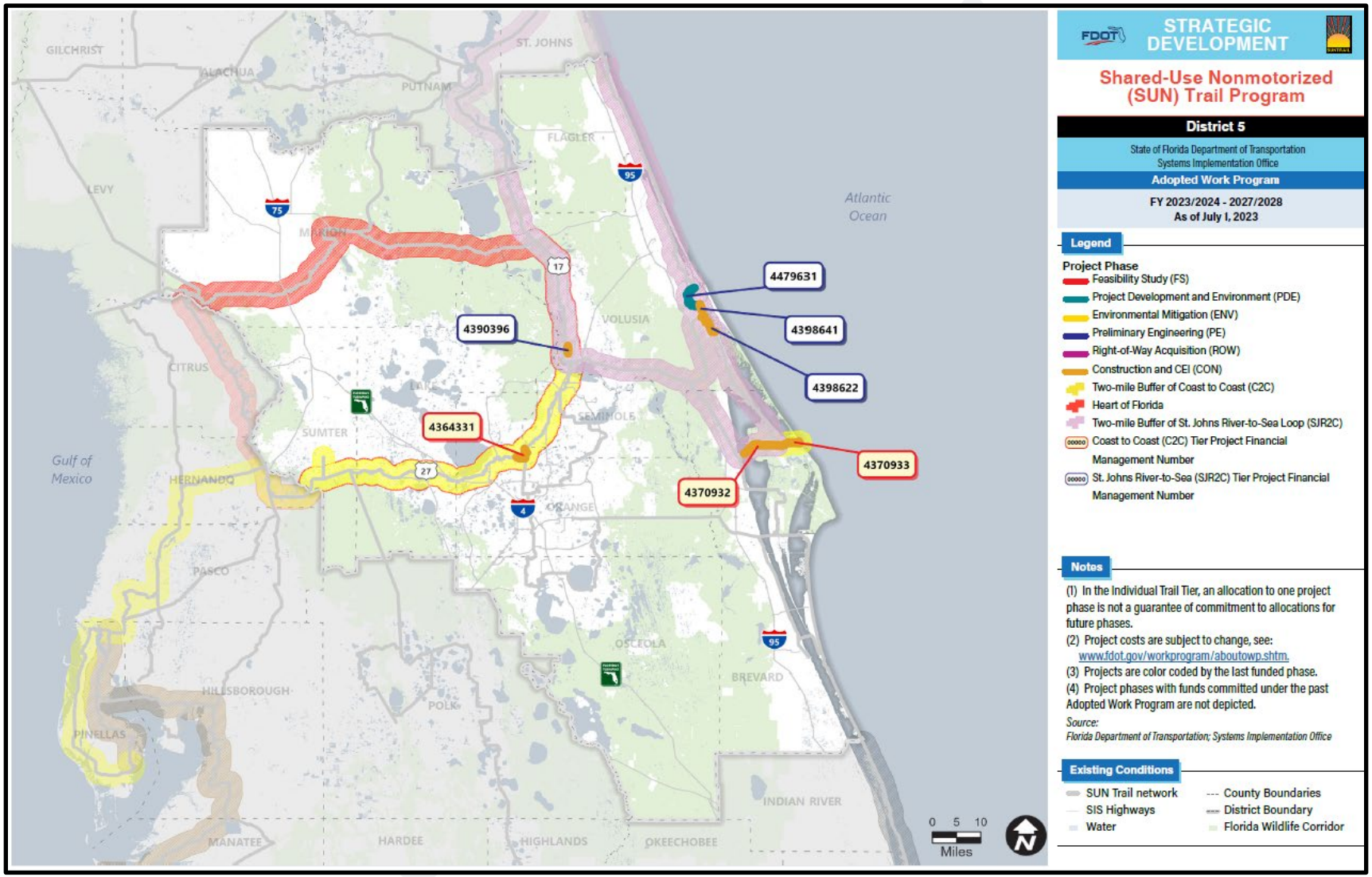


Figure 16: FDOT SUN Trail Adopted Work Plan as of July 2023 - FM# 4364331

SECTION 6 - DESIGN GUIDELINES FOR BICYCLE AND PEDESTRIAN FACILITIES

The Collier MPO Bicycle-Pedestrian Master Plan emphasizes designing transportation infrastructure that meets the needs of all ages and abilities. Section 6, Design Guidelines for Bicycle and Pedestrian Facilities, provides a framework for creating inclusive, safe, and functional environments that enhance mobility for everyone, from children and seniors to individuals with disabilities. These guidelines integrate universal design principles, ADA compliance, and best practices from national and state standards to ensure equitable access and improve the overall user experience.

By aligning with resources like the American Association of Highway and Transportation Officials (AASHTO), National Association of City Transportation Officials (NACTO), and the Florida Department of Transportation (FDOT) design manuals (FDM), the Master Plan promotes innovative solutions such as low-stress bike lanes, shared use paths (SUPs), and accessible pedestrian crossings. These design elements aim to foster safety, comfort, and connectivity while supporting active transportation and community well-being. Through thoughtful planning and implementation, Collier County is advancing its vision of an inclusive, multimodal transportation network that prioritizes the needs of all users.

Designing for All Ages and Abilities

The 2025 Collier MPO Bicycle and Pedestrian Master Plan emphasizes the creation of inclusive transportation networks that are accessible to individuals of all ages and abilities. This commitment to accessibility is grounded in universal design principles and the requirements of the Americans with Disabilities Act (ADA). Designing for all users is not only about meeting legal standards but also about enhancing mobility for everyone, including people with disabilities, children, seniors, and individuals with other mobility challenges.

To support this inclusive vision, a key goal of the Master Plan is to design facilities that ensure safe and comfortable travel for children, seniors, and individuals with disabilities, as well as the general population. Infrastructure should incorporate elements such as shorter crossing distances at intersections, lower speed limits, and safe crossing options such as pedestrian hybrid beacons. These features reduce potential hazards and promote a safer and more accessible environment for all users.

ADA compliance remains a cornerstone of the design guidelines in the Master Plan. ADA compliant pedestrian pathways should feature continuous routes with smooth, unobstructed surfaces to accommodate wheelchairs, strollers, and walkers. Additionally, detectable warnings like textured paving and audible signals at crossings provide necessary information for individuals with visual or hearing impairments, ensuring safety in high-traffic areas.

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Facilities for bicycles must also adhere to accessibility standards. For example, bike lanes should be free from obstacles, have clear markings, and be wide enough to accommodate various types of bicycles and mobility devices. For shared use paths, the Master Plan calls for a minimum width that allows for both cyclists and pedestrians to coexist comfortably, with extra attention paid to maintaining proper segregation where appropriate, so that users can safely navigate the path without conflicts.

FDOT Guidelines

The Florida Department of Transportation (FDOT) plays a pivotal role in shaping the design and implementation of bicycle and pedestrian facilities throughout the state. By adhering to FDOT's standards and initiatives, Collier County ensures that its infrastructure aligns with statewide priorities for safety, accessibility, and connectivity. FDOT's guidelines emphasize creating a multimodal transportation network that accommodates a diverse range of users while fostering sustainable growth and mobility options.

FDOT's current initiatives, such as the Complete Streets Implementation Plan, Context Classification Guide, and the Statewide Pedestrian and Bicycle Strategic Safety Plan, reinforce the commitment to safe, equitable, and context-sensitive design. These initiatives prioritize reducing pedestrian and cyclist injuries and fatalities while enhancing comfort and convenience for all users. By incorporating these principles, the Collier MPO Bicycle-Pedestrian Master Plan supports the state's vision of zero roadway fatalities through the Target Zero strategy.

Key Design Manuals

The following FDOT design manuals and resources provide the foundation for the guidelines in this plan:

- **FDOT Design Manual (FDM):** The FDM outlines comprehensive criteria for roadway and non-motorized facilities, focusing on accessibility, safety, and user experience.
- **Manual on Uniform Traffic Control Devices (MUTCD):** Used for designing pedestrian crossings, signals, and signage, ensuring national consistency.
- **Florida Greenbook:** Guides local agency designs for bicycle and pedestrian facilities, tailored to Florida-specific contexts.
- **FDOT Context Classification Guide:** Helps identify appropriate facility types based on land use, traffic volume, and user needs.
- **Florida Bicycle and Pedestrian Partnership Council Guidelines:** Provides strategic recommendations for creating connected, multimodal systems across the state.

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FDOT Context Classification System

Context Classification	Description	Typical Speed Limit (mph)	Recommended Bicycle Facilities	Recommended Pedestrian Facilities
C1 (Natural)	Undeveloped areas like parks or forests	35–45	Shared-use paths to minimize environmental impact	Limited pedestrian infrastructure, with natural trail paths
C2 (Rural)	Areas with farmland or sparse development	45–55	Paved shoulders, shared-use paths alongside roadways	Sidewalks in areas with public facilities or clusters of activity
C2T (Rural Town)	Small, walkable towns with compact layouts	25–35	Bike lanes or shared-use paths connecting key town destinations	Sidewalks, mid-block crossings, and enhanced lighting
C3R (Suburban Residential)	Low-density residential neighborhoods	25–35	Bike lanes, shared-use paths for neighborhood connectivity	Continuous sidewalks, ADA-compliant crossings, pedestrian signals
C3C (Suburban Commercial)	Suburban areas with commercial hubs	35–45	Buffered bike lanes, shared-use paths for safer access to shopping	Sidewalks, crosswalks with signals, and refuge islands
C4 (Urban General)	Moderately dense areas with mixed-use development	25–40	Buffered or separated bike lanes for high-volume traffic areas	Wider sidewalks, pedestrian hybrid beacons, and mid-block crossings
C5 (Urban Center)	Dense areas with a mix of retail, offices, and housing	20–30	Separated bike lanes, bike parking, and green-painted bike lanes	Wide sidewalks, high-visibility crosswalks, and pedestrian plazas
C6 (Urban Core)	Highly urbanized downtown areas	20–25	Protected bike lanes, bike boxes, and bike-share stations	Enhanced pedestrian infrastructure, including walkable plazas and overpasses

The Florida Department of Transportation (FDOT) Context Classification System is an essential framework used to guide the design of transportation facilities that align with their surrounding environments. By

identifying the "context" of a roadway or area, planners and engineers can develop infrastructure that balances mobility, safety, and community needs, creating a transportation network that is functional, inclusive, and context sensitive.

Current FDOT Initiatives Related to Bicycle and Pedestrian Design

1. **Complete Streets Implementation**
   FDOT's Complete Streets initiative aims to design streets that provide safe, accessible, and comfortable travel for all users, including pedestrians, bicyclists, motorists, and transit riders. This approach ensures that roads are context-sensitive and adaptable to their surrounding environment, balancing transportation needs with community development.

2. **Safe Routes to School (SRTS)**
   This initiative promotes safer infrastructure for children traveling to and from school by walking or biking. Integrating SRTS principles into the MPO's planning enhances safety and encourages active transportation among younger populations.

3. **Target Zero and Strategic Safety Plan**
   Target Zero prioritizes reducing traffic fatalities and serious injuries, particularly for vulnerable road users like pedestrians and cyclists. The FDOT Bicycle and Pedestrian Strategic Safety Plan outlines actionable strategies, such as intersection redesigns and speed management, which directly influence the guidelines in this plan.

4. **Florida SUN Trail Network**
   FDOT is investing in the Shared-Use Nonmotorized (SUN) Trail Network, a statewide system of paved trails that connect communities. This initiative emphasizes the importance of regional connectivity and highlights the need for well-designed off-road facilities like shared-use paths.

Integration of FDOT Guidelines into Collier MPO Plans

Collier MPO's Bicycle-Pedestrian Master Plan leverages FDOT's guidelines and initiatives to ensure that local projects meet state and national standards while addressing unique regional needs. For example, the inclusion of context-sensitive solutions ensures that facility designs align with surrounding land use, while high-visibility bike lanes and pedestrian hybrid beacons address critical safety concerns identified in FDOT's safety initiatives.

By aligning with FDOT's comprehensive framework, the Collier MPO can deliver a transportation network that reflects the best practices in safety, accessibility, and sustainability. This partnership not only ensures

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consistent design but also positions Collier County as a leader in creating walkable and bikeable communities in Florida.

Illustrated Guide to Bicycle and Pedestrian Facilities

On-Road Bicycle Facilities



Paved Shoulders

Dedicated paved areas adjacent to the travel lanes, typically 4–8 feet wide, intended to enhance safety for cyclists and pedestrians in rural and suburban settings. They provide separation from vehicles without marked bike lanes.

Audible Pavement Markings



Rumble strips or textured markings are applied along roadway edges or shoulders to produce tactile and audible feedback when crossed. While these markings serve as an important safety feature for vehicular traffic—alerting drivers when they drift toward the shoulder—they can negatively impact cyclists. The rumble strips may pose a tripping hazard and create discomfort for cyclists using the shoulder. When seeking opportunities to improve bicycle facilities, alternative improvements should be considered, such as dedicated bike lanes, if right-of-way allows.

Bike Lanes



Bicycle lanes are exclusive spaces for cyclists, marked with striping and pavement symbols, and typically range from 4 to 7 feet wide. These lanes provide a safe, designated area for cyclists, reducing conflicts with vehicles. For newly constructed roads, the standard is a 7-foot-wide bike lane with a double 6-inch white edge line for safety. On existing roads where curbs cannot be moved, the lane width depends on available pavement, with the preferred options being:

1. 7-foot buffered bike lane
2. 6-foot buffered bike lane
3. 5-foot bike lane
4. 4-foot bike lane

Buffered Bike Lanes

Bike lanes are enhanced with a marked buffer zone (1–3 feet wide) to separate cyclists from moving vehicles or parked cars, improving safety and comfort.



Separated Bike Lanes

Physically protected lanes for bicyclists, using barriers, raised curbs, or parked vehicles to provide complete separation from motorized traffic. These are ideal for high-speed or high-volume roadways.



High-Visibility Bike Lanes

Bike lanes are accommodated with bright, durable pavement markings (e.g., green) to increase awareness and visibility for motorists and cyclists at potential conflict points, such as intersections or driveways.



Advisory Bike Lanes

Dashed-edge bike lanes are used on narrow, low-volume roads where vehicles and bicycles share space. Drivers may encroach into the lanes when cyclists are not present but must yield to bicycles.



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Advisory Shoulders

Shared, visually marked areas on road edges where pedestrians and cyclists travel. Vehicles may encroach but must yield, typically on roads without curbs.



Two-Stage Queue Boxes

Designated waiting areas at signalized intersections for bicyclists making multi-leg or left turns. These boxes improve turning safety and reduce conflicts by keeping cyclists visible to drivers.



<u>Off-Road Bicycle & Shared Use Facilities on Independent Rights-of-Way</u>

Shared Use Paths (including Side Paths)

Shared use paths, including side paths, are paved pathways for cyclists and pedestrians, typically 8 to 14 feet wide. They can run independently of roadways or parallel to them, separated by buffers like landscaping, curbs, or fencing for safety. Wider than sidewalks, they accommodate higher-speed users like cyclists while supporting pedestrians. Shared use paths are ideal for recreation and commuting, especially where on-road bike facilities aren't feasible due to limited space or high-speed traffic.



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Pedestrian Crossings on Major Roadways

Pedestrian Hybrid Beacon (PHB)

A pedestrian-activated traffic control device featuring flashing yellow lights, steady red signals, and a walk indication. PHBs stop vehicular traffic on high-speed or high-volume roads, providing a controlled crossing for pedestrians.



Rectangular Rapid Flashing Beacon (RRFB)

Flashing lights activated by pedestrians at unsignalized crossings. These beacons increase driver awareness and compliance at mid-block or high-speed crossings without requiring a traffic signal.



Mid-Block Crosswalks

Marked crossings positioned between intersections to provide safe pedestrian access on long road segments. These crossings may include signals, lighting, or raised platforms to improve visibility and safety.



Overpasses and Underpasses

Grade-separated crossings allow pedestrians and cyclists to cross major roadways or obstacles without conflicting with vehicle traffic. Overpasses are elevated bridges, while underpasses are tunnels beneath the road.



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Wayfinding

A coordinated system of signage and markings designed to guide cyclists and pedestrians through a network. Wayfinding elements indicate destinations, distances, and connections to promote ease of navigation and route selection. This technical framework aligns with national and local design standards, ensuring that infrastructure is safe, accessible, and supportive of diverse transportation needs.



Illustrative Cross Sections

The guide below illustrates recommended bicycle and pedestrian facilities for Collier County roadways with speed limits of 40 mph or higher. These typical sections emphasize design features aimed at improving safety and accessibility, contributing to a more connected and user-friendly non-motorized network.

Two-Lane Rural Section

At a minimum, paved shoulders can be provided. Ideally, bike lanes should be implemented, with options for added safety features such as audible pavement markings or buffer zones utilizing various protective elements.

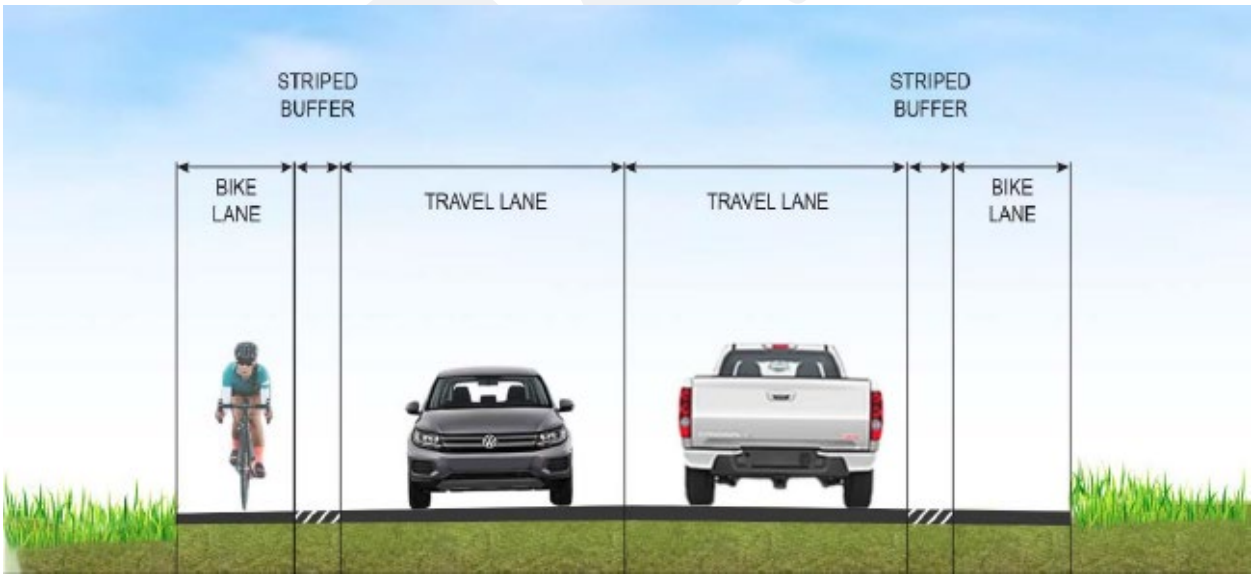


Figure 17: Two-Lane Rural Section Featuring Bike Lanes

Multi-Lane Urban Section

At a minimum, sidewalks should be included, with the preferred option being shared-use paths and protected bike lanes on both sides of the roadway.

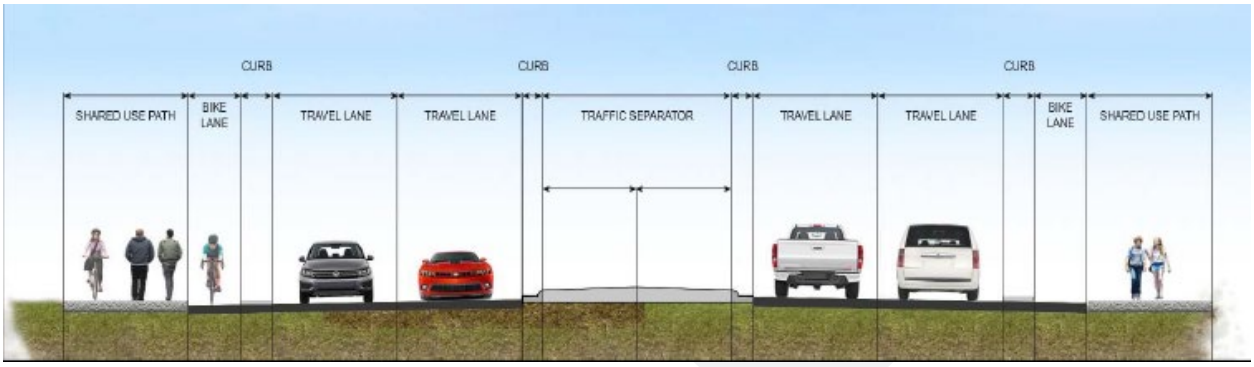


Figure 18: Urban Section with Shared-Use Path and Bike Lanes

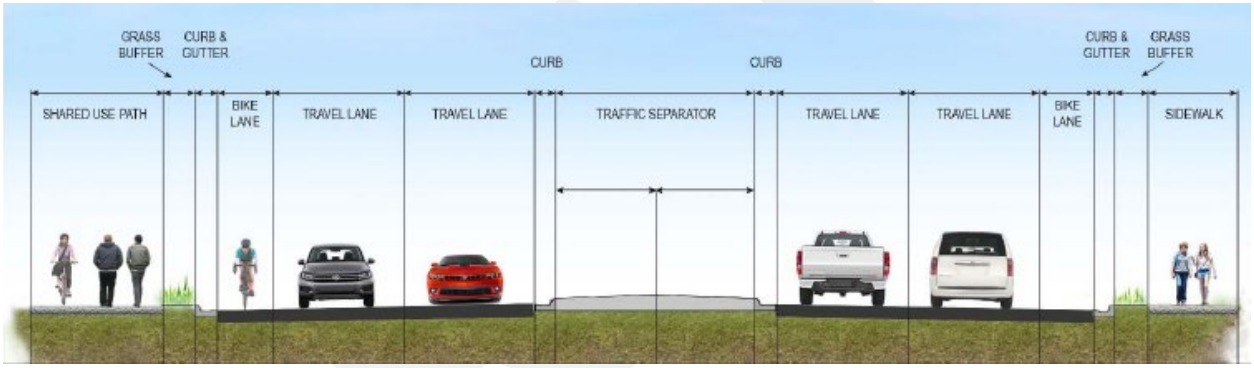


Figure 19: Urban Section with Shared-Use Path, Sidewalk, and Bike Lanes on Both Sides

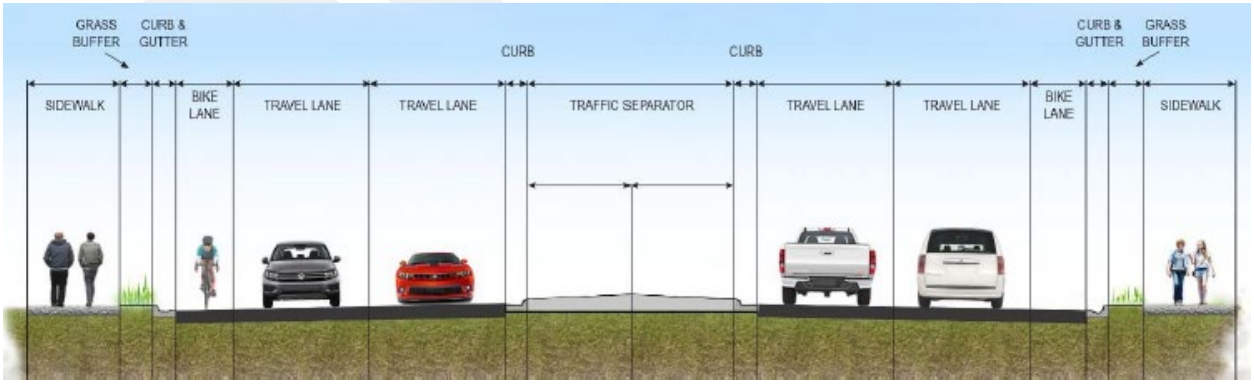


Figure 20: Sidewalks and Bike Lanes on Each Side

SECTION 7 - POLICIES AND IMPLEMENTATION STRATEGIES

The Collier MPO Bicycle-Pedestrian Master Plan is built on the foundation of sound policies and actionable strategies that guide planning, funding, and implementation efforts. While the MPO does not directly construct or implement projects, it plays a pivotal role as a forum for collaboration, coordination, and prioritization. Section 7 defines the MPO's responsibilities in policy development, planning, design standards, and funding strategies, ensuring alignment across all jurisdictions and stakeholders involved in enhancing active transportation for Collier County.

The MPO's Role in Policy Development

The MPO's primary responsibility is to act as a convener, bringing together municipalities, state agencies, and community stakeholders to collaboratively shape policies that support a safe, connected, and equitable transportation network. Rather than building projects, the MPO provides the structure for shared decision-making and creates a unified vision for bicycle and pedestrian infrastructure throughout the region.

The MPO's leadership fosters collaboration by ensuring that policy development reflects regional priorities, such as improving safety, reducing traffic-related fatalities, and promoting sustainable transportation options. Through public workshops, stakeholder engagement, and inter-agency coordination, the MPO establishes the groundwork for projects that align with state and federal goals, such as Target Zero and Complete Streets principles. This collaborative approach creates a cohesive policy framework that guides individual jurisdictions in their implementation efforts.

MPO Planning Guidelines

The MPO supports and aligns its planning efforts with established policies and guidelines from FDOT, including the Complete Streets Policy, Target Zero, and the Context Classification system. These policies emphasize the creation of safe, accessible, and context-sensitive transportation networks that accommodate all users, regardless of mode, ability, or age. By integrating these principles into its planning process, the MPO ensures consistency with state goals while tailoring solutions to the unique needs of Collier County.

As part of its planning approach, the MPO supports member entities and FDOT by funding projects that incorporate bicycle lane improvements during routine activities such as resurfacing, reconstruction, and maintenance of existing corridors. Proactively addressing bicycle infrastructure as part of these standard processes helps to enhance safety, reduce costs, and maximize the efficiency of investments.

The MPO also supports projects and locally adopted policies that close existing gaps in the bicycle and pedestrian network. By prioritizing connectivity, especially in areas where infrastructure is incomplete, the region can progress toward achieving a fully integrated and well-connected network. This policy not only

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addresses immediate needs but also ensures that future growth supports regional mobility and accessibility goals.

These guidelines reflect the MPO's commitment to fostering a collaborative planning environment that supports safe, equitable, and sustainable transportation for all.

MPO Design Guidelines

The MPO supports projects proposed by member entities that apply locally adopted design guidelines, the FDM, or apply the design guidelines outlined in Section 6 of this Plan, which emphasizes creating safe and accessible bicycle and pedestrian facilities for all ages and abilities

The MPO recognizes that designing infrastructure requires consideration of varying contexts, including urbanized areas, rural areas, and transitional zones experiencing growth. Each context presents unique challenges and opportunities that should be addressed through tailored design approaches:

- **Urbanized Areas:**
  These regions require robust infrastructure due to higher population densities and traffic volumes. This includes features like protected bike lanes, wider sidewalks, and enhanced pedestrian crossings. The MPO recommends prioritizing separated facilities, which are on-road spaces for cyclists and pedestrians that are physically separated from vehicle traffic using features such as curbs and barriers. This ensures safer and more usable spaces for non-motorized users.

- **Rural Areas:**
  In less dense regions, shared-use paths, paved shoulders, and other low-impact facilities are often more practical. These designs should focus on maintaining connectivity while respecting the rural character and minimizing environmental disruption.

- **Transitional Zones:**
  Areas in transition between rural and urban characteristics require flexible, forward-thinking designs that can evolve alongside development. Infrastructure in these areas should accommodate existing needs while anticipating future growth and higher usage demands.

The MPO encourages member entities to adopt a phased approach to implementing bicycle and pedestrian infrastructure. Phased planning and construction allow communities to address immediate needs while laying the groundwork for future enhancements. This strategy is particularly beneficial for managing costs and minimizing disruptions as infrastructure evolves over time.

Furthermore, the MPO supports member entities planning for and securing sufficient right-of-way (ROW) to accommodate these facilities. Adequate ROW planning ensures that future development can integrate

high-quality bicycle and pedestrian infrastructure without compromising safety or accessibility. Anticipating growth and reserving space for future expansions aligns with the MPO's vision for a regionally connected, multimodal network.

For high-risk corridors, the MPO emphasizes the importance of integrating key safety measures into design efforts, including:

1. Limiting Unsignalized Right Turns: Reducing opportunities of conflict points between vehicles and vulnerable road users.

2. Posted speeds of 35 mph or less: Increased safety and create a more comfortable environment for cyclists and pedestrians.

By aligning infrastructure design with regional goals and considering the unique characteristics of urban, rural, and transitional areas, member entities can create a cohesive and adaptable transportation network that meets the needs of current and future users.

Funding Prioritization

The MPO Board plays a key role in setting policies for the allocation of Surface Transportation-Urban (SU) funds. In previous years, the MPO's policy as outlined in the LRTP, distributed SU funds across three primary project categories: congestion management, new bridge construction, and bicycle and pedestrian infrastructure. MPO staff issued a Call for Projects based on the Board's allocation policy, which operated on a five-year rotation among these categories. Pending MPO Board approval the (draft) 2050 LRTP may loosen restrictions on SU funds to make them available for road capacity projects that include bicycle and pedestrian facilities. The MPO will issue Calls for Projects on an as needed basis as the current backlog of projects in design are programmed for construction.

The MPO will provide guidance so that member entities are able to submit bicycle and pedestrian infrastructure projects that align with the current, adopted Bicycle and Pedestrian Master Plan. This Plan, which is incorporated by reference into the Long-Range Transportation Plan (LRTP), serves as a roadmap for the MPO's ongoing investment in cycling and pedestrian infrastructure. Projects may span local, collector, and arterial roads, regional trail connections, Bicycle and Pedestrian Safety Audits (RSAs), and special studies.

The Network Needs analysis in Section 5 outlines the MPO's priorities for funding projects, with an emphasis on safety, equity, and connectivity. The MPO prioritizes projects based on these criteria and ensures they support the larger goal of a more integrated and connected transportation network. In addition to the current Bicycle and Pedestrian Master Plan, projects from adopted Community Walkability Studies and the Bicycle and Pedestrian Master Plans of the cities of Marco Island, Naples, and Everglades City, as

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well as the County's Community Redevelopment Areas (CRAs), are considered eligible for funding. All these plans are referenced in the MPO's funding decisions to create a cohesive and regionally connected system.

MPO staff will also coordinate with FDOT and local entities to implement recommendations from Bicycle and Pedestrian Safety Audits (RSAs) that have been specifically endorsed by the MPO Board. This ensures that safety improvements are prioritized and executed effectively, addressing concerns identified through the RSA process and working toward a safer transportation network for all users.

Evaluation and Assessment Criteria

The evaluation criteria in this Plan have been carefully developed with significant input from the Bicycle-Pedestrian Advisory Committee (BPAC), MPO, and technical staff. These criteria serve as a vital tool for prioritizing and ranking proposed improvements across the region, fostering discussion and providing a structured framework for selecting projects that best meet the region's goals. This updated evaluation system represents an ongoing commitment to safety, connectivity, and equity for all community members.

A key update in the 2025 plan is the introduction of two distinct scoring systems, one for local projects and another for regional projects. This differentiation acknowledges the unique nature of projects within urban areas compared to those that are part of broader regional networks, such as the SUN Trail. Both scoring systems include weighted factors, reflecting the priorities and needs identified through stakeholder input. These weightings ensure that critical elements such as safety and equity receive the appropriate emphasis in the final ranking process.

MPO Call for Projects Process

MPO staff will issue Call for Projects on an as-needed basis, following the MPO's adopted TMA SU "Box" allocation/programming policy. The MPO Board retains full discretion to modify this policy in accordance with the MPO Bylaws and the Public Participation Plan.

Member entities are encouraged to submit projects that align with the Network Needs analysis (Section 5) and other relevant local plans incorporated by reference in this document. Each member entity may submit up to one project per jurisdictional area represented by voting membership on the Board. MPO staff may submit one project of regional significance. This results in a total of 10 projects for each Call for Projects. The allocation of projects is as follows:

- 5 projects within the unincorporated County
- 2 projects within the City of Naples
- 1 project in the City of Marco Island
- 1 project in the City of Everglades City (including Chokoloskee and Plantation Island)
- 1 project submitted by MPO staff

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Eligibility Criteria and Preliminary Assessment

MPO staff will first review each project submission to determine eligibility. Incomplete or improperly submitted projects will not be considered for funding. The following criteria must be met:

Timeliness: The submitting agency must confirm that the project can be designed and constructed within the chosen funding cycle.

Constructability: The project must be well-defined, with confirmed right-of-way, and include a complete and accurate cost estimate.

Funding Availability: The submitting agency must demonstrate that sufficient funding is available to cover both the project's costs and any necessary matching funds.

Project Rating and Ranking

The BPAC will conduct the initial rating and ranking of projects using the following criteria.

Local Projects Evaluation Criteria

This plan includes a dedicated evaluation framework for local projects, focusing on community-scale improvements that enhance mobility and accessibility. Local projects typically address infrastructure needs within neighborhoods, cities, or towns, such as sidewalks, bike lanes, intersection enhancements, and connections to schools, parks, or local transit hubs.

This evaluation process prioritizes projects that improve safety, promote connectivity, and provide equitable access for all residents. Below is an overview of the criteria, along with their weights and scoring, followed by a detailed explanation of the scoring system used to rank proposed projects.



Descriptions and Associated Weights

Criteria	Weight (%)	Description
Safety	35	Evaluates the project's potential to enhance safety for all users. This includes the analysis of high-risk areas using crash data and fatality statistics, the implementation of Safe Routes to Schools, the incorporation of targeted safety improvements, the adoption of a Safe System Approach, and the inclusion of public education initiatives aimed at promoting safe behaviors.
Multimodal and Regional Connections	20	Assesses the project's integration with other modes of transportation (e.g., transit, biking, walking) and its ability to enhance regional connectivity. Projects that create seamless links between different transportation modes, improve regional mobility, and demonstrate a commitment to eliminating barriers and enhancing ADA accessibility to promote inclusivity for all individuals and abilities will score higher.
Cost	20	Evaluates the financial feasibility of the project, including both initial construction costs, long-term maintenance expenses, and the cost per capita. Projects that demonstrate cost-effectiveness, efficient use of available funds, and provide a reasonable cost per person impacted will score higher.
Education	10	Evaluates the efforts to educate and engage the community regarding bicycle and pedestrian safety, benefits, and infrastructure. Projects that incorporate educational programs, workshops, outreach efforts, or materials promoting safe and sustainable transportation practices will be considered. Consideration will also be given to initiatives that partner with local schools, organizations, and other stakeholders to raise awareness and foster a culture of safety
Public Involvement and Support	5	Evaluates the level of community engagement and support for the project. Projects with strong public involvement, transparent processes, and demonstrated community backing will receive higher scores.
Micromobility	5	Evaluates the project's support for micromobility options such as electric scooters, e-bikes, and other small, lightweight, and low-speed personal transportation devices designed for use on bike lanes or multi-use paths. Projects that integrate infrastructure, connections, and policies to encourage safe, sustainable, and space-efficient micromobility use will score higher.

Economic Development	5	Assesses the project's potential to stimulate economic growth, revitalize communities, and attract tourism. Projects that demonstrate clear economic benefits and support local revitalization efforts will score higher.

Scoring System

Cost

Note: *Subsurface utilities should not compose more than 25% of the cost of the proposed improvement.*

- Proposed Costs are 25% above budget; cost per capita is over $500 – 1 Point
- Proposed Costs are 10-25% above budget; cost per capita is $300-$500 – 2 Points
- Proposed Costs are within budget; cost per capita is $150-$300 – 3 Points
- Proposed Costs are 10% under budget; cost per capita is $75-$150 – 5 Points

Education

- Proposed improvement includes no formal education component or only minimal effort (e.g., sign or brochure) with no community engagement or partnerships – **1 Point**
- Proposed improvement incorporates a defined educational activity (e.g., workshop, campaign, or materials) and some level of community or stakeholder engagement, such as outreach to schools or local groups – **3 Points**
- Proposed improvement features a comprehensive and sustained education strategy with multiple outreach methods and strong partnerships with schools, organizations, or agencies to promote lasting culture of bicycle and pedestrian safety – **5 Points**

Multimodal and Regional Connections

- Proposed improvement does not address any connectivity needs identified by public input– **1 Point**
- Proposed improvement fills a need in an area lacking connectivity based on public input and addresses some prioritized infrastructure gaps – **3 Points**
- Proposed improvement completely fills a prioritized infrastructure gap identified in this plan, significantly enhancing connectivity – **5 Points**

Public Involvement and Support

- Proposed improvement has not been presented or discussed with the public in a formal setting – **1 Point**

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- Proposed improvement has shown moderate community engagement and has been discussed in a formal setting through committee and public meetings – **3 Points**
- Proposed improvement has strong public support and has been identified as a priority in this plan – **5 Points**

Safety

- Proposed improvement addresses a safety concern that has been raised by the public but lacks detailed analysis – **1 Point**
- Proposed improvement addresses a less severe safety concern without a safety audit to measure the effectiveness of the improvement – **2 Points**
- Proposed improvement addresses a serious safety concern, supported by statistical and crash data – **3 Points**
- Proposed improvement addresses safety concerns involving accidents with serious to fatal outcomes and is backed by statistical data along with a safety audit to measure effectiveness – **5 Points**
- **Bonus:** Proposed improvement is located on a street segment or intersection identified in the High Injury Network (HIN) from the Collier MPO Comprehensive Safety Action Plan, as described in Section 2, Crash Analysis and Safety Focus, of this Bicycle and Pedestrian Master Plan – **6 Points**

Micromobility

- Proposed improvements provide no support for micromobility options or related policies – **1 Point**
- Proposed improvement fully supports micromobility by integrating relevant infrastructure and policies – **5 Points**

Economic Development, Revitalization, Tourism

- The proposed improvements address a local need but will have minimal impact on tourism or the overall appearance of the area – **1 Point**
- The proposed improvements are in an area with moderate tourist traffic, offering some benefit but with less impact on tourism – **3 Points**
- The proposed improvements focus on key infrastructure in high traffic tourism areas, enhancing the visual appeal and visitor experience. Beautification efforts, particularly those that increase shade along shared use paths, may also be included if initiated and funded by local governments – **5 Points**

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Prioritization and Ranking

1. Scoring – Each Proposed project will be scored against the above criteria using the scoring matrix. The scores will then be multiplied by the assigned weights to calculate the total score for each project.

2. Ranking – Proposed projects will be ranked based on their total score, with the highest-scoring project receiving the highest priority.

3. Review and Adjustment – The BPAC may consider extenuating factors when reviewing the initial ranking and distribution arrived at through the scoring system and make adjustments supported by the goals of the BPMP.

4. Final Order – The final list of projects will reflect both the scoring and equitable distribution across the County. Projects will be ordered within each municipality based on their score, and the overall prioritization system will be designed to maximize impact and benefit for all residents of Collier County. The BPAC's priority recommendations will be reviewed by the Citizens and Technical Advisory Committees and presented to the MPO Board. The Board has final approval authority and may make changes accordingly.

Regional Projects Evaluation Criteria

This plan introduces a new and distinct evaluation framework for regional projects, tailored specifically for proposed improvements to the SUN Trail network or other significant regional connections. Unlike the previous plan, this approach provides a separate evaluation system to address the unique scope and impact of regional projects. These projects focus on enhancing long-distance mobility, closing critical gaps in the trail network, and connecting communities, key destinations, and transportation systems across the region.

The evaluation process prioritizes projects that improve safety, regional connectivity, and accessibility while supporting broader goals such as economic development and equity. Below is an overview of the criteria, along with their weights and scoring, followed by a detailed explanation of the scoring system used to rank proposed projects.

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Descriptions and Associated Weights

Criteria	Weight (%)	Description
Safety	35	Evaluates the project's potential to enhance trail user safety by reducing conflicts with vehicles, addressing high-risk areas for bicycle and pedestrian injuries, and correcting existing safety deficiencies along the trail.
Cost	25	Assesses the cost-effectiveness of the project by considering the expenses for the PD&E (Project Development and Environment) Study, planning, initial construction, and long-term maintenance. Additionally, the evaluation includes the cost in relation to the population benefiting from the proposed improvement, particularly those residing within approximately 5 miles of the trail corridor.
Connectivity	20	Evaluates how effectively the project links to existing trails, transportation networks, or key destinations, and whether it creates a new connection between areas or populations that were previously disconnected.
Feasibility	10	Evaluates the practicality of the regional trail project by looking at technical, financial, and logistical factors. It considers whether the project can be built given the terrain and existing infrastructure, if the estimated budget is realistic, and whether it can be completed within an achievable timeline. It also assesses the likelihood of obtaining necessary permits and approvals from local agencies and stakeholders
Economic Development	5	Analyzes the potential for the project to promote local economic growth, including tourism and business opportunities.
Project Phase	5	Prioritize projects that are construction-ready, with all necessary documents and plans approved and slated for construction. Projects in advanced phases will be ranked higher, especially when funding is limited, compared to projects that are still in the planning or pre-construction stages.

Scoring System

For a proposed regional project to be considered for scoring, it must meet specific eligibility requirements. These criteria ensure that projects align with the goals and standards of the SUN Trail program. Eligible projects must:

1. **Meet Design Criteria:** Ensure the proposed trail complies with current standards, including being a separate, paved, two-lane, non-motorized path.
2. **Identify a Maintaining Agency:** Demonstrate the capacity and commitment of the agency responsible to manage the ongoing maintenance and operation of the proposed improvements.

Note: *The final determination of project eligibility for SUN Trail funding is made by FDOT.*

Projects meeting the above requirements will proceed to evaluation against the scoring criteria.

Safety

- Proposed Improvement address a safety concern that has been identified and raised by the public but lacks detailed analysis – **1 Point**
- Proposed Improvement address a less severe safety concern without a safety audit measuring the potential effectiveness of the improvement – **3 Points**
- Proposed Improvement addresses a serious concern, supported by statistical and crash data showing the proposed improvements need along with a safety audit showing the success of the implementation of the improvement – **5 Points**

Cost

Note: *Subsurface utilities should not compose more than 25% of the cost of the proposed improvement.*

- Proposed improvement costs exceed $1 million, or the population benefiting is fewer than 500 people within 5 miles of the trail corridor – **1 Point**
- Proposed improvement costs between $500,000 and $1 million, or the population benefiting is between 500 and 1,000 people within 5 miles of the trail corridor – **3 Points**
- Proposed improvement costs less than $500,000, or the population benefiting more than 1,000 people within 5 miles of the trail corridor – **5 Points**

Connectivity

- Proposed improvement provides improvements and adds to the overall trail alignment but does not close any gaps and or provides linkage to areas that have been previously disconnected – **1 Point**

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- Proposed improvement adds to the overall trail alignment and provides connection to existing trails – **3 Points**
- Proposed improvement adds to the overall trail alignment and provides connection to existing trails and completes a gap to connect a population that were once recently disconnected – **5 Points**

Feasibility

- Proposed improvement has major technical challenges (e.g., difficult terrain or significant infrastructure conflicts), an unrealistic or unverified budget (±50% or more of similar projects), lacks defined timeline, and/or faces uncertain or unlikely permitting and approval pathways – **1 Point**
- Proposed improvement has some technical or logistical constraints (e.g., utility conflicts, constrained right-of-way), a budget estimate within ±25% of similar projects, an achievable 3–5-year timeline, and moderately complex but likely permitting requirements – **3 Points**
- Proposed improvement has minimal physical or regulatory obstacles, a realistic and well-documented budget (within ±15% of similar projects), a clear timeline for completion within 1–3 years, and high confidence in timely permitting and agency approvals – **5 Points**

Economic Development

- Proposed improvements have limited or no potential to promote local growth, with little to no impact on tourism or business opportunities. Projected local revenue is less than $100,000 annually – **1 Point**
- Proposed improvements are expected to moderately contribute to local economic growth, attracting some tourism or business activity. Projected increase in local revenue is expected to be between $100,000 and $500,000 annually – **3 Points**
- Proposed improvements are expected to boost local economic growth by attracting tourism or business, with projected annual revenue increases over $500,000. Enhancements may include shade-focused beautification or recreational amenities along shared use paths, if led and funded by local governments. – **5 Points**

Project Phase

- The proposed improvement is currently in the planning stage and awaiting approval from the necessary authorities to move forward to the construction phase – **1 Point**
- The proposed improvement has completed all required planning and design phases, obtained all approvals and permitted, and is ready for construction – **5 Points**

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Prioritization and Ranking

1. Ranking – Projects are ranked in descending order, with the highest total scores given priority as they offer the greatest overall value based on the selected criteria. The top-ranked project should be prioritized first, as it has shown the most significant impact across key areas, ensuring that resources are allocated to the most beneficial projects for the community. Flexibility is important, as changes in funding, community needs, or other factors may require adjustments to priorities. Regular reviews will help ensure that the SUN Trail Network continues to meet its goals effectively

2. Review and Adjustment – The BPAC may consider extenuating factors when reviewing the initial ranking and distribution arrived through the scoring system and make adjustments supported by the goals of the BPMP.

3. Final Order – The final list of projects will reflect both the scoring and equitable distribution across the County. Projects will be ordered within each municipality based on their score, and the overall prioritization system will be designed to maximize impact and benefit for all residents of Collier County. The BPAC's priority recommendations will be reviewed by the Citizens and Technical Advisory Committees and presented to the MPO Board. The Board has final approval authority and may make changes accordingly.

Additional Funding Sources and Technical Support at the Federal, State, and Local Levels

The projects identified in this plan are located throughout unincorporated Collier County and its member entities—Naples, Marco Island, and Everglades City. These projects range from local collector, and arterial roads to greenway connections, Road Safety Audits (RSAs), and specialized studies. However, the need for bicycle and pedestrian improvements far exceeds available funding. This section outlines additional funding sources and strategies that can help bridge the funding gap and fully implement this plan.

While federal, state, and local funds play a central role in project funding, the potential for partnerships with other agencies can also provide additional financial support. Bicycle and pedestrian improvements may be incorporated into broader roadway construction projects or funded independently. MPO member entities also have jurisdictional authority over land use and zoning and can collaborate with developers to address gaps in bicycle and pedestrian infrastructure as new homes, communities, and commercial areas are built. Additionally, member entities can submit projects for funding through state and federal grant programs, such as Safe Routes to School (SRTS) and National Highway Traffic Safety Administration (NHTSA) funding, and have their own plans, policies, and funding sources to address project priorities.

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Federal Programs

1. **Surface Transportation Block Grant Program (STBG)**
   A percentage of a state's STBG apportionment (after set-asides) is obligated to areas based on their relative share of the state's population. Urbanized areas, such as the Collier MPO, which has a population over 200,000, receive a designated amount of SU funds each year for programming projects eligible for STBG funding. The MPO Board prioritizes these projects for programming during the new 5th year of the Transportation Improvement Program (TIP), with FDOT covering the required 20% local match.

   STBG projects cannot be located on local (residential) roads or rural minor collectors, except for recreational trails, pedestrian and bicycle projects, and Safe Routes to School (SRTS) projects. SRTS projects require a 50% local match.

2. **Highway Safety Improvement Program (HSIP)**
   HSIP funds are allocated by FDOT on a statewide basis and can be used for pedestrian and bicycle safety improvements, subject to meeting FDOT's criteria and statewide prioritization. Projects funded by HSIP focus on improving highway safety using a data-driven approach and must be in line with the state's Strategic Highway Safety Plan. Eligible HSIP projects include pedestrian hybrid beacons, roadway improvements to separate pedestrians and motor vehicles (such as medians or pedestrian islands), and Road Safety Audits (RSAs), including Bicycle and Pedestrian Safety Audits.

3. **Recreational Trails Program (RTP)**
   RTP is a federally funded competitive grant program that provides financial assistance for the development of recreational trails, trailheads, and related facilities. Managed by the Florida Department of Environmental Protection (DEP) Office of Greenways and Trails, the RTP supports projects that enhance public access to trails for both motorized and non-motorized activities. The most recent Call for Projects (Fiscal Year 2018) identified funding availability up to $200,000 for non-motorized projects and up to $500,000 for motorized projects. For more information on the program, visit Florida DEP RTP.

4. **Federal Transit Administration (FTA) Funds**
   A variety of FTA funding is available to support the design, construction, and maintenance of pedestrian and bicycle projects that enhance or are related to public transportation facilities. Eligible projects include improvements for pedestrian access to public transportation facilities, such as walkways, bicycle storage, and infrastructure for transporting bicycles on public transportation vehicles.

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5. **National Highway Traffic Safety Administration (NHTSA) Funds**
   NHTSA provides funding to state DOTs for programs and activities aimed at improving traffic safety and reducing crashes, serious injuries, and fatalities. NHTSA funds are apportioned annually based on population and road miles, with occasional additional funding for specific program areas if there is documented evidence of need. These funds can be used for various safety programs, including pedestrian and bicycle safety, and are awarded by FDOT as sub-grants to traffic safety partners.

Emphasis areas under the pedestrian and bicycle safety program include:

- Increasing awareness of safety issues and compliance with traffic laws
- Developing a systematic approach to identify locations and behaviors prone to bicycle and pedestrian crashes
- Creating urban and rural environments that support and encourage safe walking and biking

State and Local Funding

In addition to federal funding programs, MPO member entities have access to state and local funds. Collier County, for example, often funds bicycle and pedestrian infrastructure improvements on County-owned roads using local funds. MPO member entities can also leverage their own local policies, funding sources, and partnerships to address project priorities that may not be eligible for MPO funding.

Local transportation improvements incorporating bicycle and pedestrian facilities can often be funded through local impact fees, transportation surtaxes, and general funds, which provide additional resources for enhancing mobility and connectivity within communities.

Opportunities for Collaboration and Technical Assistance

MPO member entities are encouraged to collaborate with developers to address infrastructure gaps and enhance connections as new developments are constructed. These collaborations can provide opportunities for funding bicycle and pedestrian improvements through public-private partnerships. Additionally, technical assistance is available from federal and state programs, supporting project development, grant applications, and compliance with design and safety standards.

Supporting National, State, and Local Legislative Initiatives

Efforts to combat aggressive driving and speeding include:

- Enforcing speeding and aggressive driving laws by focusing on high-risk locations

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- Incorporating technology and other innovations at high-risk locations
- Evaluating hotspots and implementing appropriate engineering countermeasures to control speed and reduce aggressive driving

Technical Assistance

The Florida Department of Transportation (FDOT) Pedestrian and Bicycle Safety Program (PBSSP), updated in October 2021, is part of Florida's comprehensive five-year strategy to reduce serious or fatal traffic crashes involving pedestrians and cyclists. This plan uses goal-oriented decision-making, data-driven investments, and strategic resource allocation to improve safety. The PBSSP aligns with the Florida Transportation Plan, Florida's Strategic Highway Safety Plan, and Florida's Highway Safety Improvement Program. Additionally, the Alert Today Florida campaign, which is a part of this initiative, raises public awareness about pedestrian and bicycle safety through education and outreach. For more information, visit the FDOT Pedestrian and Bicycle Safety Program.[17]

Shared-Use Non-motorized (SUN) Trail Network

Managed by the Florida DEP Office of Greenways and Trails, the SUN Trail program funds non-motorized, paved, shared use trails that are part of the Florida Greenways and Trails System. The Southwest Coast Connector Trail alignment is eligible to receive SUN Trail funds if local entities agree to assume maintenance responsibilities. For more information about the program and eligibility, visit the SUN Trail Program[18].

USDOT BUILD Grant Program

The Better Utilizing Investments to Leverage Development Grant Program, formerly known as the RAISE and TIGER programs, provides funding for multi modal, multi-jurisdictional transportation projects that are difficult to support through traditional Department of Transportation programs. With nearly 14.3 billion dollars dedicated to fifteen rounds of National Infrastructure Investments, BUILD focuses on projects with significant local or regional impacts. Funding is available to a wide range of public entities including municipalities, counties, port authorities, tribal governments, and metropolitan planning organizations, enabling direct collaboration with those who own and maintain transportation infrastructure. For more details and application guidance, visit the USDOT BUILD Grant Program[20].

[17] https://www.fdot.gov/Safety/programs/pedestrian-and-bicycle-safety
[18] www.floridasuntrail.com
[20] https://www.transportation.gov/BUILDgrants

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Plan Monitoring and Reporting

The 2025 Collier MPO Bicycle-Pedestrian Master Plan (BPMP) is a dynamic document that represents the shared vision of the MPO, stakeholders, and the community, supported by thorough analysis conducted during its development. However, adopting the Plan is only the first step in building a comprehensive and effective active transportation network. Success lies in the ongoing collaboration, implementation, and assessment of its performance.

Regular monitoring and reporting on performance measures and targets are essential to evaluate the Plan's effectiveness and identify areas for improvement. These performance metrics will be integrated into the MPO Director's Annual Report to the MPO Board and shared with the Bicycle and Pedestrian Advisory Committee. This report will also outline programmed projects addressing gaps and safety concerns identified in studies such as safety audits, Walkable Community reports, and Bicycle-Pedestrian Safety Audits, as mandated by the MPO Congestion Management Process (CMP).

Safety Performance

Safety is a top priority and aligns with the national goals outlined in the FAST Act. The MPO is committed to Target Zero, aiming to eliminate non-motorized fatalities and serious injuries. In support of this commitment, the MPO adopted the FDOT safety performance targets, including interim goals to track progress.

The MPO Director's Annual Report tracks non-motorized fatalities and serious injuries annually, analyzing trends over a five-year period. However, it is essential to interpret these trends in context:

- The earliest impact of prioritized projects may only materialize six years after programming due to the multi-phase nature of project development.
- Phases, including design, environmental clearances, right-of-way acquisition, and construction, often span several years, meaning project completion can take up to nine years.
- Safety improvements may be diluted if projects are geographically dispersed or fail to directly address critical safety issues.

The Annual Report will continue to monitor progress toward Target Zero and interim performance targets, providing insights into the Plan's impact on safety outcomes.

Network Expansion Performance

Expanding the active transportation network is key to achieving the Plan's goals. The MPO tracks the following metrics, as established in the 2022 CMP, to measure network growth:

- Centerline miles of paved shoulders and bike lanes
- Linear miles of Shared Use Paths (adjacent to roadways and within greenways)
- Connector sidewalks on arterial roads, defined as facilities bridging gaps in the cycling network

These metrics are updated using tools such as satellite imagery and GIS (Geographic Information Systems). Member entities are encouraged to inventory and report on local sidewalk networks as part of their asset management programs, leveraging GIS for accuracy and efficiency.

BPMP Priority Project Implementation Performance

The MPO Director's Annual Report will include updates on BPMP priority projects progressing through key development stages, such as:

- Inclusion in the MPO Project Priority Listing for SU box funding, RTAP funding, or other grants
- Programming in the MPO TIP/FDOT STIP for design and construction
- Funding allocations in local CIPs or other planning mechanisms
- Successful award of external grant funding

These updates provide transparency and accountability, showcasing the Plan's progress toward implementation.

Agency Distribution

To ensure equitable distribution of resources and benefits across the County, MPO Staff will track and report to the BPAC and the MPO Board on the distribution over a five- and ten-year period.

Plan Updates and Amendments

The BPMP will be updated every five years to align with the MPO's Long-Range Transportation Plan (LRTP) cycle. The Plan may also be amended as needed:

- **Major amendments**: Proposed by MPO staff or member entities to address unforeseen opportunities or challenges, such as new funding sources or priority changes. These require MPO Board approval and adhere to the adopted Public Participation Plan.
- **Minor revisions**: Include typographical corrections, mapping updates, or data adjustments. These changes will be documented with track changes and shared with the MPO Board, advisory committees, and email listserv(s) for review, per the Public Participation Plan.

The monitoring, evaluation, and adaptability of the BPMP ensures it remains a relevant and effective tool for improving active transportation in Collier County.

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COLLIER
Metropolitan Planning Organization

2025

COLLIER MPO BICYCLE PEDESTRIAN MASTER PLAN



COLLIER METROPOLITAN PLANNING ORGANIZATION
2885 HORSESHOE DRIVE S.
NAPLES, FL 34104
PHONE: (239)-252-8192

Collier MPO
BICYCLE-PEDESTRIAN
MASTER PLAN 2025

EXECUTIVE SUMMARY
COMMITTEE ACTION
ITEM 7B

Comprehensive Safety Action Plan (CSAP) – Review and Comment on Final Draft

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OBJECTIVE: For the committee to review and comment on the CSAP final draft.

CONSIDERATIONS: TY Lin has prepared a PowerPoint presentation on the final draft of the CSAP included as **Attachment 1**. The final draft for your review and comment in a printable version is included as **Attachment 2**. The plan is available to be viewed in its original 11" x 17" form on the MPO website at: https://www.colliermpo.org/other-programs-documents/traffic-safety/. Collier County Transportation Planning staff are currently in the process of reviewing and providing comments.

Next Steps:

Meeting Date	Meeting Body	Member action or presentation (where member action may not be required)
8/25/25	Technical and Citizens Advisory Committees (TAC & CAC)	Review and comment
9/12/25	MPO Board	Review and comment
9/16/25	Bicycle and Pedestrian Advisory Committee (BPAC)	Endorsement
9/17/25	Congestion Management Committee (CMC)	Presentation to committee
9/22/25	Technical and Citizens Advisory Committees (TAC & CAC)	Endorsement
10/10/25	MPO Board	Adoption

STAFF RECOMMENDATION: Provided for committee review and comment.

Prepared By: Sean Kingston, AICP, PMP, CFM, Principal Planner

ATTACHMENTS:

1) TY Lin August 19, 2025 Presentation to BPAC
2) CSAP final draft printable version (8 ½" x 11")



Collier MPO Safe Streets and Roads for All (SS4A) Comprehensive Safety Action Plan

Purchase Order No. 4500230335

BPAC Meeting

Location: VIRTUAL MEETING

Date: 8/19/2025, 9AM-11AM

Time: Presentation: 20 minutes; 10 minutes Q & A

AGENDA

1. Project Introduction *(2 minutes)*
    a. Project Objectives
2. Draft Plan Overview *(10 minutes)*
3. Draft Action Plan Recommendations *(15 minutes)*
4. Next Steps *(3 minutes)*
5. Question & Answer Session *(10 minutes)*

7B Attachment 1
BPAC 8/19/25



BPAC Meeting

Collier Metropolitan Planning Organization (MPO)
Safe Streets and Roads for All (SS4A)
Comprehensive Safety Action Plan (SAP)

August 19, 2025

Contract No. 18-7432 MP

SAFETY ACTION PLAN

AGENDA

1. **Introduction**
2. **Plan Overview**
3. **Draft Action Plan Recommendations**
   a. Guiding Goals
   b. Implementation Actions
   c. Countermeasure Toolkit
   d. Prioritizing Safety Projects
   e. Designing Safer Roadways
   f. Progress and Transparency
4. **Next Steps**
5. **Questions & Answers**



Purpose & Benefits of an SAP

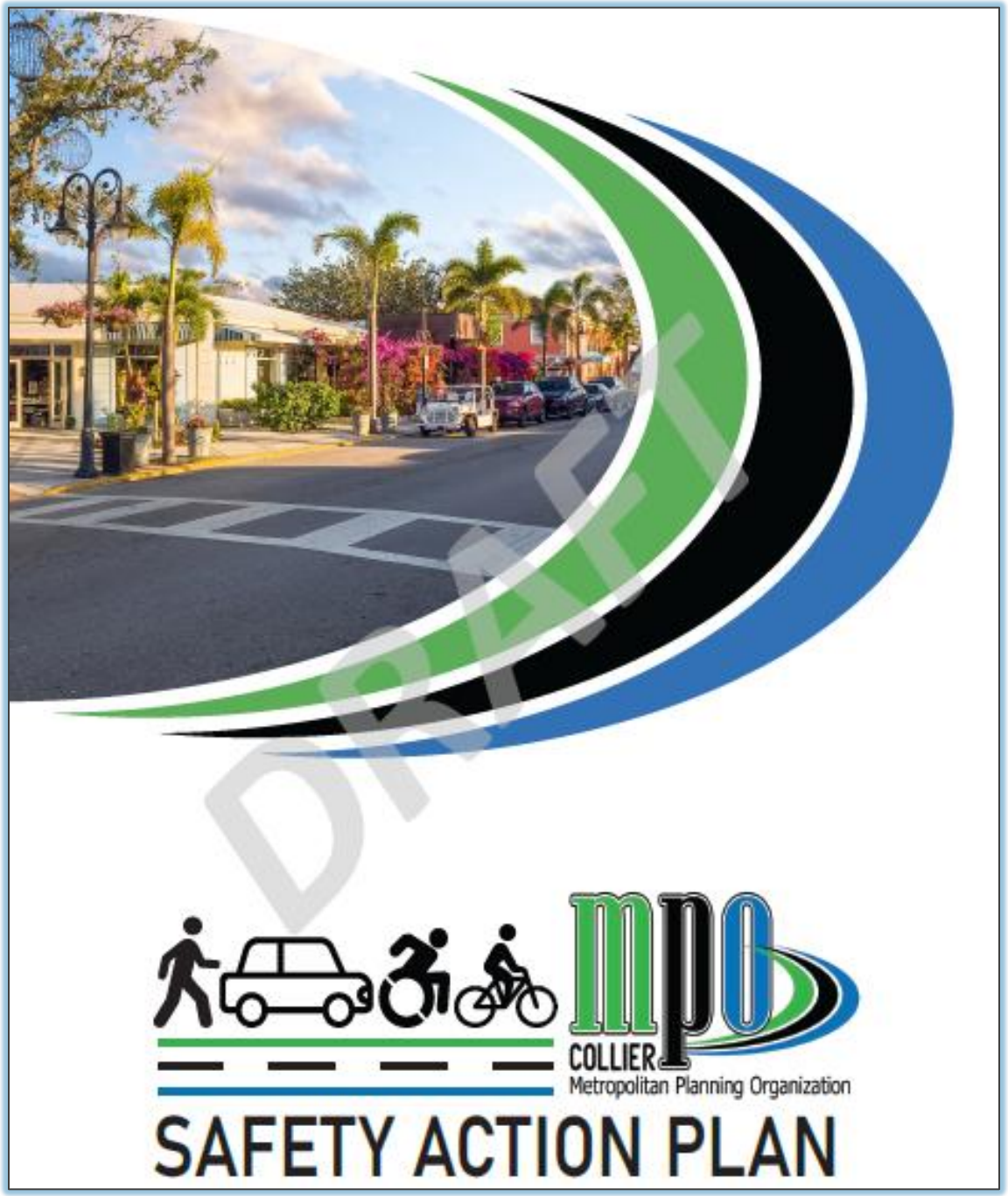
Purpose

- Establish a framework for implementing strategies to eliminate serious and fatal injuries for all roadway users.
- Supports revision and adoption of policies and procedures
- Guides decision making and funding allocation.

Benefits

- Allows agencies and organizations to take a **proactive approach** to understanding and addressing safety concerns.
- **Improve relationships** with the public and other key stakeholders.
- **Increase multi-disciplinary collaboration** to reduce traffic-related fatalities and injuries.
- Identifies safety needs and includes strategies and a list of prioritized projects to pursue to better leverage existing and future **funding.**

SAFETY ACTION PLAN



Overview: Table of Contents

Introduction

- How to Use this Plan
- Vision Zero and The Safe System Approach

Developing This Action Plan

- Steering Committee
- MPO Board, Advisory Committees, and Tribal Nations
- Public Outreach
- Assessment of Current Policies & Practices

Engagement and Collaboration Results

- Perceptions of Traffic Safety in Collier County
- Most Frequently Noted Concerns
- Locations of Concern
- Supported Interventions

Safety Analysis

- Fatal and Severe Crash Trends
- Fatal and Severe Crash Characteristics
- Contributing Factors
- Traffic Crashes & Underserved Communities in Collier County

High Injury Network

- Analysis Approach
- All-Modes High-Injury Network
- Bicycle and Pedestrian High-Injury Network

Action Plan

- Guiding Goals
- Implementation Actions
- Countermeasure Toolkit
- Prioritizing Safety Projects
- Designing Safer Roadways

Progress and Transparency

- Performance Measures and Reporting

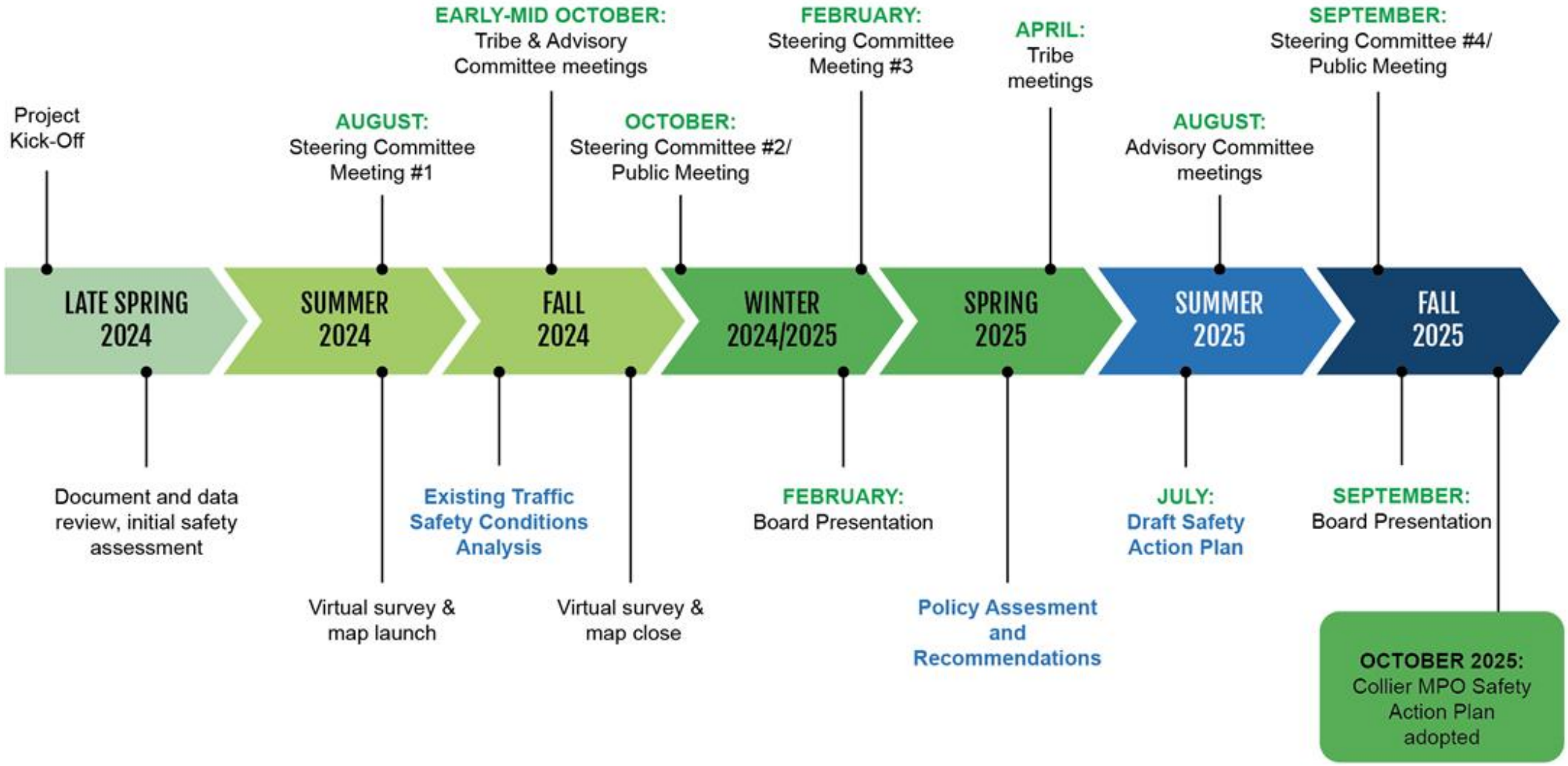
Developing This Action Plan

This plan will represent the results of ongoing collaboration.

- Steering Committee
  - Four meetings held with representatives from various agencies to guide plan development
- MPO Board, Advisory Committee, and Tribal Nations
  - Two touch points with Advisory Committees and Tribal Nations (Miccosukee and Seminole)
- Public Outreach
  - Online survey, interactive map, and two online workshops
- Assessment of Current Policies & Practices
  - Peer scan, existing plan review, stakeholder interviews and Steering Committee policy survey



Timeline

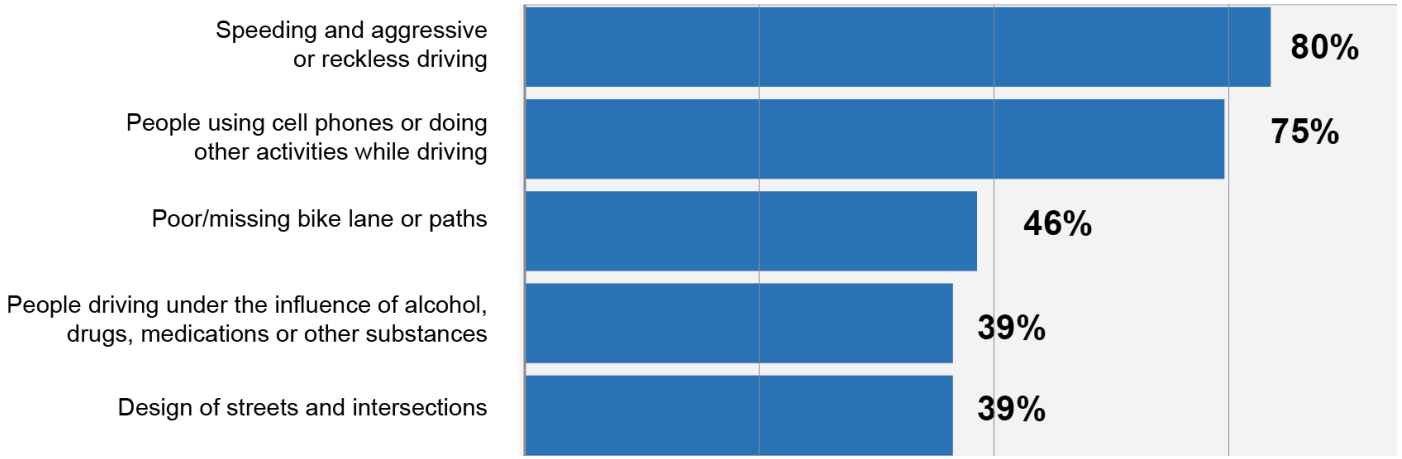


Anticipated adoption

Engagement and Collaboration

The feedback from the stakeholder meetings and public outreach highlighted several recurring themes that informed the goals and recommendations included in this Plan.

Top Five Roadway Safety Concerns



Top Five Preferred Traffic Safety Measures

1. Increasing safety enforcement
2. Providing better bicycle facilities including wider bicycle lanes and separated bike paths
3. Making major roads safer for pedestrians
4. Improving rural roads
5. Improving roadway lighting

These supported measures echoed feedback heard in both Steering Committee, the virtual public workshop, and Advisory Committee discussions.

All-Modes High Injury Network

The All-Modes HIN captures a substantial portion of all KSI crashes within Collier County in just a small portion of roadways and intersections.

The HIN includes:

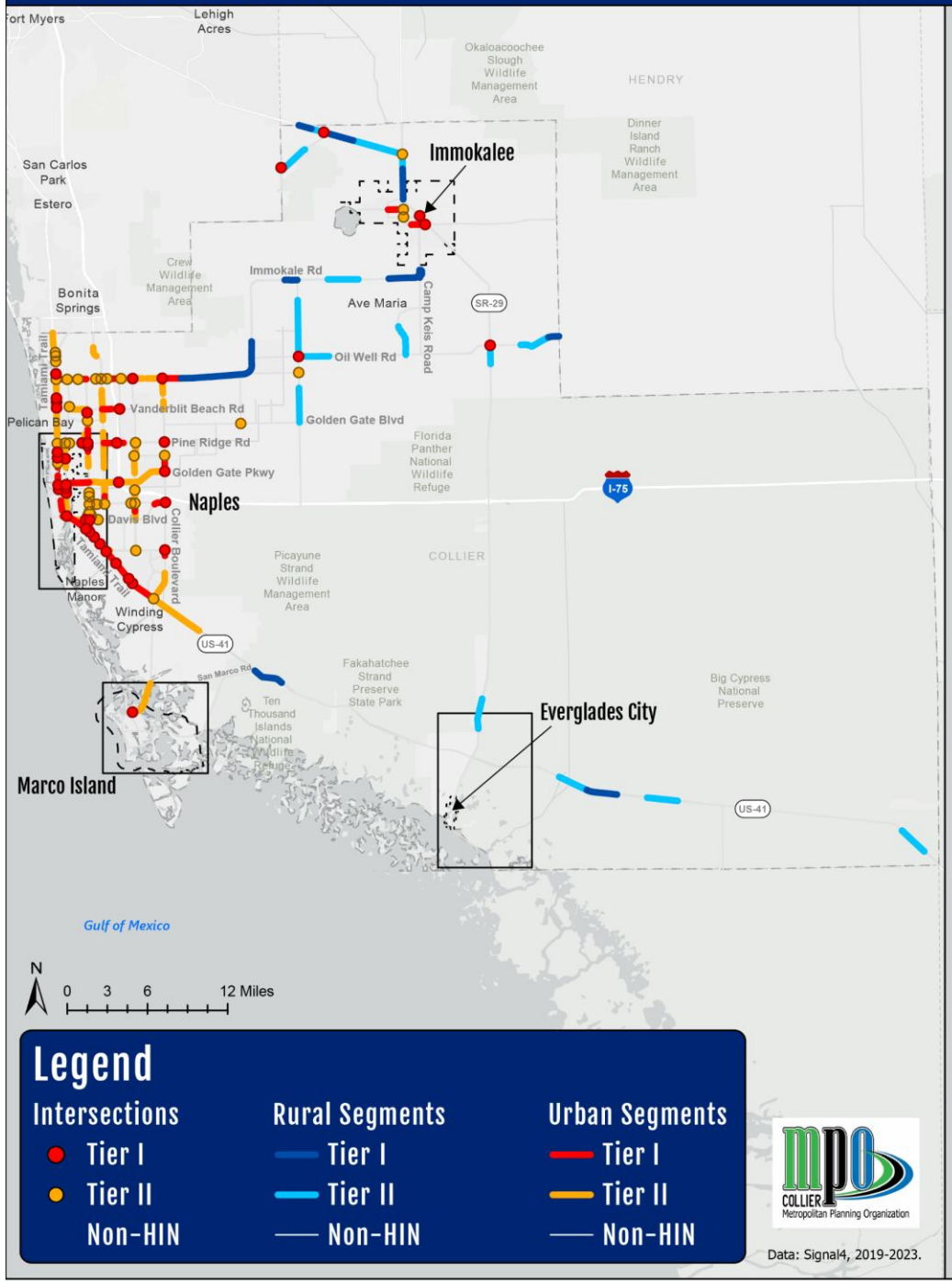
- 463 KSI crashes
- 56 miles of urban roadways
- 49.1 miles of rural roadways
- 80 intersections,
  equating to (4.5 miles of roadway)

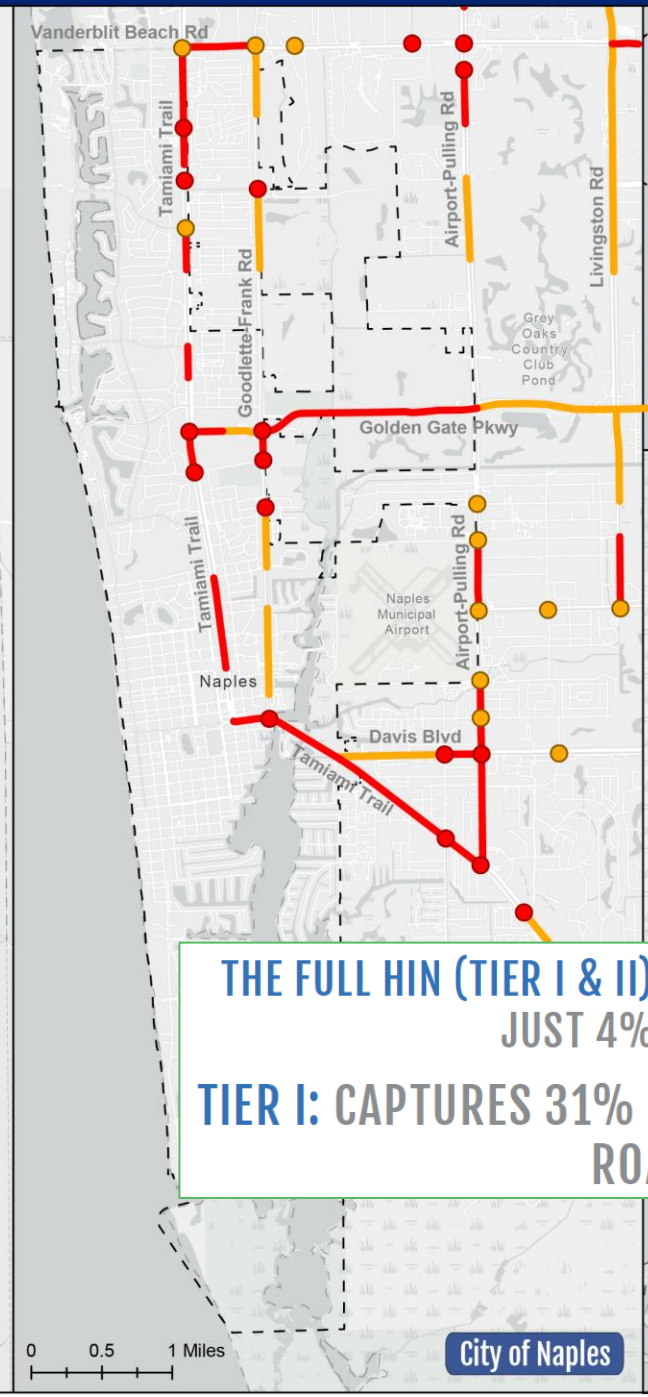
The HIN provides a prioritized list of locations where to focus safety improvements.

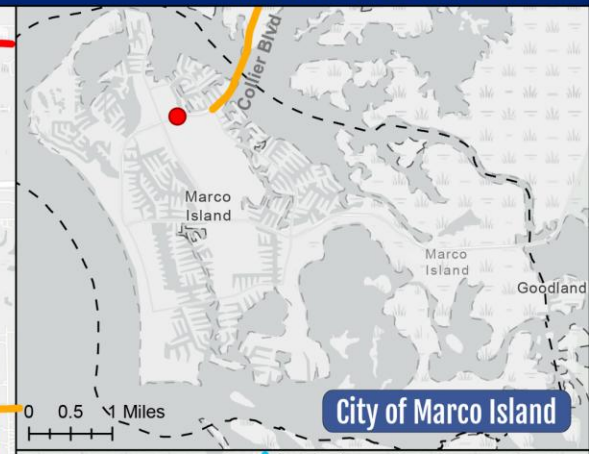
Top 10* Locations: Intersections

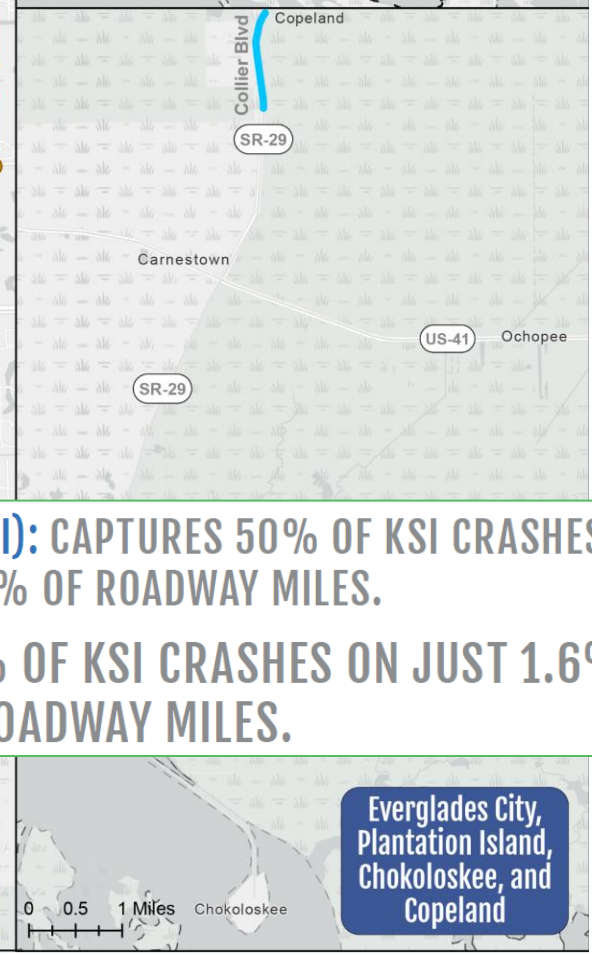
RANK	LOCATION	PLANNING COMMUNITY	KSI CRASHES
1	Oil Well Rd & FL-29	*Royal Fakapalm*	*7*
2	Golden Gate Pkwy & Collier Blvd	*Golden Gate*	*3*
3	Neapolitan Way & Tamiami Trl	*City of Naples*	*4*
4	Airport Rd & Pine Ridge Crossing	*Central Naples*	*4*
5	FL-82 & Corkscrew Rd	*Corkscrew*	*4*
6	Tamiami Trl & Goodlette-Frank Rd	*City of Naples*	*4*
7	Tamiami Trl & Airport Rd	*East Naples*	*4*
8	Golden Gate Pkwy & Goodlette-Frank Rd	*City of Naples*	*4*
9	Davis Blvd & Airport Rd	*East Naples*	*4*
10	Davis Blvd & Collier Blvd	*Royal Fakapalm*	*3*

**For full lists of Tier I locations, please see SAP Appendix B: Existing Conditions & Safety Analysis Memorandum*









THE FULL HIN (TIER I & II): CAPTURES 50% OF KSI CRASHES ON JUST 4% OF ROADWAY MILES.

TIER I: CAPTURES 31% OF KSI CRASHES ON JUST 1.6% OF ROADWAY MILES.

Action Plan: Guiding Goals

Collier MPO is committed to reducing serious injuries and fatalities by 25% by 2050.

To achieve this, the SAP outlines 6 guiding goals. These goals were developed in alignment with the Safe System approach and informed by public and stakeholder engagement.

1. **Promote a culture of safety among the public and within agencies** to prevent severe crashes by addressing the root causes of dangerous driving, including channels such as increased traffic education and enforcement.

2. **Design safe streets for everyone** with improvements that reduce speeds and mitigate risky driving and support complete streets and multimodal design.

3. **Collaborate to integrate safety into multi-jurisdictional policies** and processes, reducing severe crash risks.

4. **Expand safe mobility options** by securing resources for accessible, affordable, multimodal, and connected networks for all ages and abilities.

5. **Enhance data sharing and transparency** throughout the county and among the member entities.

6. **Increase and expand implementation pathways**, including funding support.

Action Plan: Implementation Actions

MPO has developed

17 strategies and **41 actions**

to implement to achieve these goals.

"Time to implement"

Short (<1year)
Medium (1-3 year)
Long (>3years)

"Cost to implement"

$ - low cost
$$ - medium cost
$$$ - high cost

"Leader"

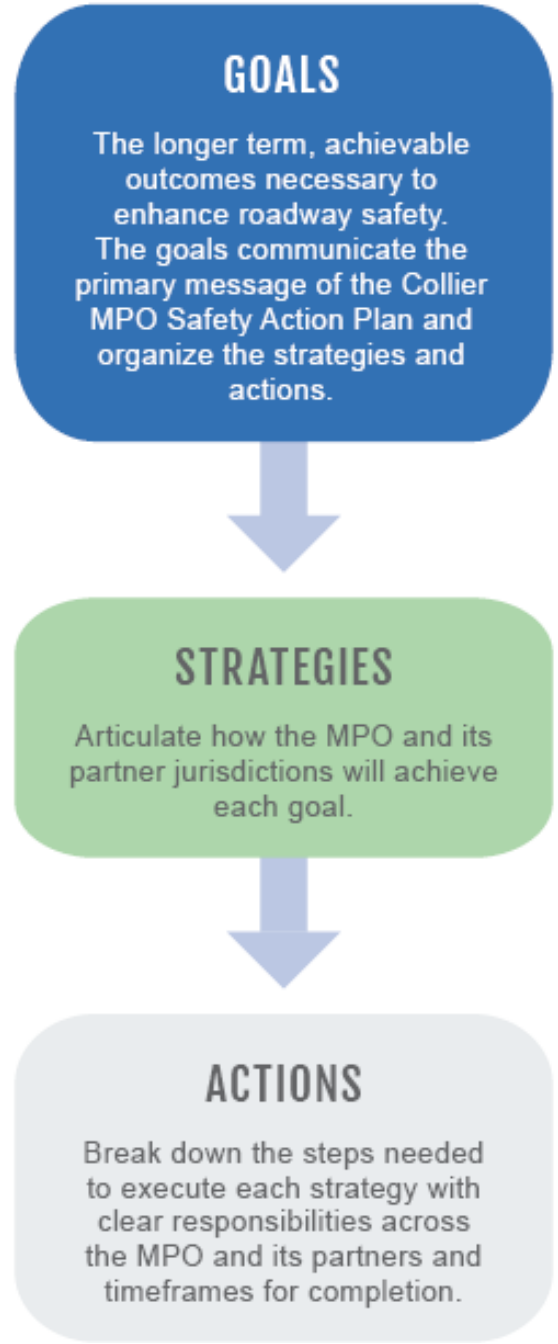
Party responsible for implementation

"Contributor"

Party responsible for supporting role

"Performance Metric"

Suggested achievable demonstration that action is being implemented



1 Promote a culture of safety among the public and within agencies to prevent severe crashes by addressing the root causes of dangerous driving, including channels such as increased traffic education and enforcement.

Strategy 1.2. Strengthen the capacity of law enforcement to strategically enforce roadway regulations and efficiently allocate resources to better protect vulnerable road users

Action	Time to Implement	Leader	Contributor	Performance Metric
1.2.2. *Provide training for law enforcement on bicycle and pedestrian traffic laws, including the latest definitions for electric bicycles and other new mobility devices*	*Medium*	*Local Police Departments*	*Local Governments*	*Number of trainings held*

Strategy 1.5. Increase awareness about e-bikes and their safe operation through targeted outreach

Action	Time to Implement	Leader	Contributor	Performance Metric
1.5.1. *Conduct a public awareness campaign on safe e-bicycle operation and sharing the roadway*	*Medium*	*Local Governments, Police/Fire/EMS*	*Collier MPO, NPC, CTST*	*Number of media releases, hits*
1.5.2. *Offer training courses and resources for safe e-bicycle use, including how to operate e-bikes, understanding roadway regulations, and safe operation*	*Medium*	*Local Governments & Police Departments*	*Collier MPO*	*Number of trainings held*

2 Design Safe Streets for Everyone with improvements that reduce speeds and mitigate risky driving and support complete streets and multimodal design.

Strategy: 2.2. Develop and fund projects that implement a toolkit of proven safety countermeasures that can be implemented through roadway projects focused on contributing factors to fatal and serious injury crashes, including speeding and roadway departure

Action	Time to Implement	Leader	Contributor	Performance Metric
2.2.1. *Distribute the Safety Action Plan Countermeasures Toolkit, featuring traffic calming measures as options for enhancing traffic safety in local roadway projects*	*Long*	*Collier MPO*	*FDOT / Local Governments*	*Publish, distribute and fund projects that implement the SAP traffic calming toolkit*
2.2.2. *Implement speed feedback signs on the HIN at locations with a higher share of speed related crashes and/or near land-uses that generate pedestrian and bicycle trips*	*Short*	*Collier County*	*FDOT / Collier MPO / Local Governments*	*Number of speed feedback signs installed*

2 Design Safe Streets for Everyone with improvements that reduce speeds and mitigate risky driving and support complete streets and multimodal design.

Strategy: 2.3. Develop complete networks for all modes that prioritize connectivity

Action	Time to Implement	Leader	Contributor	Performance Metric
2.3.1. *Implement projects to close sidewalk gaps identified in the BPMP and projects to meet ADA accessibility requirements*	*Long*	*Local Governments*	*Collier MPO*	*Submit projects for MPO and local funding*
2.3.2. *Implement the recommendations of the Bicycle-Pedestrian Master Plan, implement projects that create a well-connected network of facilities linking residential areas to schools, parks, business, and public transit*	*Long*	*Local Governments*	*Collier MPO*	*Increased bike/ped facility lane miles*

2 Design Safe Streets for Everyone with improvements that reduce speeds and mitigate risky driving and support complete streets and multimodal design.

Strategy: 2.4. Ensure all road users are prioritized in the planning of transportation infrastructure

Action	Time to Implement	Leader	Contributor	Performance Metric
2.4.1. *Incorporate Complete Streets principles in roadway corridor design and construction projects*	*Medium*	*Local Governments*	*Collier MPO, FDOT*	*Updated transit and bike/ped facilities inventory (five-year cycle)*
2.4.2. *Separate bicyclists from pedestrians and vehicles through design strategies such as shared-use paths and separated bike lanes, as recommended in the Bicycle-Pedestrian Master Plan*	*Medium*	*Local Governments*	*Collier MPO*	*Updated transit and bike/ped facilities inventory (five-year cycle)*
2.4.3. *Conduct outreach to encourage pedestrian, bicycle, motorcycle, micromobility and other non-vehicular road users to participate in public meetings or new roadway projects*	*Short*	*Local Governments*	*Collier MPO*	*Representation of user groups at public meetings and comments*

4 Expand Safe Mobility Options by securing resources for accessible, affordable, multimodal, and connected networks for all ages and abilities.

Strategy: 4.1. Protect and connect active transportation users through dedicated infrastructure

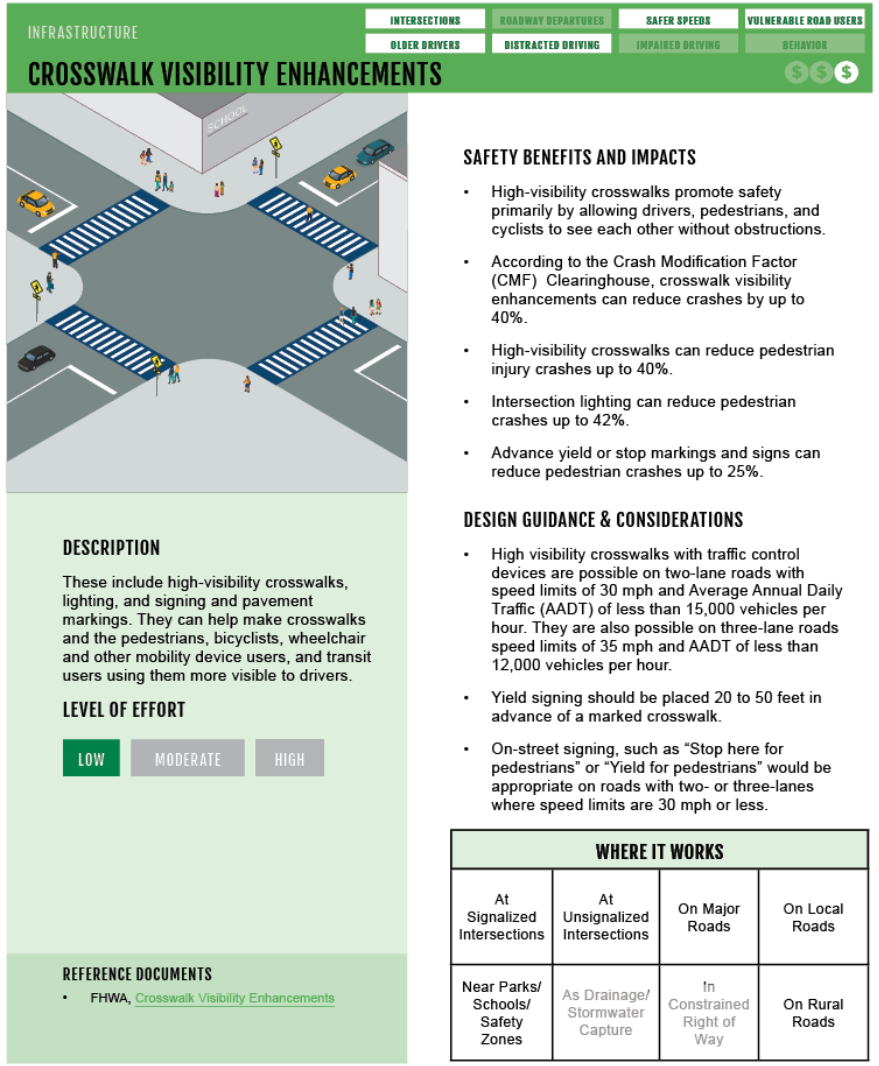
Action	Time to Implement	Leader	Contributor	Performance Metric
***4.1.1**. Consistent with the BPMP, prioritize recommendations from locally adopted plans and studies that focus on investments in transit, bicycle, and pedestrian connectivity near community destinations such as schools and parks*	*Medium*	*Local Governments*	*Collier MPO, FDOT*	*Track MPO Board priority projects for bicycle, pedestrian, and transit connectivity*

6 Increase and expand implementation pathways, including funding support.

Strategy: 6.1. Pursue federal and state funding sources for traffic safety

Action	Time to Implement	Leader	Contributor	Performance Metric
6.1.1. *Leverage alignment with other MPO priorities such as congestion mitigation, bike/ped planning, the Shared Use Non-Motorized (SUN) Trail network, wildlife connectivity, and active transportation network development) to strategically pursue funding streams not explicitly designated for safety, but capable of supporting traffic safety enhancements*	*Medium*	*Collier MPO*	*Local Governments*	*Share of TIP projects that include safety countermeasures and elements*

Action Plan: Countermeasure Toolkit



INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

CROSSWALK VISIBILITY ENHANCEMENTS

$ $ $

DESCRIPTION

These include high-visibility crosswalks, lighting, and signing and pavement markings. They can help make crosswalks and the pedestrians, bicyclists, wheelchair and other mobility device users, and transit users using them more visible to drivers.

LEVEL OF EFFORT

LOW | MODERATE | HIGH

REFERENCE DOCUMENTS

- FHWA, Crosswalk Visibility Enhancements

SAFETY BENEFITS AND IMPACTS

- High-visibility crosswalks promote safety primarily by allowing drivers, pedestrians, and cyclists to see each other without obstructions.
- According to the Crash Modification Factor (CMF) Clearinghouse, crosswalk visibility enhancements can reduce crashes by up to 40%.
- High-visibility crosswalks can reduce pedestrian injury crashes up to 40%.
- Intersection lighting can reduce pedestrian crashes up to 42%.
- Advance yield or stop markings and signs can reduce pedestrian crashes up to 25%.

DESIGN GUIDANCE & CONSIDERATIONS

- High visibility crosswalks with traffic control devices are possible on two-lane roads with speed limits of 30 mph and Average Annual Daily Traffic (AADT) of less than 15,000 vehicles per hour. They are also possible on three-lane roads speed limits of 35 mph and AADT of less than 12,000 vehicles per hour.
- Yield signing should be placed 20 to 50 feet in advance of a marked crosswalk.
- On-street signing, such as "Stop here for pedestrians" or "Yield for pedestrians" would be appropriate on roads with two- or three-lanes where speed limits are 30 mph or less.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

- The SAP includes a toolkit of safety countermeasures that can be applied along the High-Injury Network
- The toolkit is intended to be a resource for the MPO and its partner local governments as they develop projects to address safety challenges
- Not an exhaustive list

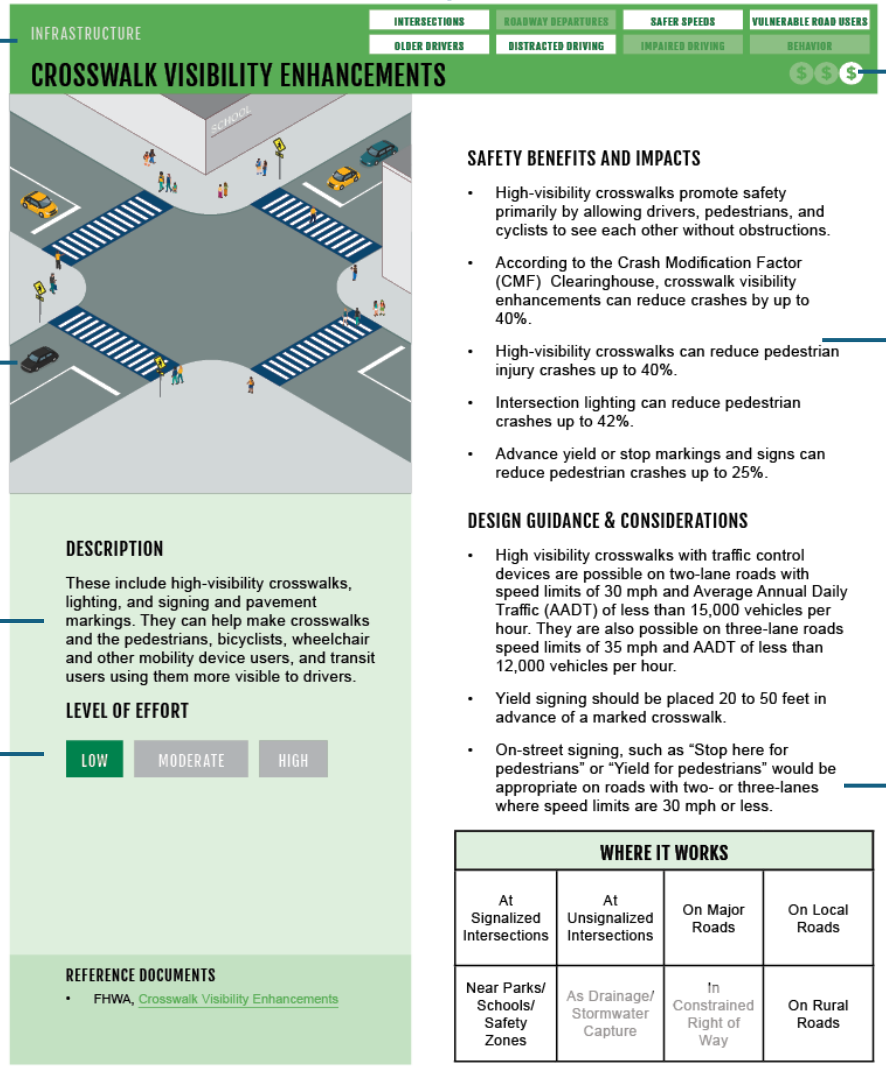
Action Plan: Countermeasure Toolkit

Countermeasure: Indicates the type of intervention and name of the countermeasure.

Illustration: A visual representation of the countermeasure. Some colors are used to emphasize the tool, and do not represent real-world color conditions.

Description: A brief summary outlining the countermeasure and its intended outcome.

Level of Effort The estimated effort required to implement the countermeasure:
Low – Quick to implement with minimal planning and little disruption to traffic or roadways.
Medium – Requires more coordination and resources, often involving layout changes, minor utility work, policy adjustments, or temporary lane closures.
High – Involves significant road network changes, extensive planning, engineering, and possible utility relocations, with major traffic disruptions.



Emphasis Area: Identifies the situations or safety issue where the countermeasure is most effective.

Cost Estimate
The estimated budget required to implement the countermeasure.
$ – Can be implemented through striping, signage, traffic signalization changes, or minor pavement work.
$$ – May involve pavement and curb adjustments, as well as minor drainage or utility modifications.
$$$ – Requires major roadway reconstruction, potentially including utility relocations or installations, traffic signal upgrades, and significant drainage improvements.

Safety Benefits and Impacts
Provides a summary of how the countermeasure enhances safety for road users, drawing on information from supporting resources. As applicable, this section describes the expected impact on travel behavior, including potential reductions in crashes, vehicle speeds, and traffic volumes.

Design Guidance & Consideration
As applicable, outlines the typical dimensions for each countermeasure. While these guidelines offer a general reference, they may not cover all scenarios, so engineering judgment should be applied during design and implementation.

Action Plan: Prioritizing Safety Projects

The MPO will support traffic safety projects through various means:

1. **Discretionary Grants**
    1. MPO will provide letter of support for projects consistent with the SAP

2. **MPO Call for Projects Process – State and Federal Programmatic Funds**
    1. Member governments can submit projects to the MPO for state and federal funds
    2. MPO staff will conduct a preliminary review for timeliness, constructability, and funding availability
    3. Technical staff on the SAP Steering Committee will review, rate and rank projects based on the evaluation criteria and scoring system developed by the MPO for the Call for Projects

CRITERIA	POINTS
Tier I HIN – project addresses specific location identified on the Tier I HIN	*10 points*
Tier II HIN – project addresses specific location identified on the Tier II HIN	*5 points*
High Crash Segment or Intersection: Top 10 list (Intersection, Urban, or Rural)	*5 points*
Includes elements from the Implementation Actions matrix, Countermeasure Toolkit, FHWA Proven Safety Countermeasures, or complete streets design	*10 points*
Project meets multiple Action Plan strategies	*5 points*
Project is referenced in multiple MPO or local agency Plans	*5 points*
Local funds are contributed towards meeting project costs	*10 points*
Bonus points determined by committee consensus	*10 points*
	60 max.

Action Plan: Designing Safer Roads

- SAP highlights five High-Injury Network (HIN) segments and one intersection
- Includes crash data, types, and contributing factors
- Provides high-level recommendations for future project development
- Member governments can build on these for discretionary grants or MPO funding opportunities

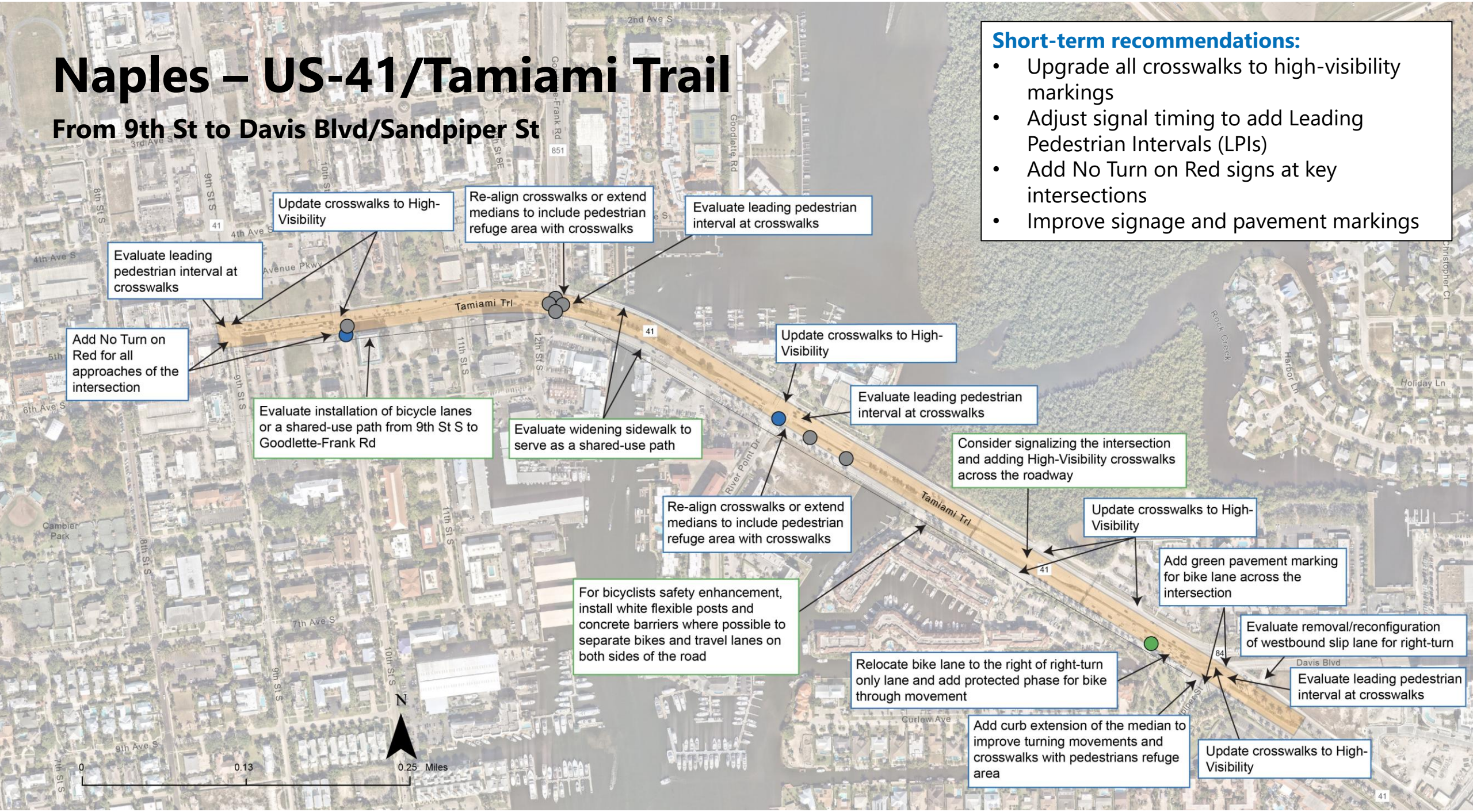
- **Main Street (9th Street to New Market Road)** – *Immokalee*
- **Immokalee Road (US 41 to Airport Road)** – *Naples*
- **Golden Gate Parkway (US 41 to Vinland Drive)** – *Naples*
- **US 41 (9th Street to Davis Boulevard)** – *Naples*
- **Airport Road (Davis Boulevard to US 41)** – *Naples*
- **N Collier Boulevard and E Elkham Circle** – *Marco Island*

Naples – US-41/Tamiami Trail

From 9th St to Davis Blvd/Sandpiper St

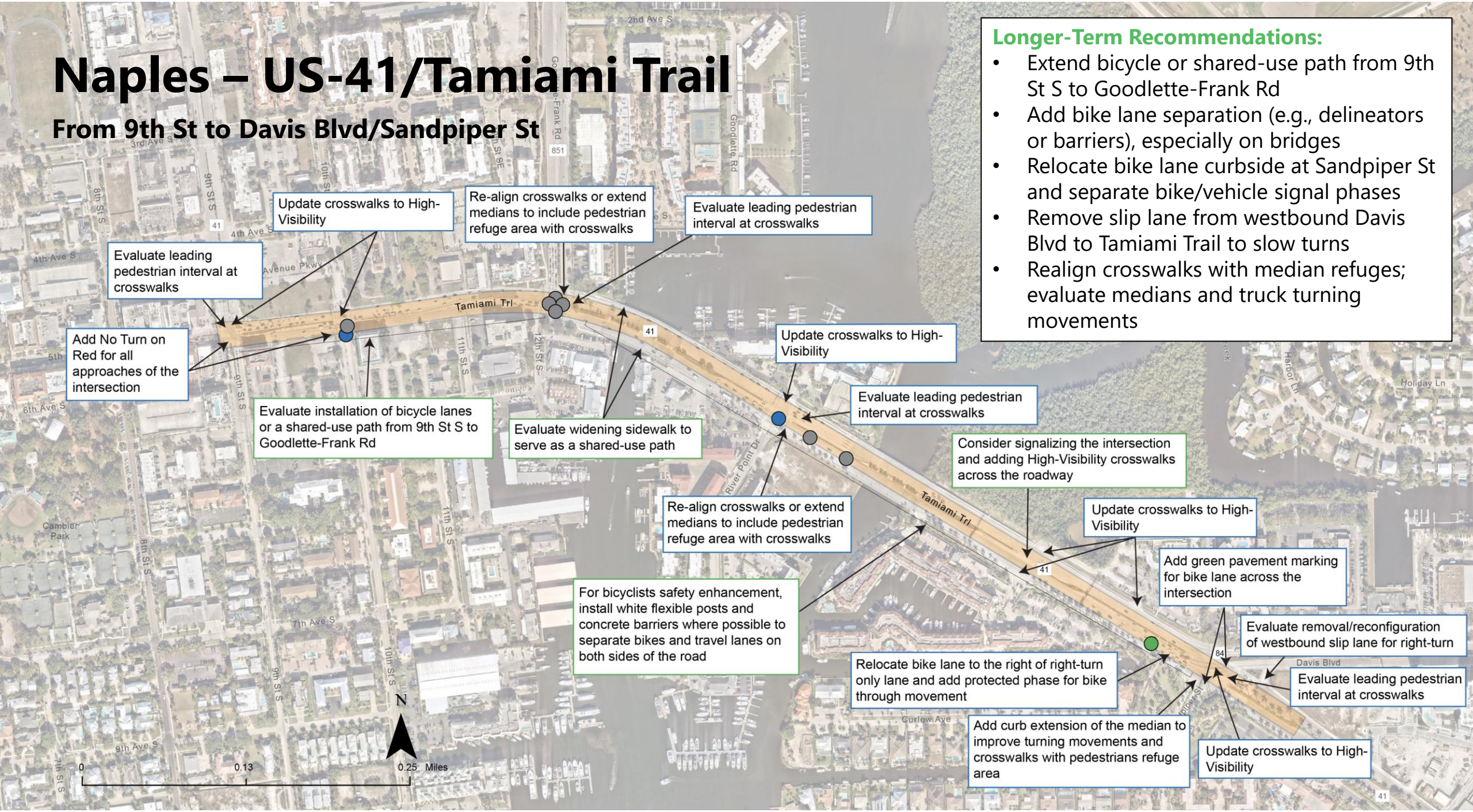
Short-term recommendations:

- Upgrade all crosswalks to high-visibility markings
- Adjust signal timing to add Leading Pedestrian Intervals (LPIs)
- Add No Turn on Red signs at key intersections
- Improve signage and pavement markings



Naples – US-41/Tamiami Trail

From 9th St to Davis Blvd/Sandpiper St



Longer-Term Recommendations:

- Extend bicycle or shared-use path from 9th St S to Goodlette-Frank Rd
- Add bike lane separation (e.g., delineators or barriers), especially on bridges
- Relocate bike lane curbside at Sandpiper St and separate bike/vehicle signal phases
- Remove slip lane from westbound Davis Blvd to Tamiami Trail to slow turns
- Realign crosswalks with median refuges; evaluate medians and truck turning movements

Progress and Transparency

- **To measure progress, Collier MPO will track the key performance indicators.**
- Implementation Actions and associated performance measures will be evaluated annually
- Progress will be reported through an expanded MPO Annual Report
- Additional monitoring conducted through continued involvement of Steering Committee members and active participation in the Collier County Community Traffic Safety (CTST)

METRIC	DESIRED TREND	GOAL
Number of fatalities	*Declining*	25% reduction in the number of serious injuries and fatalities from crashes by 2050
Rate of fatalities per 100 million vehicle miles traveled (VMT)	*Declining*	
Number of serious injuries	*Declining*	
Rate of serious injuries per 100 million VMT	*Declining*	
Number of non-motorized fatalities and serious injuries	*Declining*	

Next Steps

- Technical and Citizens Advisory Committees (TAC & CAC): 8/25
  - Review of Draft Safety Action Plan
- MPO Board: Friday, 9/12
  - Review of Draft Safety Action Plan
- Committees again in September
  - Endorsement
- MPO Board: Friday, 10/10
  - Adoption of final Safety Action Plan



Q & A



Any questions?

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COLLIER
Metropolitan Planning Organization

SAFETY ACTION PLAN

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ACKNOWLEDGEMENTS

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The Collier MPO Safety Action Plan (SAP) is funded in part through the U.S. Department of Transportation Safe Streets and Roads for All (SS4A) grant program. The content of this report does not necessarily represent the official views or policies of the U.S. Department of Transportation.

The development of the SAP was made possible through the leadership of the Collier Metropolitan Planning Organization (MPO) Board, the support of MPO staff and advisory committees, the guidance of the SAP Steering Committee, and the valuable input of community members who helped shape the Plan.

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Sergeant Greg Sheridan, *City of Naples Police Department, Traffic Safety*

Tami Scott, *Bayshore Community Redevelopment Agency, Program Manager*

Tony Camps, *Collier County Emergency Management Services*

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Plan Prepared by: TYLin

A LETTER FROM LEADERSHIP



An open letter to Collier County residents and visitors:

As a former Collier County Sheriff, traffic safety is an ongoing concern of mine. I am well acquainted with the tremendous suffering that traffic collisions cause victims and their families, and the cost to society at large.

We must do everything in our power to eliminate serious injuries and fatalities resulting from traffic crashes. We are making progress. The Board of County Commissioners voted unanimously in April 2025 to approve amendments to the Pedestrian Safety Ordinance in response to the significant rise in e-bike usage. The amended ordinance enhances public safety by establishing clear, consistent guidelines for cyclists, pedestrians and motorists.

The Safety Action Plan further expands the effort to improve traffic safety through public education and outreach, constructing bicycle and pedestrian facilities where they are most needed and designing safe streets for all users.

Personal responsibility is essential. I encourage everyone to join me in taking the Commitment to Zero Pledge:

"I recognize that crashes are preventable, and my choices matter to my life and the lives of others. I pledge to make safety a priority, to focus on driving, to slow down, be aware of my surroundings, walk, ride, or roll in a safe and predictable manner, and to set an example for those around me."

Sincerely,

Commissioner Dan Kowal, *Collier MPO Chair*

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MPO RESOLUTION #2025-XX
A RESOLUTION OF THE COLLIER METROPOLITAN PLANNING ORGANIZATION APPROVING THE COMPREHENSIVE SAFETY ACTION PLAN

WHEREAS, the Collier Metropolitan Planning Organization received funding through the Fiscal Year 2023 Safe Streets and Roads for All (SS4A) Discretionary Grant Program to develop a Safety Action Plan; and

WHEREAS, in accordance with the requirements of the SS4A grant program, the Safety Action Plan must include an MPO Resolution committing to eventual goal of zero roadway fatalities and serious injuries achieved through an ambitious percentage reduction of fatalities and serious injuries by a specific date; and

WHEREAS, traffic crashes are a serious threat to the health and safety of residents and visitors to Collier County; and

WHEREAS, the Collier MPO has consistently adopted the Florida Department of Transportation's (FDOT) Vision Zero performance targets on an annual basis; and

WHEREAS, the Safety Action Plan establishes an ambitious goal of reducing fatalities and serious injuries by 25% by 2050 to serve as a call to action.

THEREFORE, BE IT RESOLVED by the Collier Metropolitan Planning Organization that:

1. The Safety Action Plan is hereby approved.
2. The Collier Metropolitan Planning Organization's Chairman is hereby authorized to execute this Resolution certifying the MPO Board's approval of the Safety Action Plan.

This Resolution was PASSED and duly adopted by the Collier Metropolitan Planning Organization Board after majority vote on this 10th day of October 2025.

Attest:

By: _____
Anne McLaughlin
MPO Executive Director

COLLIER METROPOLITAN
PLANNNING ORGANIZATION

By: _____
Commissioner Dan Kowal
Collier MPO Chair

Approved as to form and legality:

_____
Scott R. Teach, Deputy County Attorney

This resolution is included as a draft and will be replaced with the formal resolution upon adoption of the Safety Action Plan.

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GLOSSARY OF KEY TERMS

Areas of Persistent Poverty (APP) – defined by the U.S. Department of Transportation (USDOT) as geographic areas that have experienced long-term economic distress. This designation includes any census tract with a poverty rate of at least 20 percent as measured by the 2014 – 2018 5-year data series available from the American Community Survey of the Bureau of the Census.

Action – actionable, specific, measurable, time-bound commitments by Collier MPO and it's partners to achieve zero traffic fatalities or severe injuries.

American Community Survey (ACS) – an ongoing survey of approximately 3.5 million households conducted by the US Census Bureau. The ACS provides information about the nation's population, housing and workforce, and helps inform how federal funds are distributed.

Bicycle & Pedestrian Master Plan (BPMP) – a comprehensive guiding document for that prioritizes the development of a safe and interconnected bicycle and pedestrian network within Collier County.

Census Tract – small, statistical subdivision of a county containing 1,200 - 8,000 people. Boundaries to Census Tracts may be updated every 10 years.

Congestion Management Process (CMP) – a data-driven, 8-step process designed to improve transportation system performance by reducing traffic congestion in Collier County. It's a federally mandated process for MPOs with populations over 200,000, like Collier, and is integrated into the overall transportation planning process. The CMP identifies congestion hotspots, analyzes solutions, and prioritizes projects for funding to mitigate congestion.

Countermeasure – a strategy or tool effective in reducing roadway fatalities and serious injuries.

FDOT – Florida Department of Transportation.

Fatal Crash – a crash where one or more person is killed.

High Injury Network (HIN) – a collection of streets where a disproportionate number of severe and fatal crashes occur. The HIN is used to prioritize safety interventions and focus efforts on areas with higher rates of fatality or injury.

KSI Crash – a crash resulting in a fatality (killed) or serious injury.

Long Range Transportation Plan (LRTP) – a strategic document that identifies transportation priorities and investment needs over a 20-year planning horizon. It is federally required for MPOs and must be updated every five years to remain eligible for federal transportation funding. For the Collier MPO, the LRTP serves as the guiding framework for the future of the regional transportation network, including the cities of Naples, Marco Island, and Everglades City, and informs project selection and prioritization in the Transportation Improvement Program (TIP).

Metropolitan Planning Organizations (MPOs) – the regional planning agencies responsible for coordinating transportation planning and decision-making in urbanized areas with populations of 50,000 or more in the United States.

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Safe System Approach – US DOT's guiding paradigm to address roadway safety based on 5 elements: 1. Safer People; 2. Safer Roads; 3. Safer Vehicles; 4. Safer Speeds; 5. Post-Crash Care.

Serious Injury Crash – a crash that results in an incapacitating injury, which includes any non-fatal injury that prevents the person from walking, driving, or resuming their normal activities before the crash. This includes severe lacerations, broken or distorted limbs, skull/chest/abdomen injuries, unconsciousness at the scene, and similar serious conditions.

Severe Crash – a general term encompassing both fatal and serious injury crashes.

Systemic Safety – an approach to safety involving widely implementing improvements based on high risk roadway features correlated with specific severe crash types.

Transportation Improvement Program (TIP) – a five-year, fiscally constrained, multi-modal program of transportation projects within the Collier MPO Planning Area that will receive federal and/or state funding. The TIP is updated each year and includes highway, bridge, bicycle and pedestrian facilities, transit, congestion management, road and bridge maintenance, transportation planning and transportation disadvantaged projects.

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EXECUTIVE SUMMARY

By identifying risks, setting clear goals, and outlining concrete steps to improve roadway safety, the Collier MPO Safety Action Plan provides a roadmap to reduce serious and fatal traffic injuries by at least 25 percent by 2050.

Between 2019 and 2023, 929 severe crashes on Collier County non-interstate roadways killed 184 people and seriously injured 986 more. Like many regions across the country, we view these losses as tragic, unacceptable, and preventable. To address this challenge, the MPO is applying proven strategies used by peers nationwide and internationally, including the Safe System approach and proven safety countermeasures, to create safer, calmer roadways for all residents and visitors.

The **Safety Action Plan** is based on a comprehensive countywide crash analysis and shaped through collaboration with the Safety Action Plan Steering Committee, MPO advisory committees, tribal representatives from the Miccosukee and Seminole tribes, and input from the public.

It identifies the people most affected by severe crashes, the behaviors and roadway conditions that contribute to deaths and serious injuries, and the locations that make up the **High Injury Network** where improvements can be prioritized.

Supporting this effort is the **Countermeasures Toolkit**, which describes effective safety strategies available to local governments in Collier County. While not exhaustive, it highlights proven tools that can be implemented to improve safety, particularly along the High Injury Network.

The core of the Safety Action Plan consists of **six goals**, supported by 17 strategies and 41 implementation actions. As the MPO and its partners put these strategies into action, they will track progress, evaluate safety impacts, and adjust efforts to maximize results and save lives.

By working together, Collier MPO and its partner municipalities can transform Collier County's streets into places where everyone can travel safely without fear of injury or loss of life. **The six goals and their corresponding strategies are:**

1 Promote a culture of safety among the public and within agencies to prevent severe crashes by addressing the root causes of dangerous driving, including channels such as increased traffic education and enforcement.

- Conduct county-wide outreach and education around traffic safety best practices
- Strengthen the capacity of law enforcement to strategically enforce roadway regulations and efficiently allocate resources to better protect vulnerable road users
- Improve safety in parking lots through targeted outreach
- Improve the safety of motorcycle travel through targeted outreach
- Increase awareness about e-bikes and their safe operation through targeted outreach

2 Design safe streets for everyone with improvements that reduce speeds and mitigate risky driving and support complete streets and multimodal design.

- Prioritize funding for safety improvements along the High Injury Network (HIN)
- Develop and fund projects that implement a toolkit of proven safety countermeasures that can be implemented through roadway projects focused on contributing factors to fatal and serious injury crashes, including speeding and roadway departure
- Develop complete networks for all modes that prioritize connectivity
- Ensure all road users are prioritized in the planning of transportation infrastructure
- Prioritize infrastructure investments that increase the safety of school children, for all modes of travel

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3 Collaborate to integrate safety into multi-jurisdictional policies

and processes, reducing severe crash risks.

- Bolster the capacity of member entities to conduct traffic safety initiatives and programs
- Collaborate on funding opportunities that enhance Vision Zero goals

4 Expand safe mobility options by securing resources for accessible, affordable, multimodal, and connected networks for all ages and abilities.

- Protect and connect active transportation users through dedicated infrastructure
- Consistent with MPO's Bicycle and Pedestrian Master Plan and Congestion Management Plan, prioritize projects for safety funding that improve safety and accessibility for pedestrian and bicyclists

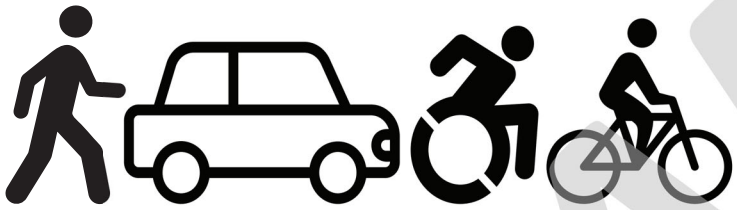
5 Enhance data sharing and transparency throughout the county and among the member entities.

- Establish the routine sharing of information to raise awareness of traffic safety initiatives and progress across the region

6 Increase and expand implementation pathways, including funding support.

- Pursue federal and state funding sources for traffic safety
- Support regional and local project readiness to move projects forward

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INTRODUCTION

HOW TO USE THIS PLAN
GUIDING VISION
& OVERVIEW OF THE SAFE SYSTEM APPROACH

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One life lost is too many.

Everyone in Collier County deserves safe streets, whether they walk, bike, take public transit, or drive and regardless of who they are or where they live. Yet between 2019 and 2023, 184 people lost their lives in traffic crashes within the county. Nearly a quarter of those people (23%, or 42) were vulnerable road users—cyclists and pedestrians—despite making up a much smaller share of overall travelers. This alarming trend highlights a troubling rise in roadway fatalities. The Collier Metropolitan Planning Organization (MPO) and its State and municipal partners no longer accept traffic fatalities and injuries as the status quo.

Traffic crashes are not unavoidable "accidents"—they are preventable incidents that demand a comprehensive response. Recognizing this, the Collier MPO has committed to eliminating traffic deaths and serious injuries. The Florida Department of Transportation (FDOT) has committed to achieving zero traffic fatalities or severe injuries across Florida's roadways with the statewide *Target Zero* initiative. Consistent with this goal, the Collier MPO adopted FDOT's safety performance targets beginning in February 2018 and has continued to do so on an annual basis.

These efforts align Collier MPO with the Federal Highway Administration's (FHWA) Zero Deaths Vision, the Florida Department of Transportation's (FDOT) Strategic Highway Safety Plan (SHSP), and Target Zero.

To achieve this vision, this **Comprehensive Safety Action Plan** provides a clear, data-driven roadmap for making Collier County's roads safer. Throughout this process, the MPO has engaged with community members and stakeholders to understand the challenges they face and the opportunities they support for safer streets.

Collier MPO is committed to reducing serious injuries and fatalities by 25 percent by 2050. By working together, Collier MPO and its partner municipalities can transform Collier County's streets into places where everyone can travel safely without fear of injury or loss of life.

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Goodland Bridge, Marco Island

HOW TO USE THIS PLAN

The Safety Action Plan serves as a strategic roadmap for reducing traffic deaths and serious injuries by identifying risks, setting clear goals, and outlining actionable steps to improve roadway safety.

As a practical tool, this Safety Action Plan:

- **Serves as a Blueprint for Safety Investments** – Identifies high-risk areas and guides infrastructure improvements. This can aid the MPO in prioritizing projects in both the Long Range Transportation Plan (LRTP) and ultimately the Transportation Improvement Program (TIP).
- **Aids in Securing Grant Funding and Resources** – Strengthens grant applications and justifies safety investments for both the MPO its local jurisdictions. The MPO can use the Safety Action Plan's findings to justify funding requests and to program projects into the TIP.
- **Guides Policy and Program Development** – Supports enforcement, education, data collection, and traffic engineering countermeasures that specifically address critical traffic safety issues within the area.
- **Fosters Collaboration Across Agencies** – Aligns efforts across agencies and defines responsibilities for the activities detailed in the Plan.
- **Acts as a Communication and Advocacy Tool** – Educates stakeholders and builds public support towards traffic safety projects and initiatives.
- **Establishes a Framework for Accountability** – Sets measurable goals and performance metrics to track progress towards achieving better traffic safety outcomes in the region.



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VISION ZERO AND THE SAFE SYSTEM APPROACH

Zero is the Goal. A Safe System is how we get there. The MPO acknowledges that even one death on our transportation system is unacceptable, and that safe mobility must be assured for all road users. This idea is sometimes called "Vision Zero," first adopted in Sweden and spread around the world. Collier MPO is honored to join the cities, counties, and planning organizations that have adopted this goal.

For achieving zero traffic deaths, this Plan applies the Safe System approach, a framework developed by the Federal Highway Administration (FHWA). This approach is based on two fundamental principles: humans make mistakes, and the human body has a limited ability to withstand crash impacts. In a Safe System, those mistakes should never result in death or serious injury.

The Six Principles of the Safe System Approach

1. **Deaths and serious injuries are unacceptable –** Safety must be the top priority.
2. **Humans make mistakes –** Roads should be designed to accommodate inevitable errors.
3. **Humans are vulnerable –** Roadway design and policies must account for the physical limits of the human body
4. **Responsibility is shared –** Governments, transportation agencies, drivers, and all road users play a role in safety.
5. **Safety is proactive –** Preventative measures should be taken before crashes occur.
6. **Redundancy is crucial –** Multiple layers of protection should exist to prevent serious crashes.

A comprehensive approach addresses every factor contributing to crash risk. The five key elements of a Safe System work together to create multiple layers of protection and a shared responsibility for traffic safety:

1. **Safe Road Users:** Encouraging responsible behavior for all travelers.
2. **Safe Vehicles:** Promoting technologies and designs that enhance safety.
3. **Safe Speeds:** Managing speeds and road design to reduce crash severity.
4. **Safe Roads:** Designing infrastructure that minimizes risk and protects all users.
5. **Post Crash Care:** Ensuring rapid and effective emergency response to save lives.



Source: USDOT

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GUIDING VISION FOR THIS PLAN

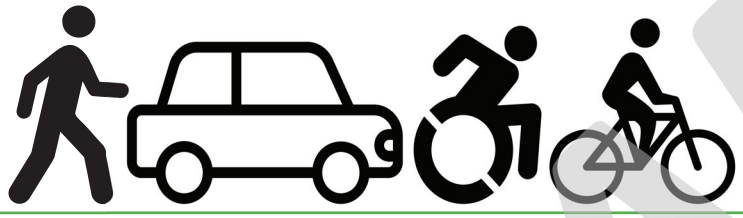
The Safe System approach for Collier MPO is guided by six core goals that were determined via Steering Committee collaboration, public input, and MPO leadership guidance:

1. **Promote a Culture of Safety** among the public and within agencies to prevent severe crashes by addressing the root causes of dangerous driving, including channels such as increased traffic education and enforcement.
2. **Design Safe Streets for Everyone** with improvements that reduce speeds and mitigate risky driving and support complete streets/multimodal design.
3. **Collaborate to *Integrate Vision Zero*** into multi-jurisdictional policies and processes, reducing severe crash risks.
4. **Expand Safe Mobility Options** by securing resources for accessible, affordable, multimodal, and connected networks for all ages and abilities.
5. **Enhance Data Sharing and Transparency** throughout the County and among the member entities.
6. **Increase and expand implementation pathways**, including funding support.



City of Naples

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DEVELOPING THIS ACTION PLAN

STEERING COMMITTEE
MPO BOARD, ADVISORY COMMITTTEES, AND TRIBAL NATIONS
& PUBLIC OUTREACH

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This plan represents the results of ongoing collaboration. Collier MPO was awarded a Fiscal Year 2022 Action Plan Grant Award via the U.S. Department of Transportation Safe Streets and Roads for All (SS4A) program and funded through the Bipartisan Infrastructure Law to develop this Comprehensive Safety Action Plan. Plan development began in late spring of 2024 with the establishment of the Safety Action Plan Steering Committee, initial crash data collection and analysis, and consultation with the MPO's Advisory Committees. Coordination with tribal nations and public outreach efforts were conducted to better understand the traffic safety experiences of those living in Collier County today. Stakeholders were engaged throughout the process to better understand the daily traffic safety concerns and opportunities that could not be understood through crash data analysis alone. Their insights helped shape this Safety Action Plan.

STEERING COMMITTEE

The Collier MPO Safety Action Plan Steering Committee is comprised of a wide range of perspectives, including representatives from FDOT, local governments and tribes, law enforcement, advisory groups, emergency responders, and community members engaged in or affected by traffic crashes.

Four Steering Committee Workshops took place during the development of the Action Plan. Participants analyzed crash data, identified community challenges and needs, and brainstormed strategies to address them. In addition, Steering Committee members reviewed all draft materials and provided feedback.

Steering Committee Member Affiliations:

- Florida Department of Transportation District 1
- Florida Department of Health
- Collier County Traffic Operations
- Collier County Transportation Management Services
- Collier County Emergency Management Services
- Collier County Sheriff's Office
- Collier County Public Schools
- Collier MPO Bicycle and Pedestrian Advisory Committee (BPAC)
- Collier MPO Citizens Advisory Committee (CAC)
- Collier County Congestion Management Committee (CMC)
- Collier County Community Traffic Safety Team (CTST)
- Collier County Community Redevelopment Agency
- Immokalee Community Redevelopment Agency
- Bayshore Gateway Triangle Community Redevelopment Agency
- City of Naples
- City of Marco Island
- Miccosukee Tribe
- Seminole Tribe
- Local Police Departments (City of Naples, City of Marco Island)
- Naples Pathway Coalition
- At Large Citizens

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MPO BOARD, ADVISORY COMMITTEES, AND TRIBAL NATIONS

Over the course of Plan development, the MPO met twice with three of the five Committees established to advise the MPO Board. Committee members are either citizen volunteers, jurisdictional staff, or agency representatives. The Plan in its development was also brought before the MPO Board twice. Further, consistent with the MPO's Public Participation Plan's Government-to-Government communications policy, four meetings (two with each tribe) were held with Seminole Tribe of Florida and Miccosukee Tribe representatives, one of which was held at the Seminole Tribe of Florida's Immokalee Reservation to present the Plan and solicit feedback, ensuring their unique perspectives and concerns were addressed.

These meetings were held at strategic times for Plan development, to facilitate feedback on the roadway safety conditions assessment and again to provide feedback on the Plan's recommended actions.

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Big Cypress Reserve

PUBLIC OUTREACH

Members of the public were invited and encouraged to participate in the development of the plan through an online survey and map and online workshops to provide input on their experiences with traffic safety, review the data, and provide direction on the goals of the plan.

ONLINE SURVEY AND INTERACTIVE MAP

On August 16, 2024, a survey and interactive map were sent out to capture the public's input on how to minimize roadway fatalities and make Collier County road systems safer for residents, workers, and visitors. Links to the survey and interactive map were posted on the Collier MPO website, sent out to the MPO's advisory committees and shared several times via the MPO's monthly newsletter. The survey gathered input on participants' travel habits, experiences with transportation safety, perceived risks, areas of concern, and preferred interventions. Additionally, the map tool invited participants to identify specific locations in the County where they felt unsafe. The platforms accepted new replies until November 30, 2024. The survey was published in both English and Spanish, and a total of 322 survey responses were received. The map tool received 34 pins identifying problem areas, and specific locations of concern were also included as part of the survey responses. In addition, constituent comments related to roadway safety for either this Action Plan or the Bicyclist and Pedestrian Master Plan, in concurrent development, were collected and reviewed.

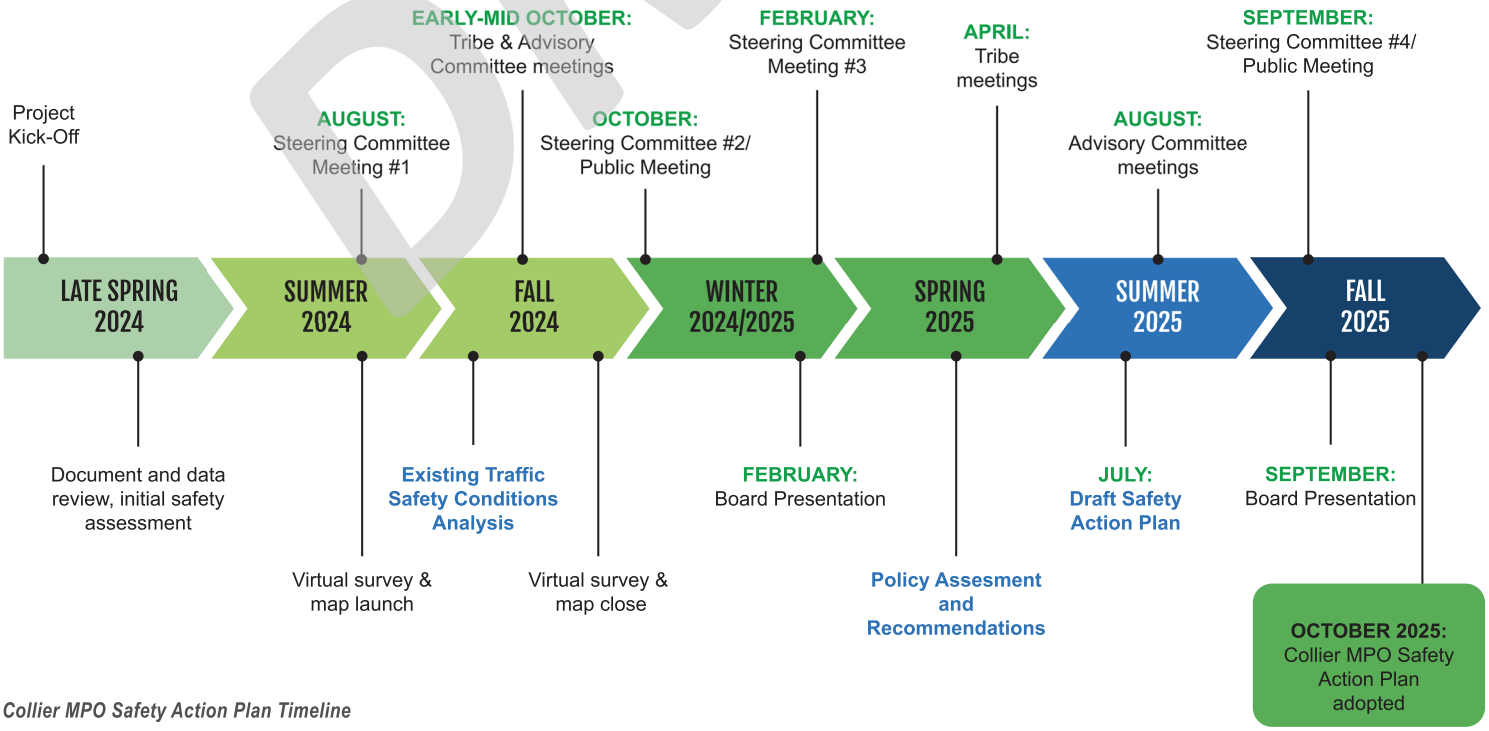
ONLINE WORKSHOPS

To ensure accessibility, two online open-house workshops were held after standard work hours during the Plan's development. These meetings coincided with the Steering Committee meetings 2 & 4, and invited both members of the public at large and the Steering Committee to engage in collaborative discussion.

Workshop Details

Workshop One: Conducted early in the plan development process in October 2024, the meeting included a presentation on the project purpose and summarized key points from the existing conditions safety data analysis. In an interactive platform, participants reviewed crash data, discussed traffic safety concerns, and brainstormed potential interventions and strategies. The meeting had 22 participants.

Workshop Two: Held in September 2025, the meeting presented an overview of the draft Safety Action Plan to the Steering Committee and the public, with the purpose of soliciting feedback on the plan's recommendations.



Collier MPO Safety Action Plan Timeline

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ASSESSMENT OF CURRENT POLICIES & PRACTICES

Policy and process change constitute one of eight action plan components required by the U.S. Department of Transportation's (USDOT) SS4A program. Aligning policies and processes with the Safe System approach and operationalizing the Safe System principles within standards, guidance, and plans are critical steps that the MPO can take to eliminate severe crashes.

The policy and process recommendations were comprised of four inputs, which included looking at existing Collier MPO plans and policies, surveying the Steering Committee, conducting deep dive interviews with key stakeholders, and reviewing peer Safety Action Plans and Vision Zero Initiatives in the state of Florida to identify common plan and best-practice policy recommendations across the state. Key takeaways are highlighted in this Plan, and a complete policy and process review is included in **Appendix C: Countermeasure and Policy Recommendations Memorandum.**



Policy and Process Recomendation Inputs

PEER SCAN

The Collier MPO reviewed relevant Vision Zero and SS4A Safety Action Plans from comparable Florida jurisdictions, including other MPOs, cities, and counties. The following jurisdictions' Safety Action Plans were reviewed: City of Gainesville, MetroPlan Orlando, Forward Pinellas, Sarasota County, City of Tampa, City of Orlando, and City of Deerfield. The peer review scan found that these agencies have developed a broad array of policies and processes to reduce fatal and severe crashes, generally focused on items that can be grouped across six focus areas: education and culture, design and engineering, data collection and management, engagement and public outreach, funding, and equity and inclusion.

- Within **education and culture**, jurisdictions are raising awareness of traffic safety issues, training fleet drivers in safe operations, collaborating with schools and public agencies to educate the general public about traffic safety, and promoting a culture of safety among municipal staff.
- **Design and engineering** strategies across the peers emphasize Safe System design, speed management, and expanding multimodal networks.
- In **data collection and management**, agencies are improving crash data accuracy and analysis by partnering with law enforcement and health departments. They are also using technology to better understand crash factors.
- **Engagement and public outreach** efforts involve establishing working groups, task forces, and interactive platforms to inform and involve the public.
- **Funding strategies** focus on aligning resources with safety goals by reprioritizing investments to focus on safety, supporting federal grant applications to fund safety projects, and exploring new revenue streams.
- **Geographic distribution of benefits** is being addressed through efforts to prioritize underserved communities, study crash impacts on vulnerable groups, and ensure safety improvements are implemented across the region.

Within these overall focus areas, all of the plans included a strategy on design and engineering changes that targeted high-crash locations and vulnerable roadway users and educational campaigns that seek to raise awareness of roadway safety across all user groups.

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EXISTING PLAN REVIEW

A review of existing plans within the Collier MPO, including the Local Road Safety Plan (LRSP), the 2045 Long Range Transportation Plan (LRTP), the Transportation Improvement Program (TIP), the Unified Planning Work Program (UPWP), Congestion Management Process (CMP), and the 2019 Bicycle and Pedestrian Master Plan (BPMP), identified how traffic safety goals and objectives have been considered in previous efforts. Common safety goals in these plans include:

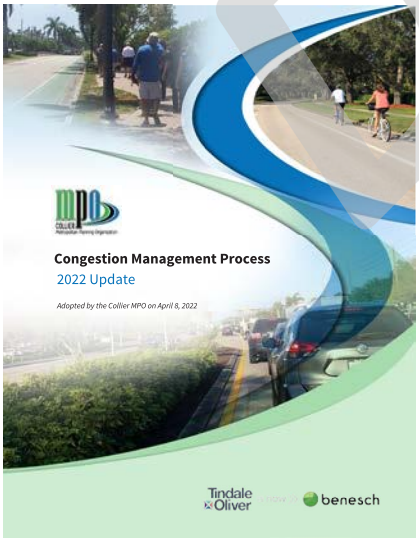
- Increased safety of the transportation system for motorized and non-motorized users;
- Safe, connected, efficient, and convenient mobility options including transit;
- Improved accessibility for people walking and biking through investments in infrastructure;
- Equitable community input and inclusive transportation network outcomes.

The Safety Action Plan is grounded in this context and builds upon existing work.

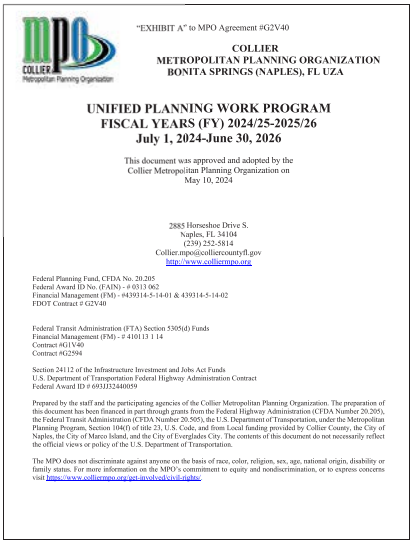












Previous Plans and Programs that inform the Safety Action Plan

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STEERING COMMITTEE SURVEY

The Collier MPO distributed a survey to the Steering Committee in order assess the policies and processes impacting the delivery of traffic safety projects. The survey results revealed key barriers, opportunities, and gaps in efforts to improve street safety. A major barrier cited was the lack of resources, including funding and staffing, for enforcement and data collection which hampers traffic calming initiatives. Many agencies also reported rising crash rates post-2020, consistent with the data analyzed in this Plan. Opportunities were also mentioned in survey responses including the widespread usage of tools like Florida's Signal Four Analytics for crash data monitoring, an interest in policy reform such as automated traffic enforcement, and effective collaboration with tribal and community partners. Gaps persist in the form of policies around automated enforcement and multimodal infrastructure, lack of legislative support for change in general, confusion over enforcement (particularly with emerging modes like e-bikes), and a lack of clarity around Vision Zero goals in some jurisdictions, highlighting a need for clear direction.

2025 E-Bike Ordinance

On April 22, 2025, while this Safety Action Plan was in development, the Collier County Board of Commissioners adopted a new ordinance regulating e-bike use. The ordinance specifies that:

- E-bikes of any class must not exceed 15 mph when operated on sidewalks.
- Individuals under 16 are prohibited from riding Class 3 e-bikes.
- All e-bike classes are permitted on sidewalks; however, riders over 16 using a Class 3 e-bike must use bike lanes when available and are not allowed on sidewalks. They must also adhere to the 15 mph speed limit.

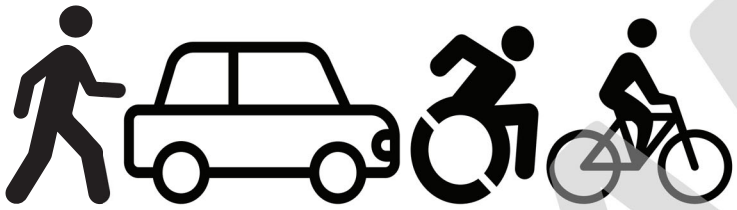
STAKEHOLDER INTERVIEWS

Interviews were conducted with key staff at the MPO and the MPO's member entities. The interview and survey questions sought further information regarding existing policies within the MPO area and suggested areas of improvement from the informed perspective of staff and key stakeholders. The intention of this review was to fully understand current policies and roadway safety practices within the MPO.

The interviews highlighted several key barriers, opportunities, and gaps affecting safety efforts. Barriers included limited funding, especially in smaller or seasonal communities like Marco Island, as well as staffing shortages that hinder education, enforcement, and emergency response. E-bike usage emerged as a major concern, with unclear and conflicting understanding of regulations creating enforcement challenges. In terms of opportunities, stakeholders expressed strong interest in expanding driver education programs, especially through school partnerships and social media, and scaling up promising outreach programs. Data-driven improvements and infrastructure upgrades, such as the installation of Rectangular Rapid Flashing Beacons (RRFBs), redesigned intersections, and exploring advanced technologies such as signal synchronization and ITS were also noted. However, gaps remain in adult-focused safety education, near-miss and crash data collection, regulatory clarity for emerging transportation modes, and emergency response coordination, particularly in areas that are lacking trauma centers.



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ENGAGEMENT AND COLLABORATION RESULTS

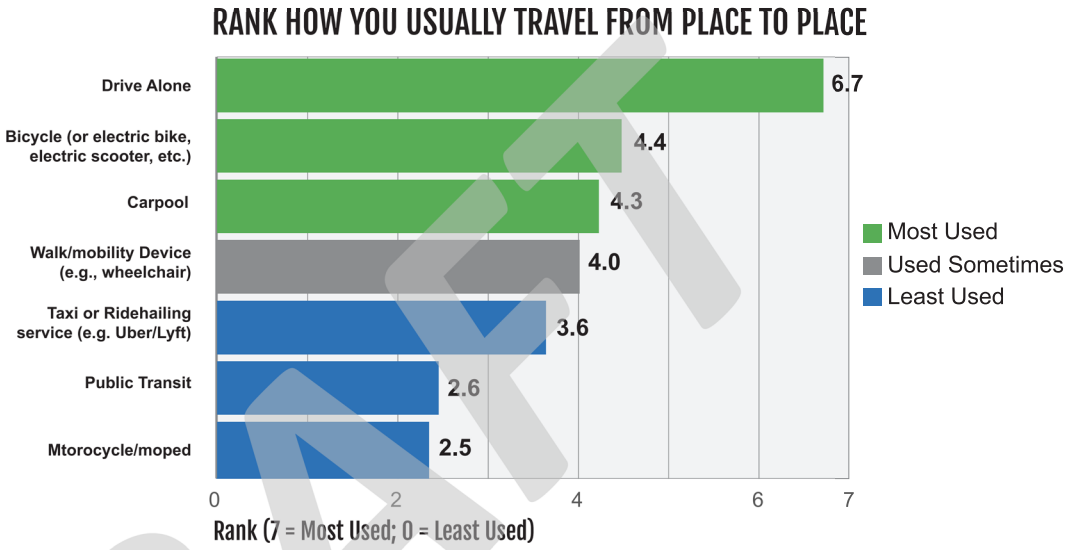
PUBLIC AND STAKEHOLDER FEEDBACK

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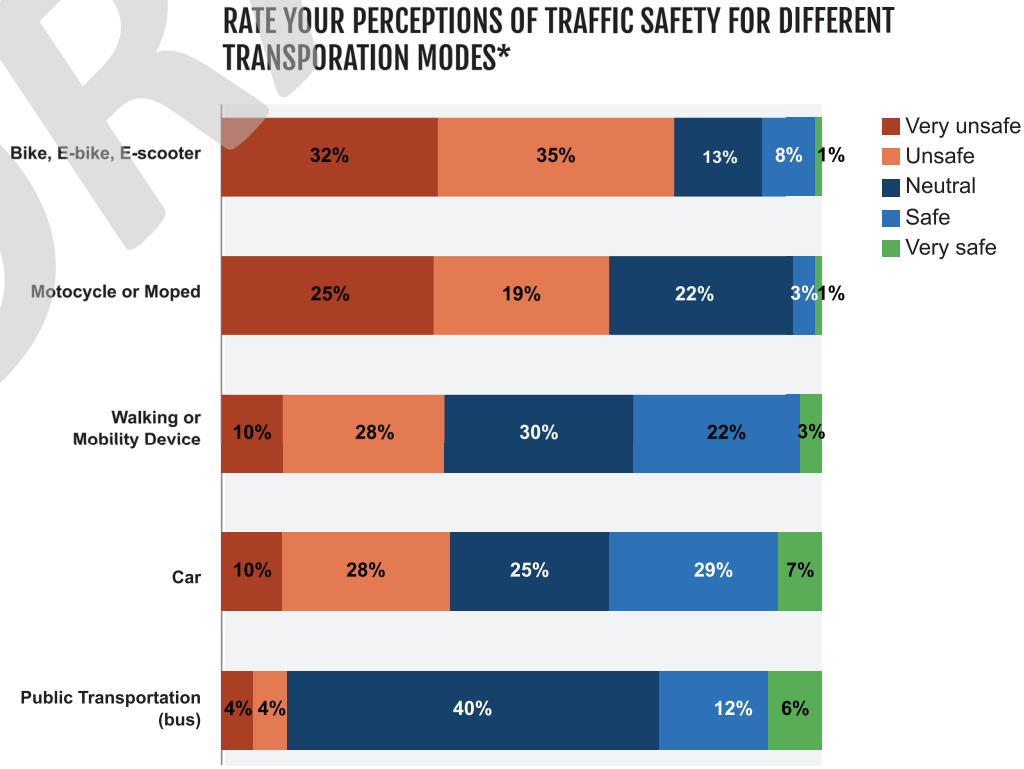
The feedback from the stakeholder meetings and public outreach highlighted several recurring themes that informed the goals and recommendations included in this Plan. The complete public survey, responses, and other feedback, are included in **Appendix A: Engagement Summary**.

PERCEPTIONS OF TRAFFIC SAFETY IN COLLIER COUNTY

Many residents of Collier County prefer driving alone to any other mode of transportation. The modes of transportation that are least utilized in Collier County among survey respondents are public transportation and motorcycles or mopeds.



When asked how safe they feel when using different modes of transportation in Collier County, rating the modes on a scale of "Very Safe" to being "Very Unsafe," survey respondents felt most unsafe using bicycles, e-bikes, and e-scooters as modes of transportation.



*Percentages do not sum to 100% due to non-replies

Source: Collier MPO Safety Action Plan Survey

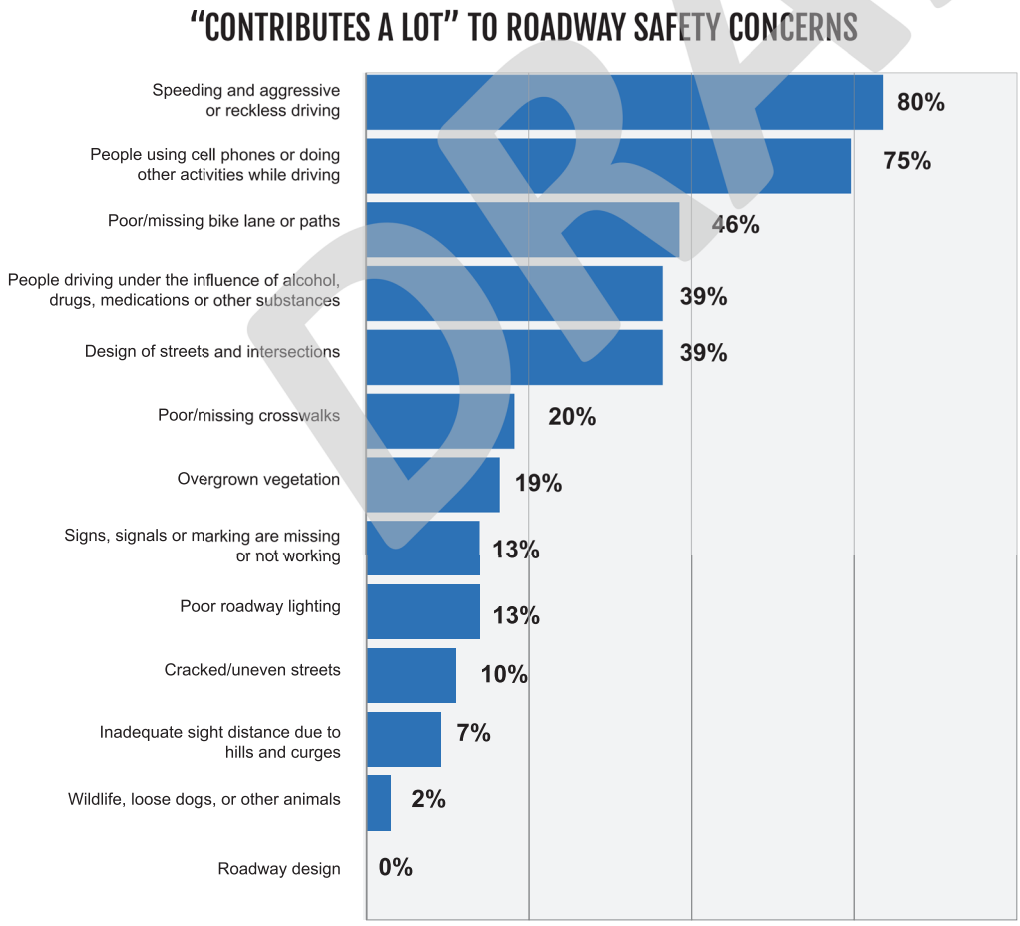
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MOST FREQUENTLY NOTED CONCERNS

Respondents shared their safety concerns, experiences, and insights related to how challenges and opportunities getting around Collier County. The most frequently noted concerns and ideas included:

- **Travel Changes Due to Safety Concerns:** Residents often change routes or travel times to avoid heavy traffic, reckless driving, and unsafe conditions—especially on Immokalee Road, Collier Boulevard, and Tamiami Trail. Cyclists and pedestrians avoid streets lacking sidewalks or bike lanes, citing aggressive and distracted drivers.
- **Pedestrian and Cyclist Safety:** Roads like Rattlesnake Hammock Road, Collier Boulevard, and Pine Ridge Road lack safe facilities for non-drivers. Right-turn lanes and ignored pedestrian priority in crosswalks increase risk. Poor lighting and limited crossings make parts of Tamiami Trail particularly dangerous.
- **Road Design Issues:** Faded signs and unsafe intersections, such as Collier Boulevard at Bald Eagle Boulevard, highlight the need for infrastructure upgrades.
- **Driver Behavior and Enforcement:** Speeding, red-light running, texting while driving, and aggressive behavior are common, especially on Collier Boulevard, I-75, and Tamiami Trail. Residents support stronger enforcement and more police presence.
- **Traffic Flow and Congestion:** Key intersections like Collier Boulevard at 25th Avenue Southwest and Golden Gate Parkway suffer from backups, short turn lanes, and poorly managed merges, especially during peak hours.

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Source: Collier MPO Safety Action Plan Survey

"THIS PLAN NEEDS TO CONSIDER SAFETY RELATED TO NEW POPULATION GROWTH AND DEVELOPMENT."

Any changes to roadways in the Everglades should consider efforts to *improve the hydrology of the Everglades*

LOWER ALL SPEED LIMITS BY 5 MPH and install automated enforcement.

"Give peds and bikes more space, make cell phone use illegal while driving, lower all speed limits by 5mph to 10mph, enforce traffic law."

"...Law enforcement [should] be visible and enforce the laws.. People know they can get away with it because law enforcement will do nothing."

Less flashing yellow lights for left hand turns at intersections where the distance is too great (like Airport Rd and Corporate Flight Drive.)

"Properly designed roadways that accommodate a bike lane of travel."

"Better bike lanes and crosswalks. More signage."

"Enforce left lane laws regarding to keep right except for passing."

HANDS FREE DRIVING, STOP DISTRACTIONS.

Electric bikes should not be allowed on sidewalks, too dangerous for walkers

"Something to be done about red light runners and more driver education (ex who has right of way, etc). Also, bikes need to be more respectful of driving vehicles."

"BUSHES AT LEFT HAND CROSS LANES NEED TO BE MOVED BACK or removed to allow for better visibility of oncoming traffic."

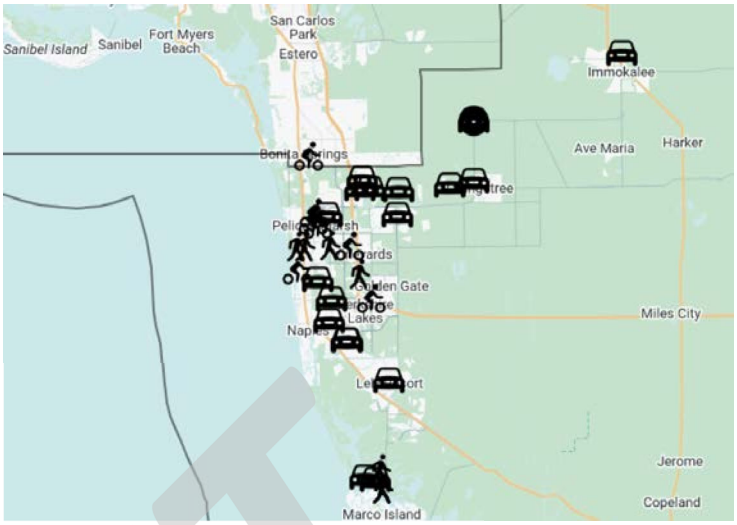
Source: Collier MPO Safety Action Plan Survey

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LOCATIONS OF CONCERN

Through the survey, interactive map, and stakeholder meetings, Collier MPO identified key roads of concern across the County. Some of the roadways most frequently cited include:

- **Immokalee Road:** Immokalee Road consistently emerges as one of the most problematic roads. Issues include speeding, aggressive driving, lane weaving, and running red lights. Intersections such as Immokalee Road and Logan Boulevard, Collier Boulevard, and Wilson Boulevard are considered particularly hazardous.
- **US Route 41 / Tamiami Trail:** US Route 41 / Tamiami Trail is seen as dangerous and congested, with frequent speeding, red-light running, and aggressive driving. Many avoid it during peak hours. Pedestrians feel unsafe crossing wide intersections, while cyclists cite a lack of protected lanes, narrow shoulders, and roadside debris—especially on the East Trail. Respondents also raise concerns about unsafe turns, distracted driving, and weak enforcement, calling for safer crossings, better bike infrastructure, and stronger traffic monitoring.
- **Collier Boulevard:** Collier Boulevard is seen as unsafe and congested, with many often avoiding it due to speeding, red-light running, and aggressive driving. Bicyclists and pedestrians cite poor infrastructure and lack of protection. Many call for better enforcement, safer bike lanes, and improved road maintenance.
- **Pine Ridge Road:** Pine Ridge Road is viewed as one of the most stressful roads in the area, with many citing frequent speeding, aggressive driving, and distracted drivers. Many avoid it entirely, noting unsafe conditions created by large trucks, high speeds, and difficult turns across multiple lanes. Calls for stronger enforcement, more visible law enforcement, and improved bike infrastructure—such as protected and wider bike lanes—were common. Overall, Pine Ridge is seen as congested, chaotic, and in need of safety upgrades.
- **Golden Gate Parkway:** Concerns include frequent red-light running, speeding, particularly by large trucks, and unsafe turning movements. Residents request improved bike and pedestrian infrastructure, including protected lanes and crossings, and some suggest an overpass to connect parks and greenways for safer access.



Collier County residents were invited to identify areas of concern using an interactive map (above). Additional input from survey comments, emails, and public meetings helped highlight specific roads and locations with traffic safety issues.



US Route 41 / Tamiami Trail



Golden Gate Parkway

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SUPPORTED INTERVENTIONS

During the Plan development process, the Collier MPO surveyed residents and engaged stakeholders to identify preferred traffic safety interventions. Many respondents strongly support stricter enforcement—especially against speeding, red-light running, and distracted driving—along with increased use of technology like red-light cameras and higher fines. They also prioritize safer infrastructure, including separated bike lanes, wider sidewalks, visible crosswalks, and pedestrian-friendly signals. Other suggestions include lower speed limits in key areas, improved rural roads, better signage, and expanded transit options. Public education, stronger penalties, and more police presence were also seen as critical.

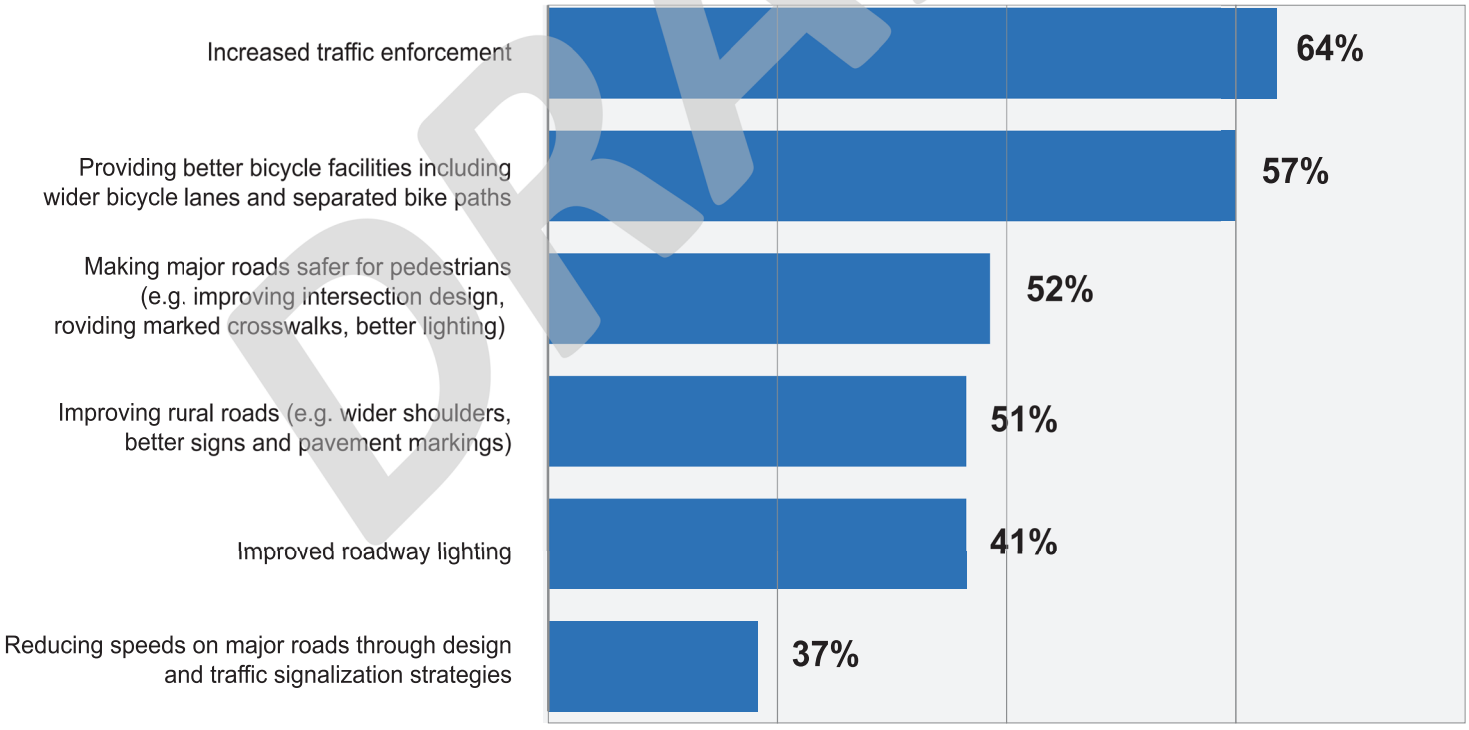
Top Five Preferred Traffic Safety Measures

1. Increasing safety enforcement
2. Providing better bicycle facilities including wider bicycle lanes and separated bike paths
3. Making major roads safer for pedestrians
4. Improving rural roads
5. Improving roadway lighting

These supported measures echoed feedback heard in both Steering Committee, the virtual public workshop, and Advisory Committee discussions.

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"VERY SUPPORTIVE" OF INTERVENTION FOR INCREASING TRAFFIC SAFETY



Source: Collier MPO Safety Action Plan Survey

"I used to feel safe on Livingston [Road] but not anymore!"

"Immokalee Road needs more bike lanes west of 75"

"Collier Blvd northbound separate bike path has been in disrepair and is not user friendly (have to cross at intersections or dismount the bike many times)"

"THERE ARE TOO MANY CARS NOW- these roads need to be 45 max with speeders shown no leniency.

WE WITNESS AGGRESSIVE AND UNSAFE DRIVING DAILY [on Immokalee Road]."

"Livingston Rd speeds are too fast! The problem is the infrastructure has become inadequate for the increasing volume of vehicles."

"I'VE BEEN TAKING VANDERBILT BECAUSE I AM FEARFUL OF IMMOKALEE ROAD."

"From a blind resident's perspective: walking in Naples feels unsafe. Sidewalks end abruptly, crossings are too short, and right-on-red turns make crossing unsafe—sometimes Uber is the only safe option."

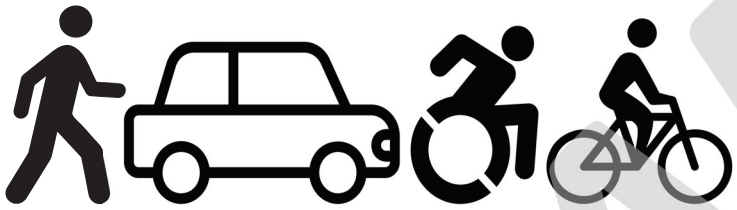
"Drivers do not stop or even notice peds/bikes [at Pine Ridge Road & Goodlette Frank Road]. Many similar right- turn lanes are horrible for pedestrians."

"Collier Blvd speeding, red light running and aggressive driving"

"US-41 is seeing more cyclists, but the roadway is unsafe for these users"

Source: Collier MPO Safety Action Plan Survey

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SAFETY ANALYSIS

FATAL AND SEVERE CRASH TRENDS & FATAL AND SEVERE CRASH CHARACTERISTICS

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Traffic crashes remain a leading cause of death in the United States. According to the National Highway Traffic Safety Administration (NHTSA), 42,514 people were killed in traffic crashes on U.S. roadways in 2022—equivalent to one life lost every 12 minutes. In Florida alone, 3,530 fatalities occurred that year. Between 2013 and 2022, traffic deaths in Florida have surged by 47%, outpacing the national increase of 29% and following a similar upward trend.[1]

Among the most vulnerable road users are motorcyclists, bicyclists, and pedestrians, who represent 19%, 22%, and 6%, respectively, of traffic fatalities in Florida, despite representing a much smaller share of total roadway users. In Collier County, 82% of all commute trips for residents are made by vehicle.[2]

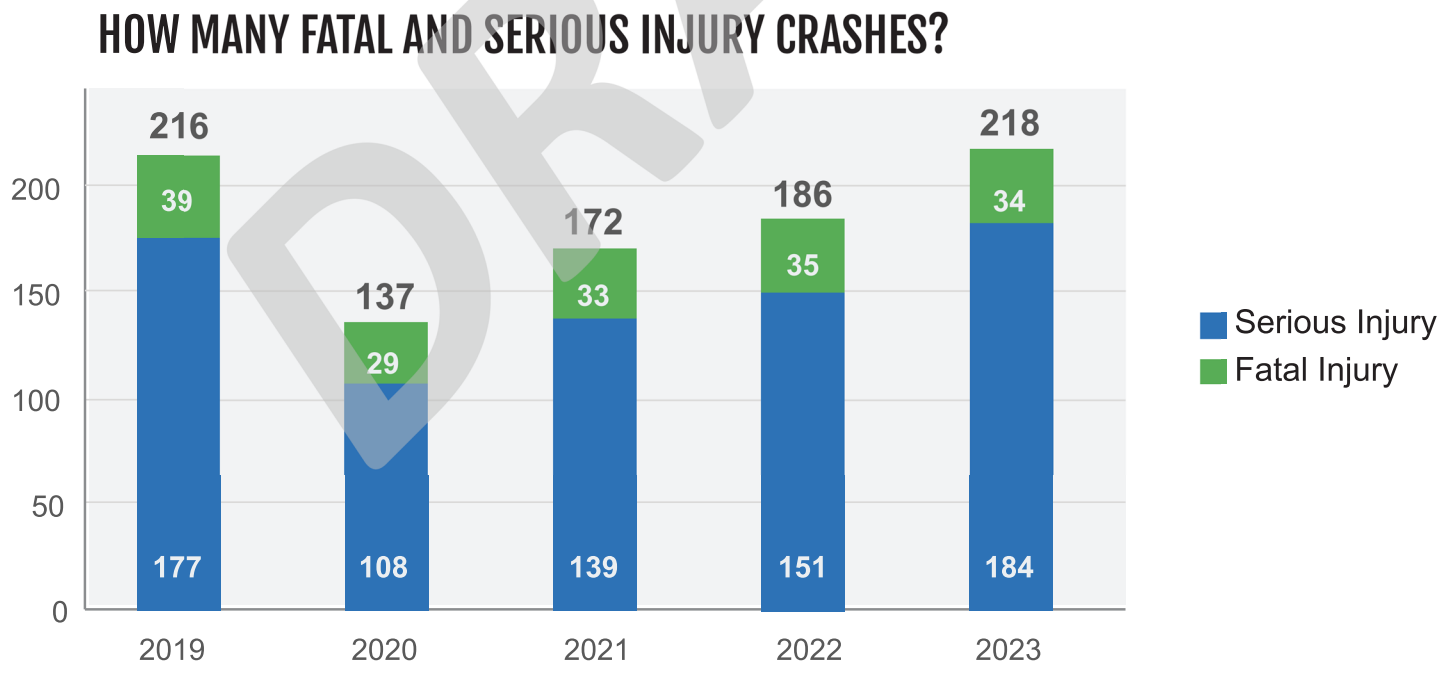
FATAL AND SEVERE CRASH TRENDS

For this Safety Action Plan, Collier MPO analyzed fatal and severe injury crashes (also known as KSI crashes) from 2019 to 2023, the latest full 5-years of data at the time of this publication. This analysis was used to understand where crashes occur and other crash characteristics to be addressed by this Plan.

The study area for this analysis included all crashes within Collier County, excluding Interstate-75. The follow pages highlight key crash trends, while a more detailed analysis can be found in **Appendix B: Existing Conditions & Safety Analysis Memorandum**.

OVERALL CRASHES

Between 2019 and 2023, there were a reported 929 fatal or serious injury (KSI) crashes, averaging about 186 per year (152 serious injury crashes and 34 fatal crashes annually). Over the five-year period, these crashes resulted in 184 fatalities and 986 serious injuries, or an average of 36 deaths and 196 serious injuries per year, with some crashes involving multiple fatalities or injuries. The number of KSI crashes dipped slightly in 2020, in contrast to nationwide trends, but have since surpassed 2019 levels, highlighting a troubling increase in traffic incidents and the urgent need for improved safety measures.



Source: Signal Four Analytics, 2019 to 2023, crashes within Collier County excluding I-75

1 NHTSA DOT Crash Trends
2 U.S. Census Bureau, 2019-2023 American Community Survey 5-Year Estimates

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CRASHES BY MODE

Motor vehicle crashes account for most of all crashes and cause the most serious injuries and fatalities. However, non-motor vehicle crashes tend to be more severe when they occur.

For example, pedestrians and cyclists account for only 4% of all crashes but represent 23% of all KSI crashes. Motorcyclists are involved in just 1% of all crashes but makeup 14% of KSI crashes.

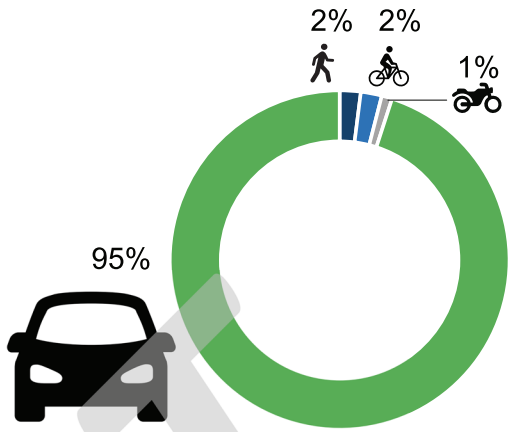
1 in 10
pedestrian crashes results in a fatality or serious injury.

1 in 9
bicyclist crashes results in a fatality or serious injury.

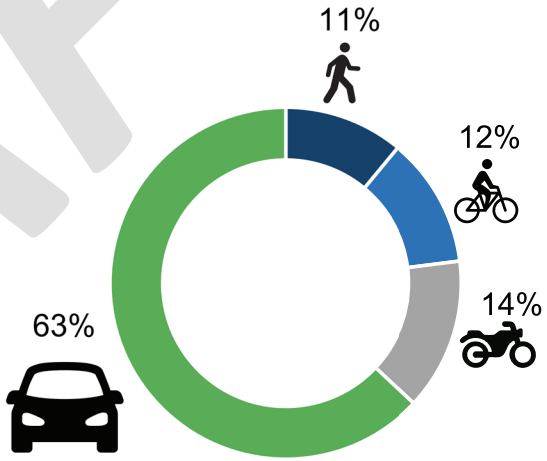
1 in 4
motorcyclist crashes results in a fatality or serious injury.

1 in 95
motor vehicle crashes results in a fatality or serious injury.

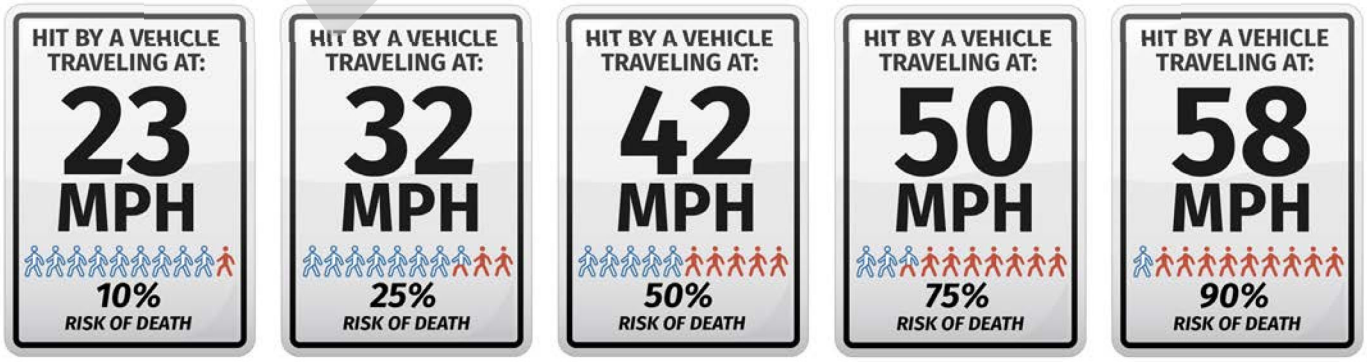
SHARE OF TOTAL CRASHES



SHARE OF KSI CRASHES BY MODE



Source: Signal Four Analytics, 2019 to 2023, crashes within Collier County excluding I-75



Higher vehicle speeds greatly increase the risk of severe injury or death for pedestrians in a crash.

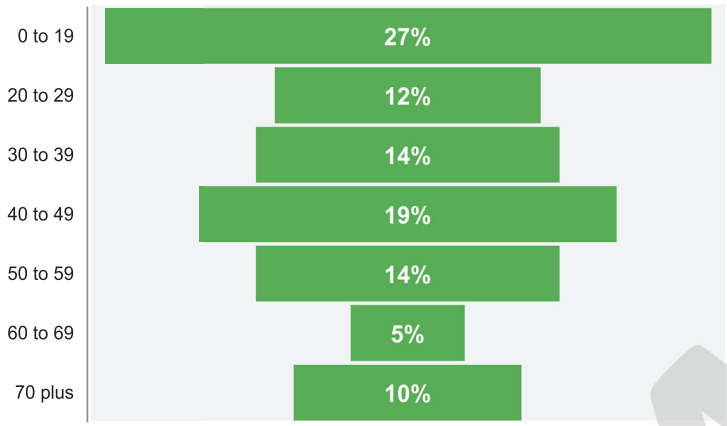
Source: USDOT

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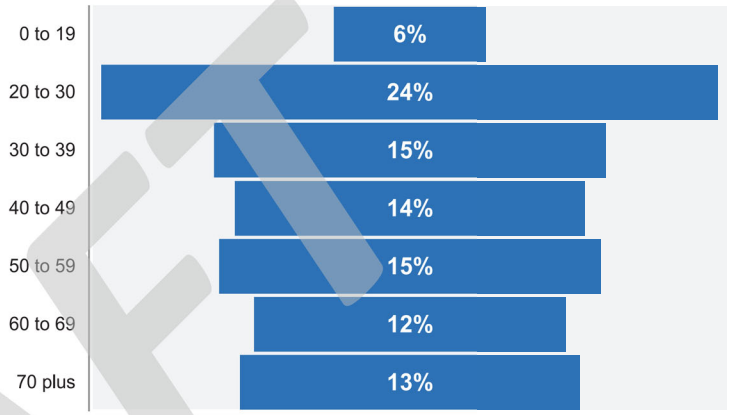
AGES IMPACTED

In Collier County, drivers aged 20 to 30 account for 24% of KSI crashes, despite making up just 9% of the population, highlighting the need for improved driver education among the youngest drivers. Additionally, children and teens (0-19) are disproportionately involved in pedestrian and bicyclist KSI crashes, emphasizing their vulnerability on the roads.

PEDESTRIAN VICTIM AGE FOR KSI CRASHES



DRIVER VICTIM AGE FOR KSI CRASHES

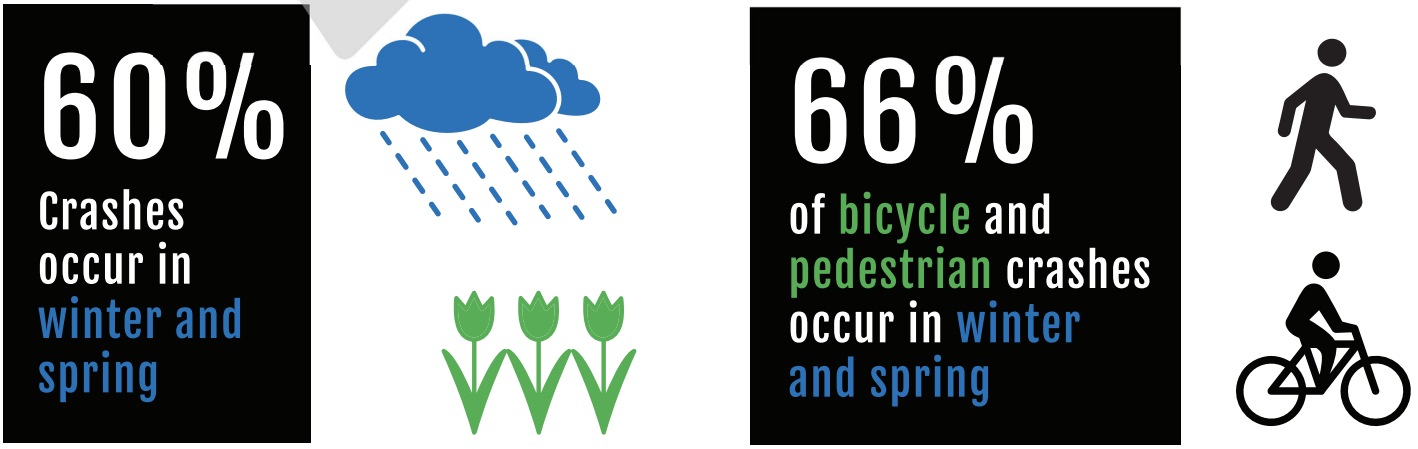


Source: Signal Four Analytics, 2019 to 2023, crashes within Collier County excluding I-75

FATAL AND SEVERE CRASH CHARACTERISTICS

WHEN

More crashes occur in winter and spring, accounting for nearly 60% of all KSI crashes. Concurrently, over half of pedestrian and bicycle KSI crashes, 66%, occur in winter and spring. This contrasts national trends but aligns with the region's annual population fluctuations during these periods.



Source: Signal Four Analytics, 2019 to 2023, crashes within Collier County excluding I-75

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HOW

While rear end, sideswipe, and other / non-collision crashes (including events like fire or immersion that don't involve another person or vehicle) are the most common motor vehicle crash types across all crashes, the most severe (KSI) crash types are roll-over, head-on, left-turn, and ran-off roadway / fixed object crashes (where a motor vehicle strikes a parked car, tree, or other non-moving object).

Most Common Crash Types
(All Crashes)



34%
Rear-End Crashes

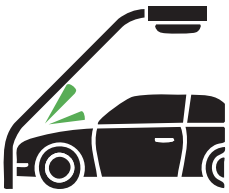


27%
Other/Non-Collision Crashes



12%
Sideswipe Crashes

Most Common Crash Types
(KSI Crashes)



19%
Ran-off Roadway/ Fixed Object Crashes



17%
Left-turn Crashes



6%
Head-on Crashes



5%
Roll-over Crashes

Source: Signal Four Analytics, 2019 to 2023, crashes within Collier County excluding I-75

WHERE

Crash risk was assessed across both urban and rural roadway types by comparing how frequently crashes occur relative to average rates. Roadway types where crashes occur more often than the countywide average are considered higher risk.

On urban roads, segments with 1 or 2 lanes consistently show low crash risk, regardless of Average Annual Daily Traffic (AADT). Overall, crash risk generally increases with both the number of lanes and daily traffic volume.

On rural roadways, risk also rises with the number of lanes, even though these segments typically carry much lower traffic volumes.

The graphic to the right illustrates how crash risk varies across Collier County based on lane count, roadway context (urban or rural), and average daily vehicle volume.

KSI CRASH RISK

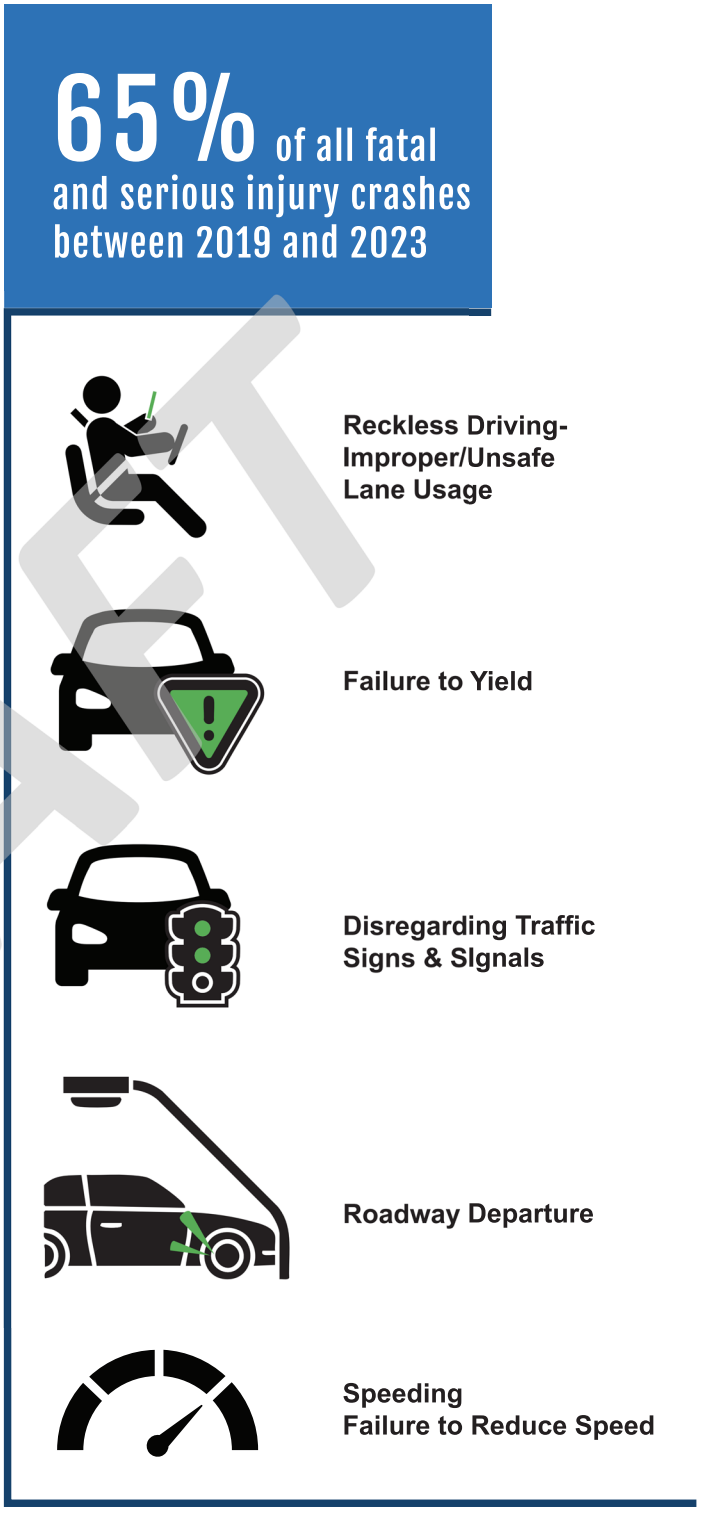
	3-5 lanes		6+ lanes	
	Rural Roads	Urban Roads	Rural Roads	Urban Roads
>25,000 Daily Vehicles	NA	**1.3 X average risk**	NA	**1.4 X average risk**
< 25,000 Daily Vehicles	1.4X average risk	Less than average risk	2.5 X average risk	**1.3 X average risk**
	More Lanes = More Risk			

Source: Signal Four Analytics, 2019 to 2023, crashes within Collier County excluding I-75

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CONTRIBUTING FACTORS

Based on the reported crash data, over half (65%) of all fatal and severe injury crashes are attributed to five main causes: failure to yield, roadway departure, reckless driving, disregarding traffic signals, and speeding. Reckless driving (24%), failure to yield (18%), and roadway departure (12%) account for the largest proportions of these contributing factors.



Source: Signal Four Analytics, 2019 to 2023, crashes within Collier County excluding I-75

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TRAFFIC CRASHES & UNDERSERVED COMMUNITIES IN COLLIER COUNTY

Studies show that underserved communities, including low-income communities and communities with limited resource availability, face higher injury risks due to lack of infrastructure investment and high rates of walking, bicycling, and transit use. The USDOT has identified that people living in the 40% of counties with the highest poverty rate in 2019 had 35% more fatalities than the national average per capita.[1]

The USDOT, FDOT, and Collier MPO are committed to creating a transportation network that serves all users. Achieving zero traffic fatalities necessitates a dedicated effort to ensure investment in the safety needs of underserved communities in preventing roadway fatalities and injuries.

To effectively address crash factors on the County's roads, it's essential to identify the populations that the Safety Action Plan will serve and determine project priorities. Areas of Persistent Poverty (APP), as defined by USDOT, are geographic areas that have experienced long-term economic distress. This designation includes any census tract with a poverty rate of at least 20 percent as measured by the 2014 – 2018 5-year data series available from the American Community Survey (ACS) of the Bureau of the Census. Countywide, these areas include 21% of the population.[2] Additionally, these areas contain 32% of the county's roadways, but account for 37% of non-interstate KSI crashes that occurred between 2019 and 2023. **This indicates a disproportionate amount of traffic safety risk to these areas.**

The map on the next page shows KSI crash density in relation to these demographic factors.

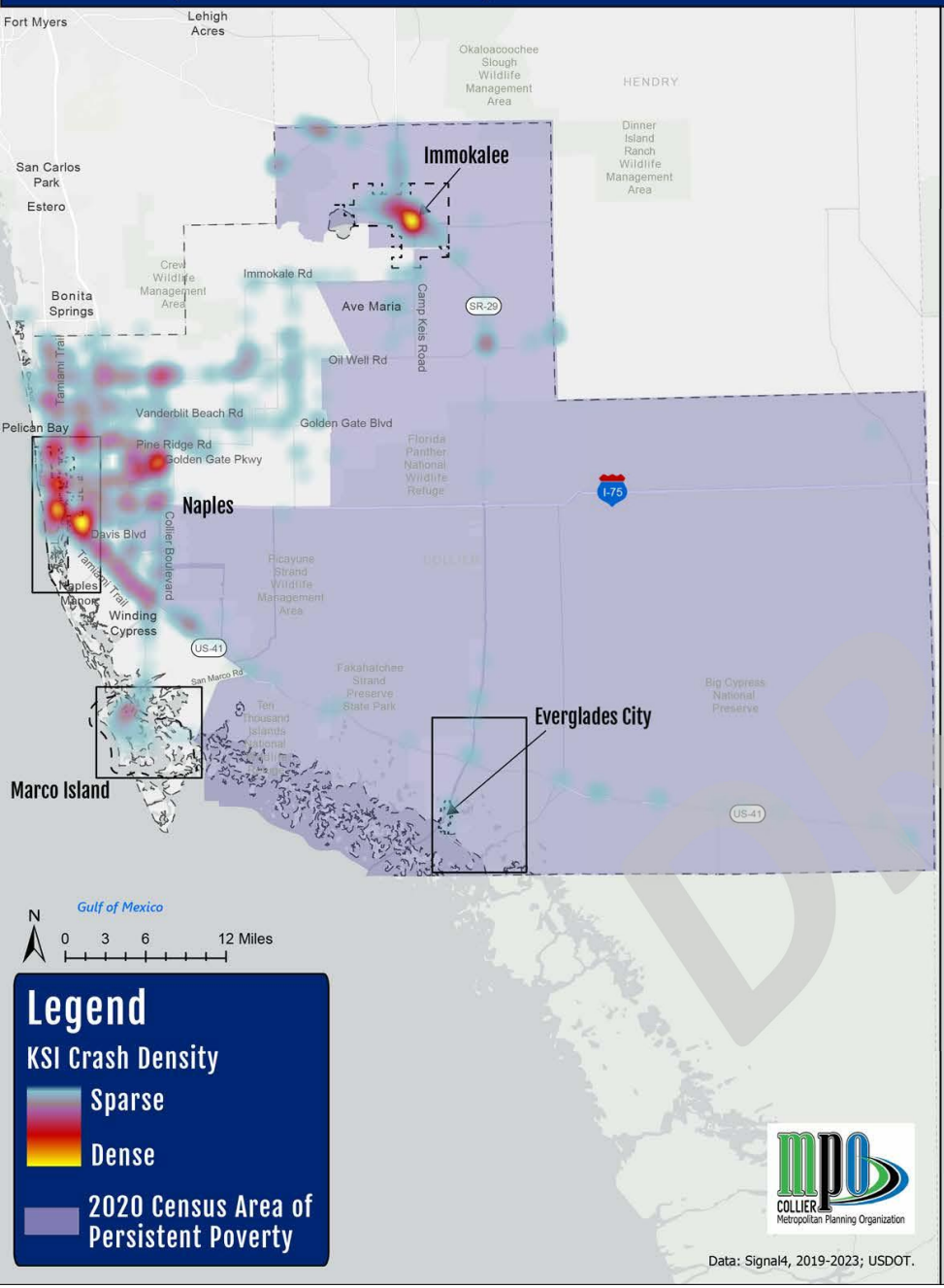
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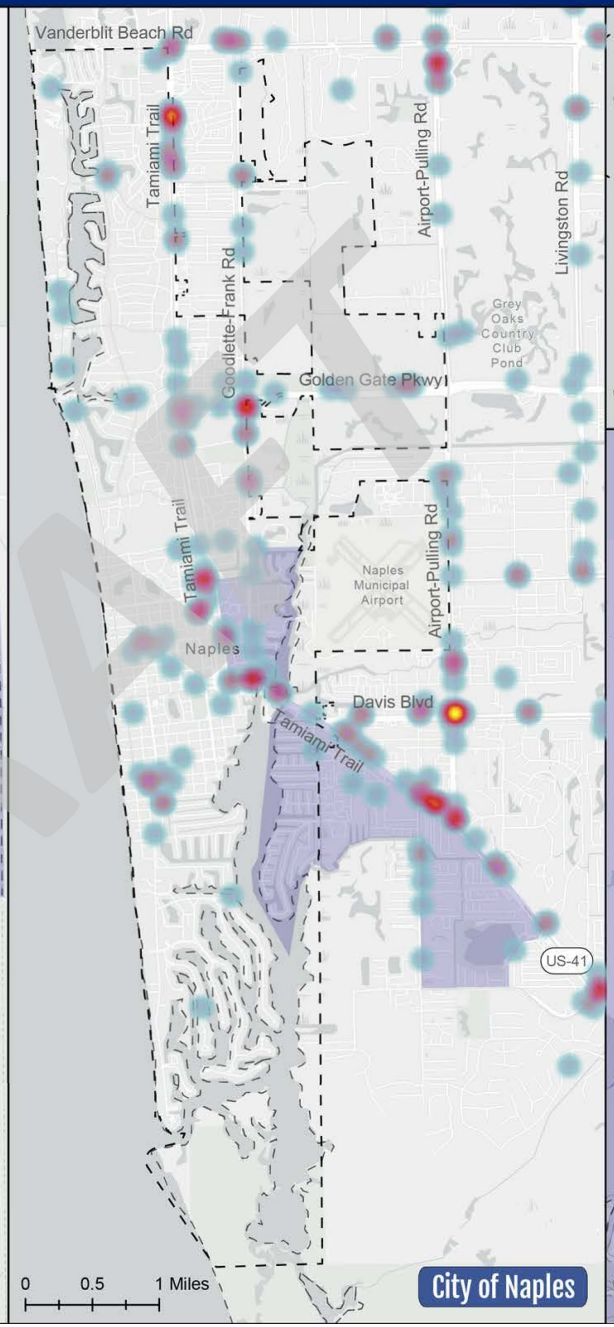
1 United States Department of Transportation, 2022. National Roadway Safety Strategy.
2 Based on 2020 population data from the U.S. Census.

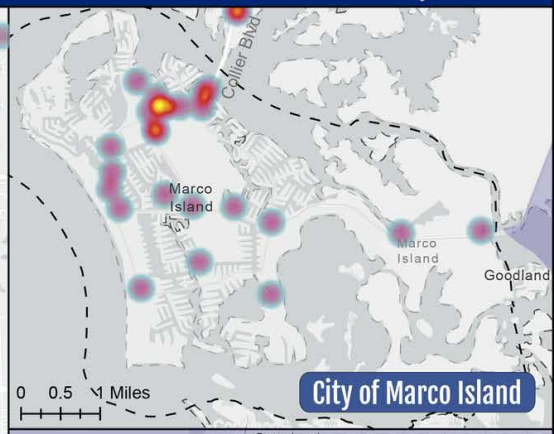


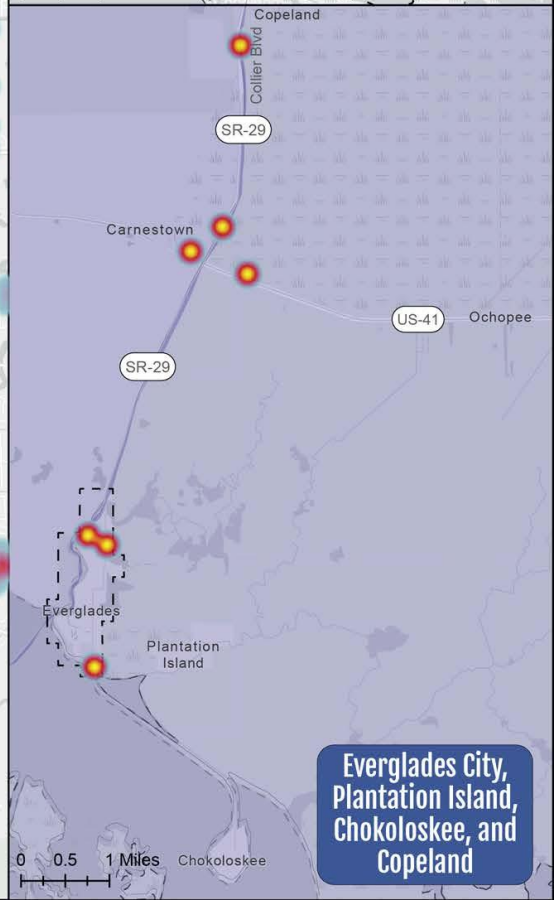
KSI Crash Density and Areas of Persistent Poverty

Collier MPO SS4A Safety Action Plan

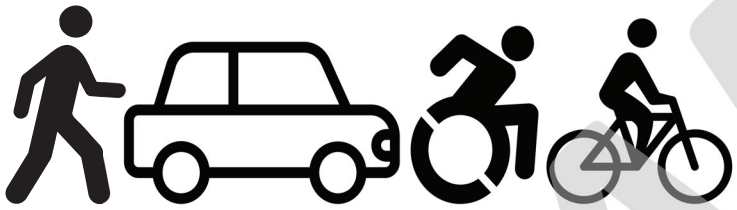








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HIGH INJURY NETWORK

ALL-MODES HIN
& BICYCLE AND PEDESTRIAN HIN

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The most serious crashes are concentrated along certain corridors and intersections known as a High Injury Network (HIN). The HIN is developed through a data-driven process that analyzes crash data to pinpoint locations with high rates of severe and fatal crashes and characteristics that contribute to risk. The HIN is a key part of a Safety Action Plan that helps identify where to focus safety improvements, providing a prioritized road map for tackling improvements. It provides decision-makers with clear, quantitative insights into the locations that would benefit most from targeted safety countermeasures.

ANALYSIS APPROACH

Because of the distinct types of crashes and related safety countermeasures at intersections and street segments, the methodology to determine the HIN evaluated both intersections and street segments across Collier County separately.

The HIN development process included three steps: 1) defining candidate locations, 2) crash assignment, and 3) location evaluation criteria and scoring. These steps are further defined in the text below. Separate HIN analyses were done for urban and rural street segments. However, because there are fewer rural intersections, just one countywide analysis was done for intersections. To better understand crash risks for people walking or biking, a separate HIN was also created to identify the intersections and segments with the highest number of serious or deadly crashes involving pedestrians and bicyclists.

The full HIN methodology and results are provided in more detail in **Appendix B: Existing Conditions & Safety Analysis Memorandum**.

DEFINING CANDIDATE LOCATIONS

Candidate locations include all non-Interstate roadways found in the FDOT GIS Data Portal. Because the HIN is a tool to identify high-impact locations for safety improvements, local street networks are omitted from this analysis. Interstates have been excluded from the high injury analysis due to differences in jurisdiction, traffic volumes, and the scope of countermeasures and strategies.

CRASH ASSIGNMENT

To analyze the crash data spatially, the locations of KSI crashes were assigned to intersections or segments: intersection crashes were defined to include crashes within 150 feet of the intersection, all other crashes were assigned as segment crashes.

LOCATION EVALUATION CRITERIA AND SCORING

To identify where serious crashes have happened and are most likely to happen, each intersection and street segment was evaluated using three key criteria. These criteria were normalized against segment length. Each one gives important information about safety risk, and all three were weighted equally when scoring:

1. **Severe Crash Risk Score:** This score is based on the number of crashes that caused a death or serious injury between 2019 and 2023 in Collier County. Locations with more of these crashes received higher scores.

2. **Facility Risk Score:** This measures risk based on the physical features of the roadway, such as the number of lanes, traffic volume (AADT), and other design elements. It looks at how often crashes happen on roads with similar features and gives higher scores to places that have conditions linked to higher crash rates.

3. **Relative Risk Score:** This compares the number of severe crashes at each location to the average number of crashes at similar types of intersections or street segments. If a place performs worse than similar locations, it gets a higher score.

The final score for each location is the sum of these three factors, giving a total score between 0 and 3. Intersections and segments with the highest combined scores are included in the High-Injury Network to help guide safety improvements.

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City of Naples

ALL-MODES HIGH INJURY NETWORK

Based on the methodology described above, top-ranked intersections and segments were identified for inclusion in the All-Modes HIN for intersections, urban segments and rural segments.

Two tiers of priority locations were identified for each of these high injury networks. The top 15% of scores are identified as the Tier I High Injury Network and the next 15% are identified as the Tier II High Injury Network.

The All-Modes HIN captures a substantial portion of all KSI crashes within Collier County in just a small portion of roadways and intersections.

The All-Modes HIN includes:

- 463 KSI crashes
- 56 miles of urban roadways
- 49.1 miles of rural roadways
- 80 intersections, equating to (4.5 miles of roadway)

THE FULL HIN (TIER I & II): CAPTURES 50% OF KSI CRASHES ON JUST 4% OF ROADWAY MILES.

TIER I: CAPTURES 31% OF KSI CRASHES ON JUST 1.6% OF ROADWAY MILES.

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Top 10* Locations: Intersections

RANK	LOCATION	PLANNING COMMUNITY	KSI CRASHES
1	**Oil Well Rd & FL-29**	*Royal Fakapalm*	*7*
2	**Golden Gate Pkwy & Collier Blvd**	*Golden Gate*	*3*
3	**Neapolitan Way & Tamiami Trl**	*City of Naples*	*4*
4	**Airport Rd & Pine Ridge Crossing**	*Central Naples*	*4*
5	**FL-82 & Corkscrew Rd**	*Corkscrew*	*4*
6	**Tamiami Trl & Goodlette-Frank Rd**	*City of Naples*	*4*
7	**Tamiami Trl & Airport Rd**	*East Naples*	*4*
8	**Golden Gate Pkwy & Goodlette-Frank Rd**	*City of Naples*	*4*
9	**Davis Blvd & Airport Rd**	*East Naples*	*4*
10	**Davis Blvd & Collier Blvd**	*Royal Fakapalm*	*3*

For full lists of Tier I locations, please see* **Appendix B: Existing Conditions & Safety Analysis Memorandum.

Top 10* Locations: Rural Roadways

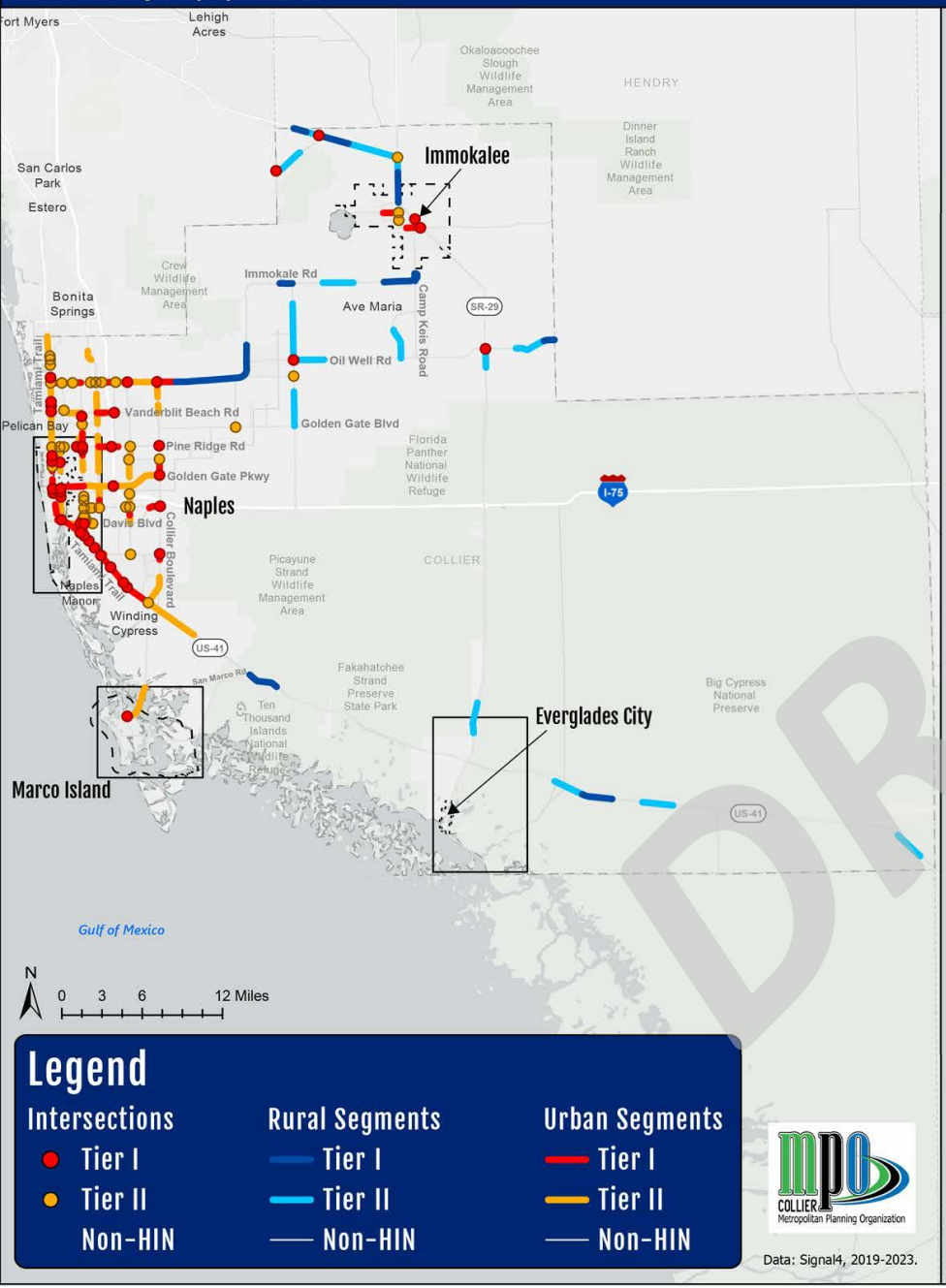
RANK	SEGMENT NAME	SEGMENT START	SEGMENT END	PLANNING COMMUNITY	MILES	KSI
1	**Oil Well Rd**	*3/4 Mi West of County Line Rd*	*County Line Rd*	*Corkscrew*	*0.68*	*3*
2	**N 15th St**	*New Market Rd*	*Johnson Rd*	*Corkscrew*	*1.97*	*8*
3	**Immokalee Rd**	*Orange Tree Blvd*	*Oil Well Rd*	*Rural Estates*	*0.36*	*1*
4	**Immokalee Rd**	*Majestic Trails Blvd*	*Wilson Blvd N*	*Rural Estates*	*1.84*	*4*
5	**Immokalee Rd**	*Oil Well Rd*	*41st Ave NE*	*Rural Estates*	*1.02*	*3*
6	**Immokalee Rd**	*Randall Blvd*	*Orange Tree Blvd*	*Rural Estates*	*0.60*	*1*
7	**Immokalee Rd**	*1/4 Mi east of Redhawk Ln*	*Everglade Blvd N*	*Rural Estates*	*0.80*	*2*
8	**FL-82**	*Hendry County Line*	*S Church Rd*	*Corkscrew*	*0.82*	*2*
9	**Immokalee Rd**	*Montserrat Ln*	*Majestic Trails Blvd*	*Rural Estates*	*2.00*	*2*
10	**Immokalee Rd**	*1/2 Mi east of 25675 Immokalee Rd*	*Camp Keais Rd*	*Corkscrew*	*2.34*	*4*

Top 10* Locations: Urban Roadways

RANK	SEGMENT NAME	SEGMENT START	SEGMENT END	PLANNING COMMUNITY	MILES	KSI
1	**Pine Ridge Rd**	*I-75 West Ramp*	*I-75 East Ramp*	*Urban Estates*	*0.13*	*3*
2	**Tamiami Trl**	*Bayshore Dr*	*Airport Rd*	*East Naples*	*0.25*	*5*
3	**Airport Rd**	*Cougar Dr*	*Naples Blvd*	*North Naples*	*0.18*	*3*
4	**W Main St**	*S 9th St*	*Immokalee Rd*	*Immokalee*	*0.45*	*7*
5	**Airport Rd**	*Estey Ave*	*North Rd*	*East Naples*	*0.21*	*3*
6	**Tamiami Trl**	*4th Ave N*	*7th Ave N*	*City of Naples*	*0.28*	*4*
7	**Collier Blvd**	*Golden Gate Pkwy*	*Green Blvd*	*Golden Gate*	*0.99*	*13*
8	**Tamiami Trl**	*Barefoot Williams Rd*	*Lely Resort Blvd*	*South Naples*	*0.63*	*7*
9	**Pine Ridge Rd**	*I-75 East Ramp*	*Napa Blvd*	*Urban Estates*	*0.19*	*2*
10	**5th Ave S**	*9th St S*	*Goodlette-Frank Rd*	*City of Naples*	*0.20*	*2*

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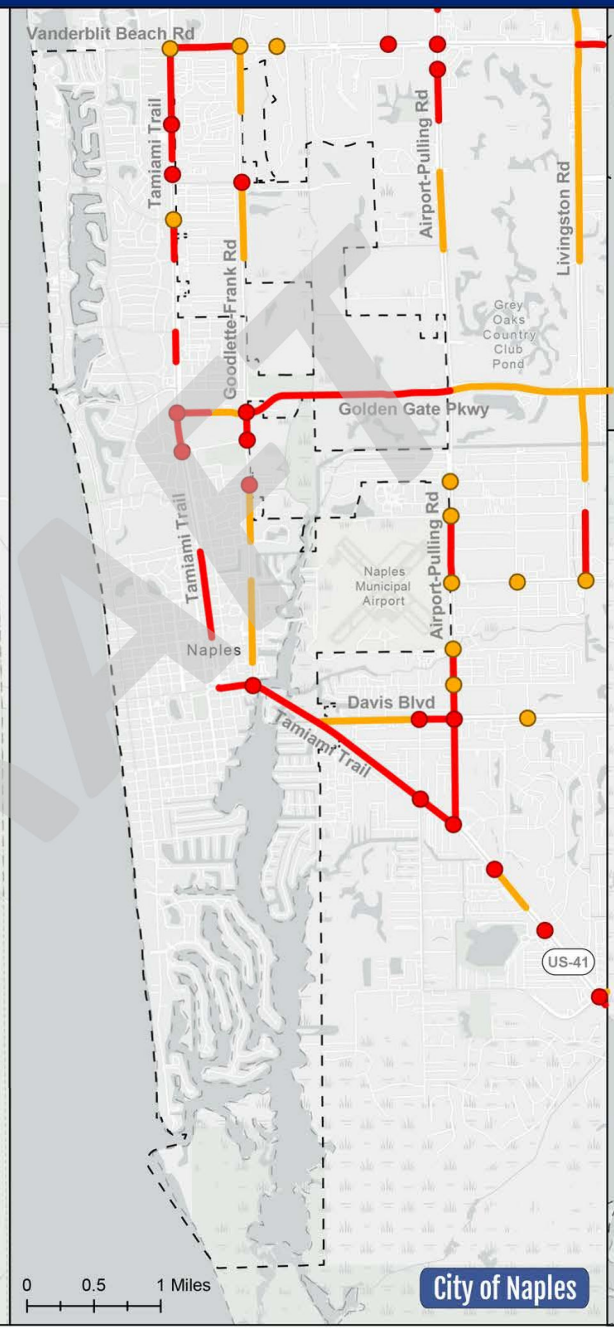
All-Modes High-Injury Network

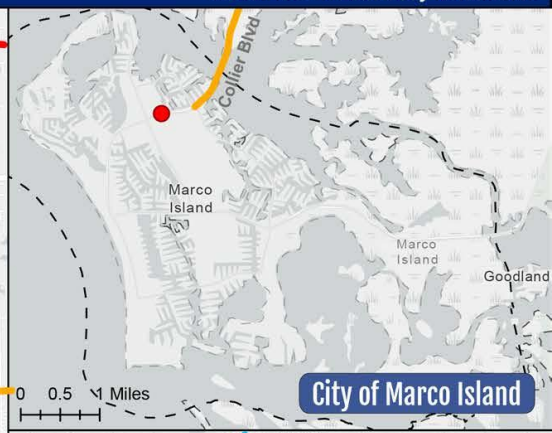


Legend

Intersections	Rural Segments	Urban Segments
Tier I	Tier I	Tier I
Tier II	Tier II	Tier II
Non-HIN	Non-HIN	Non-HIN

Data: Signal4, 2019-2023.







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BICYCLE AND PEDESTRIAN HIGH INJURY NETWORK

In addition to All-Modes High Injury Network, a secondary HIN was developed to identify top intersections and segments for bicycle and pedestrian KSI crashes. This HIN can support the MPO's Bicycle and Pedestrian Master planning efforts, as well assist in prioritizing projects that support the most vulnerable roadway users, which includes pedestrians and cyclists.

Two tiers of priority locations were also identified for this HIN. Cumulatively, the Tier I and Tier II Bicycle and Pedestrian High Injury Network account for the top 20% of traffic safety scores. Cutoffs between tiers were identified to provide a substantial portion of KSI within each tier, while not adding an excessive number of intersections or roadway mileage.

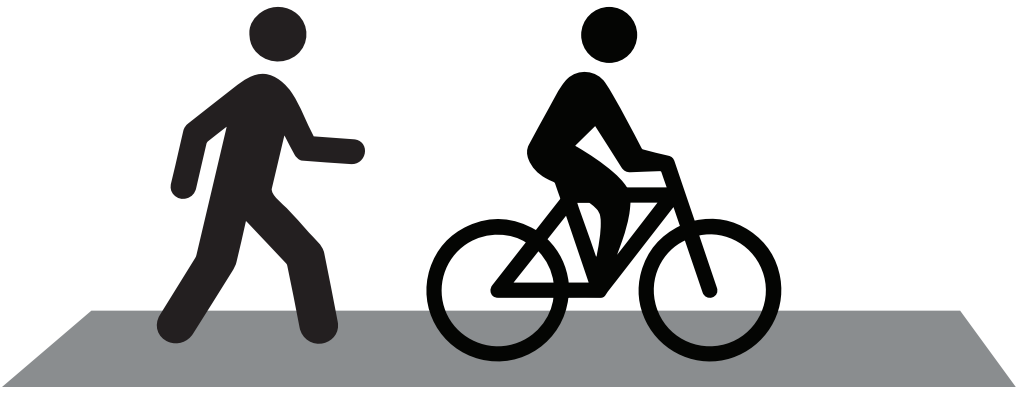
The Bicycle and Pedestrian HIN includes:

- 97 Bicycle and Pedestrian KSI crashes
- 100 miles roadways (urban + rural)
- 48 intersections, equating to (2.7 miles of roadway)

THE FULL BICYCLE AND PEDESTRIAN HIN (TIER I & II): CAPTURES 46% OF BICYCLE AND PEDESTRIAN KSI CRASHES ON JUST 3.8% OF ROADWAY MILES.

TIER I: CAPTURES 30% OF KSI CRASHES ON JUST 0.6% OF ROADWAY MILES.

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For full lists of Tier I locations, please see* **Appendix B: Existing Conditions & Safety Analysis Memorandum.

Top 10* Locations: Rural Roadways

RANK	SEGMENT NAME	SEGMENT START	SEGMENT END	PLANNING COMMUNITY	MILES	BIKE-PED KSI
1	**Tamiami Trl**	*Bayshore Dr*	*Airport Rd S*	*East Naples*	*0.25*	*5*
2	**W Main St**	*N 9th St*	*N 1st St*	*Immokalee*	*0.45*	*6*
3	**Airport Rd S**	*Estey Ave*	*North Rd*	*East Naples*	*0.21*	*2*
4	**Pine Ridge Rd**	*I-75 West Ramp*	*I-75 East Ramp*	*Urban Estates*	*0.13*	*1*
5	**E Main St**	*N 1st St*	*New Market Rd E*	*Immokalee*	*0.35*	*1*
6	**S 1st St**	*Stockade Rd*	*Main St*	*Immokalee*	*1.47*	*4*
7	**Pine Ridge Rd**	*I-75 E Onramp*	*Napa Blvd*	*Urban Estates*	*0.19*	*1*
8	**5th Ave S**	*9th St S*	*S Goodlette Frank Rd*	*City of Naples*	*0.20*	*1*
9	**Airport Rd S**	*Davis Blvd*	*Estey Ave*	*East Naples*	*0.20*	*1*
10	**Bayshore Dr**	*Thomasson Dr*	*Tamiani Trl*	*East Naples*	*1.37*	*3*

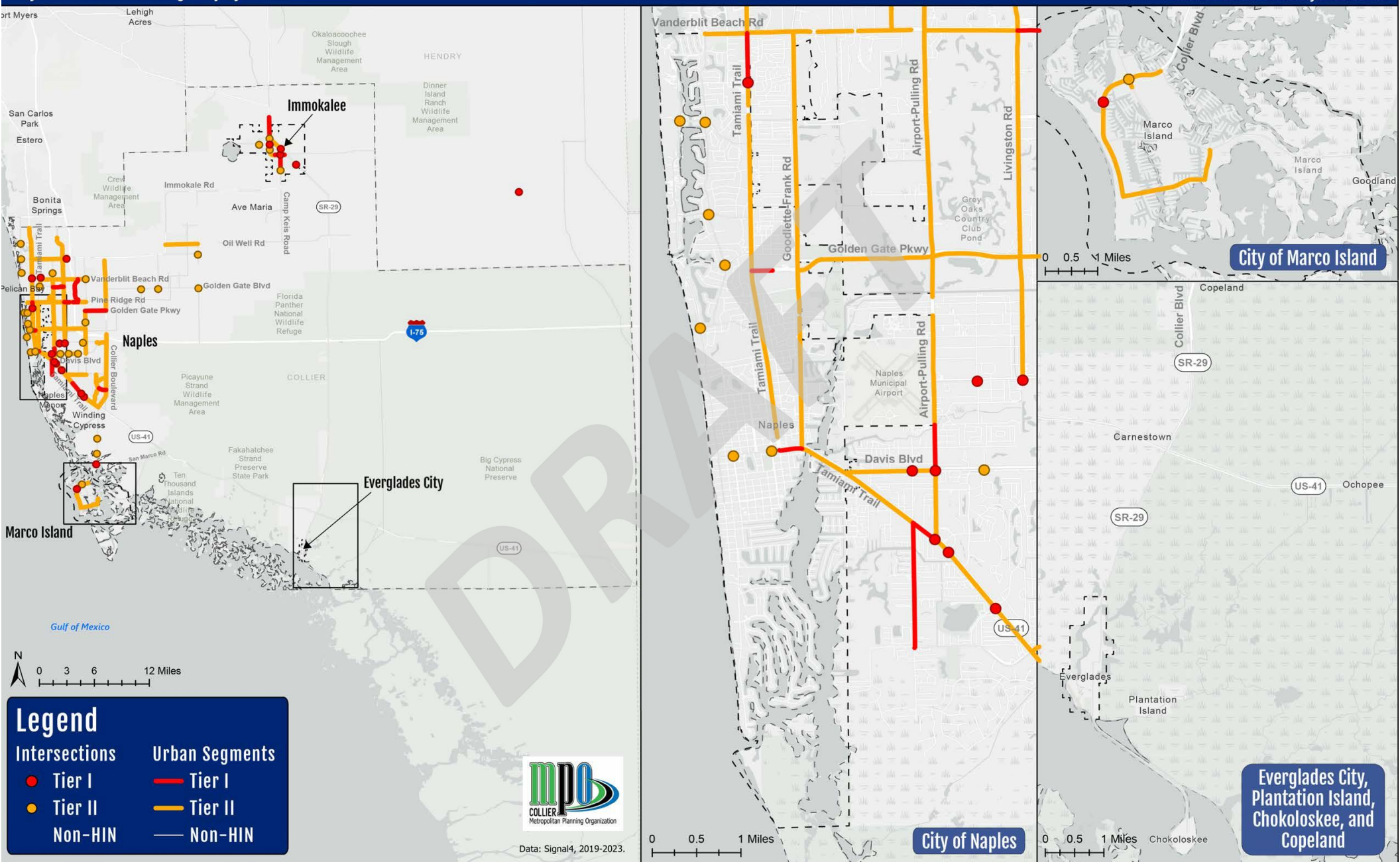
Top 10* Locations: Urban Roadways

RANK	LOCATION	PLANNING COMMUNITY	BIKE-PED KSI
1	**Airport Rd & Tamiami Trl**	*East Naples*	*2*
2	**Pelican Bay Blvd & Tamiami Trl**	*North Naples*	*2*
3	**Radio Rd & Livingston Rd**	*East Naples*	*1*
4	**Kendall Dr & N Collier Blvd**	*City of Marco*	*1*
5	**Vanderbilt Beach Rd & N Goodlette Frank Rd**	*North Naples*	*1*
6	**Davis Blvd & Airport Rd S**	*East Naples*	*1*
7	**Immokalee Rd & Strand Blvd**	*Urban Estates*	*1*
8	**Tamiami Trl & Whistlers Cove Blvd**	*South Naples*	*1*
9	**Tamiami Trl & Broward St**	*South Naples*	*1*
10	**Tamiami Trl & Lakewood Blvd**	*East Naples*	*1*

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Bicycle and Pedestrian High-Injury Network

Collier MPO SS4A Safety Action Plan

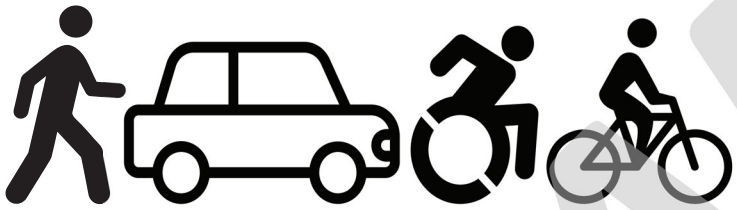


Legend

Intersections	Urban Segments
Tier I	Tier I
Tier II	Tier II
Non-HIN	Non-HIN

Data: Signal4, 2019-2023.

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ACTION PLAN

GUIDING GOALS
IMPLEMENTATION ACTIONS
COUNTERMEASURES TOOLKIT
PRIORITZING SAFETY PROJECTS & DESIGNING SAFER ROADWAYS

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GUIDING GOALS

Collier MPO is committed to reducing serious injuries and fatalities by 25% by 2050. The Collier MPO Safety Action Plan, through coordination and feedback from the Steering Committee, has developed six guiding goals to advance roadway safety.

These goals were developed in alignment with the Safe System approach and informed by public and stakeholder engagement. The goals reflect the broad spectrum of elements that influence roadway safety.

1 **Promote a culture of safety among the public and within agencies** to prevent severe crashes by addressing the root causes of dangerous driving, including channels such as increased traffic education and enforcement.

2 **Design safe streets for everyone** with improvements that reduce speeds and mitigate risky driving and support complete streets and multimodal design.

3 **Collaborate to integrate safety into multi-jurisdictional policies** and processes, reducing severe crash risks.

4 **Expand safe mobility options** by securing resources for accessible, affordable, multimodal, and connected networks for all ages and abilities.

5 **Enhance data sharing and transparency** throughout the county and among the member entities.

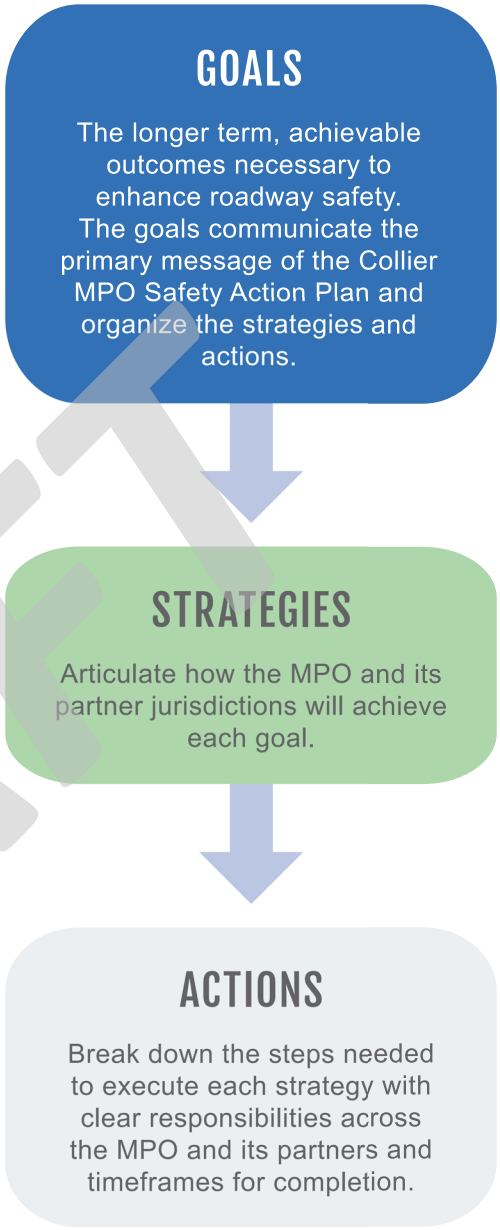
6 **Increase and expand implementation pathways**, including funding support.

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IMPLEMENTATION ACTIONS

In alignment with each goal, the MPO has developed seventeen strategies and forty-one actions to implement in order to achieve these goals. Each **strategy** reflects a high-level approach to achieving one element of the overall goal. Each **action item** is a more detailed means of implementing the strategy. The strategies and actions are organized based on the goals established through collaboration with the steering committee and the focus areas of the Safe System approach of Safer Roads, Safer People, Safer Vehicles, Safer Speeds, and Post-Crash Care. The actions are further supplemented with information to help the MPO prioritize and implement:

- **"Time to Implement"** represents the expected time required to implement the action. The actions are broken down between short term (less than one year), medium term (1-3 years), and long term (more than 3 years).
- **"Cost to Implement"** represents the expected cost to implement the action. The actions are broken down between low cost (represented as $), medium cost ($$), and high cost ($$$). Low-cost efforts are anticipated to be those that could be implemented using existing resources. Medium-cost and high-cost actions may require the responsible party to pursue additional funding, with high costs associated with capital construction projects.
- **"Leader"** represents the party responsible for implementing the action.
- **"Contributor"** represents the party or parties responsible for playing a supporting role in implementing the action.
- **"Performance Metric"** represents a suggested achievable demonstration that the action is being or has been implemented.



For additional details on the development of these actions, please see **Appendix C: Countermeasure and Policy Recommendations Memorandum.**



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1 GOAL 1. Promote a culture of safety among the public and within agencies to prevent severe crashes by addressing the root causes of dangerous driving, including channels such as increased traffic education and enforcement.

STRATEGY	ACTION	SAFE SYSTEM OBJECTIVE	TIME TO IMPLEMENT (Short, Medium, Long)	COST TO IMPLEMENT ($, $$, $$$)	LEADER	CONTRIBUTOR	PERFORMANCE METRIC
1.1. Conduct county-wide outreach and education around traffic safety best practices	*1.1.1. Hold regional and local community engagement events tied to the implementation of traffic safety investments that help residents understand new elements of the system and foster a shared vision of traffic safety in Collier County*	*Safer People*	*Short*	*$*	*Collier & Lee MPOs*	*Local Governments, Police/Fire/EMS, Community Traffic Safety Team (CTST), Naples Pathways Coalition (NPC)*	*Number of events held annually*
	1.1.2. Partner with local community organizations and schools to host traffic safety events to educate the demographic groups disproportionately impacted, Children, and those aged 20-3 using shared materials (see Action 3.1.3)	*Safer People*	*Medium*	*$$*	*Local Governments & Police Departments, Collier County Public Schools (CCPS) Universities, CTST, NPC*	*Collier MPO*	*Number of events held annually; groups targeted*
	1.1.3. Release targeted educational campaigns during winter and spring to increase awareness of increased roadway activity	*Safer People*	*Short*	*$*	*Local Governments, Police/Fire/EMS*	*Collier MPO*	*Number of media releases, hits/views*
1.2. Strengthen the capacity of law enforcement to strategically enforce roadway regulations and efficiently allocate resources to better protect vulnerable road users	*1.2.1. Identify areas on the HIN with high incidents of speeding, distracted driving, and high crash locations for law enforcement to conduct high-visibility enforcement*	*Safer Speeds, Safer People*	*Short*	*$*	*Local Police Departments*	*Collier MPO*	*Number of high-visibility enforcement events conducted*
	1.2.2. Provide training for law enforcement on bicycle and pedestrian traffic laws, including the latest definitions for electric bicycles and other new mobility devices	*Safer People, Safer Vehicles*	*Medium*	*$$*	*Local Police Departments*	*Local Governments*	*Number of trainings held*
	1.2.3. Provide high-profile enforcement of distracted driving coordinated with an education campaign on safe use of technology while driving	*Safer Speeds, Safer People*	*Medium*	*$$*	*Local Police Departments*	*Collier MPO*	*Number of high-visibility enforcement events conducted*
	1.2.4. Assist Police/Fire/EMS in acquiring technological advancements to improve enforcement and response capabilities	*Safer Speeds, Safer People*	*Medium*	*$*	*Police/Fire/EMS*	*Collier MPO, FDOT*	*Number and type of technological advancements acquired and implemented*
1.3. Improve safety in parking lots through targeted outreach	*1.3.1. Research extent of issue; develop an education campaign focused on raising awareness of collisions in parking lots and best practices for drivers and pedestrians in parking lots*	*Safer People*	*Short*	*$*	*Collier MPO*	*Police/Fire/ EMS, Chamber of Commerce*	*Development and distribution of educational materials*
1.4. Improve the safety of motorcycle travel through targeted outreach	*1.4.1. Launch a public awareness campaign on safely sharing roads with motorcyclists*	*Safer Vehicles*	*Short*	*$*	*Police/Fire/EMS*	*Collier MPO*	*Development and distribution of educational materials*
1.5. Increase awareness about e-bikes and their safe operation through targeted outreach	*1.5.1. Conduct a public awareness campaign on safe e-bicycle operation and sharing the roadway*	*Safer Vehicles, Safer People*	*Medium*	*$*	*Local Governments, Police/Fire/EMS*	*Collier MPO, NPC, CTST*	*Number of media releases, hits*
	1.5.2. Offer training courses and resources for safe e-bicycle use, including how to operate e-bikes, understanding roadway regulations, and safe operation	*Safer People*	*Medium*	*$$*	*Local Governments & Police Departments*	*Collier MPO*	*Number of trainings held*

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2 GOAL 2. Design Safe Streets for Everyone with improvements that reduce speeds and mitigate risky driving and support complete streets and multimodal design.

STRATEGY	ACTION	SAFE SYSTEM OBJECTIVE	TIME TO IMPLEMENT (Short, Medium, Long)	COST TO IMPLEMENT ($, $$, $$$)	LEADER	CONTRIBUTOR	PERFORMANCE METRIC
2.1. Prioritize funding for safety improvements along the High Injury Network (HIN)	*2.1.1. Prioritize the HIN for TIP selections, to fund safety countermeasures on corridors identified in the Safety Action Plan*	*Safer Roads*	*Medium*	*$*	*Collier MPO and Local Governments*	*FDOT*	*Updated TIP Prioritization*
	2.1.2. Conduct roadway safety audits at key segments along the HIN and develop a program to implement the recommendations	*Safer Roads*	*Medium*	*$$*	*Local Governments*	*FDOT / Collier MPO*	*Number of roadway safety audits funded and conducted*
	2.1.3. Coordinate with FDOT to ensure investments at high-crash intersections and corridors under the state's jurisdiction	*Safer Roads*	*Long*	*$$$*	*Collier MPO*	*FDOT*	*Share of TIP dedicated to HIN intersections*
2.2. Develop and fund projects that implement a toolkit of proven safety countermeasures that can be implemented through roadway projects focused on contributing factors to fatal and serious injury crashes, including speeding and roadway departure	*2.2.1. Distribute the Safety Action Plan Countermeasures Toolkit, featuring traffic calming measures as options for enhancing traffic safety in local roadway projects*	*Safer Roads, Safer Speeds*	*Long*	*$$$*	*Collier MPO*	*FDOT / Local Governments*	*Publish, distribute and fund projects that implement the SAP traffic calming toolkit*
	2.2.2. Implement speed feedback signs on the HIN at locations with a higher share of speed related crashes and/or near land-uses that generate pedestrian and bicycle trips	*Safer Roads, Safer Speeds*	*Short*	*$$*	*Collier County*	*FDOT / Collier MPO / Local Governments*	*Number of speed feedback signs installed*
	2.2.3. Study intersections on the HIN with a history of right-angle and head-on crashes to evaluate the suitability of roundabouts to reduce the number of potential conflicts and fund project implementation	*Safer Roads, Safer Speeds*	*Long*	*$$$*	*Local Governments*	*FDOT / Collier MPO*	*Number of intersections on the HIN evaluated for roundabout suitability*
	2.2.4. Implement proven safety countermeasures that can reduce roadway departure crashes, such as centerline and shoulder rumble strips along rural roadways, wider edge lines, and advance warning signs, pavement markings, and retroreflective strips at curves	*Safer Roads, Safer Speeds*	*Medium*	*$$*	*Collier County and FDOT*	*Collier MPO*	*Number of projects implementing roadway departure countermeasures*
2.3. Develop complete networks for all modes that prioritize connectivity	*2.3.1. Implement projects to close sidewalk gaps identified in the BPMP and projects to meet ADA accessibility requirements*	*Safer Roads, Safer People*	*Long*	*$$$*	*Local Governments*	*Collier MPO*	*Submit projects for MPO and local funding*
	2.3.2. Implement the recommendations of the Bicycle-Pedestrian Master Plan, implement projects that create a well-connected network of facilities linking residential areas to schools, parks, business, and public transit	*Safer Roads, Safer People*	*Long*	*$$$*	*Local Governments*	*Collier MPO*	*Increased bike/ped facility lane miles*
2.4. Ensure all road users are prioritized in the planning of transportation infrastructure	*2.4.1. Incorporate Complete Streets principles in roadway corridor design and construction projects*	*Safer Roads, Safer People*	*Medium*	*$$*	*Local Governments*	*Collier MPO, FDOT*	*Updated transit and bike/ped facilities inventory (five-year cycle)*
	2.4.2 Separate bicyclists from pedestrians and vehicles through design strategies such as shared-use paths and separated bike lanes, as recommended in the Bicycle-Pedestrian Master Plan	*Safer Roads, Safer People*	*Medium*	*$$*	*Local Governments*	*Collier MPO*	*Updated transit and bike/ped facilities inventory (five-year cycle)*
	2.4.3. Conduct outreach to encourage pedestrian, bicycle, motorcycle, micromobility and other non-vehicular road users to participate in public meetings or new roadway projects	*Safer Roads, Safer People*	*Short*	*$*	*Local Governments*	*Collier MPO*	*Representation of user groups at public meetings and comments*
2.5. Prioritize infrastructure investments that increase the safety of school, children, for all modes of travel	*2.5.1. Include school-related safety projects for prioritization in the TIP*	*Safer Roads, Safer People*	*Medium*	*$$*	*CCPS and Collier MPO*	*Local Governments*	*Inclusion in MPO Board's approved priority project lists*

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3 GOAL 3. Collaborate to integrate safety into multi- jurisdictional policies and processes, reducing severe crash risks.

STRATEGY	ACTION	SAFE SYSTEM OBJECTIVE	TIME TO IMPLEMENT (Short, Medium, Long)	COST TO IMPLEMENT ($, $$, $$$)	LEADER	CONTRIBUTOR	PERFORMANCE METRIC
3.1. Bolster the capacity of member entities to conduct traffic safety initiatives and programs	*3.1.1. Participate in the CTST quarterly meetings to report on crash data, educational activities, and other road safety metrics in the SAP*	*Safer People*	*Short*	*$*	*Collier MPO*	*Local Governments, Police/Fire/EMS, and other Steering Committee Members*	*Increased participation in CTST quarterly meetings*
	3.1.2. Facilitate local governments, police/fire/EMS access to funding for safety-related programs, facilities resources, and public outreach	*Safer Roads, Safer People*	*Long*	*$*	*Collier MPO*	*Local Governments, Police/Fire/EMS, FDOT*	*Share of spending on safety focused projects*
	3.1.3. Share collateral between local governments, nonprofits and partner agencies on educational, outreach, and engagement efforts	*Safer People*	*Medium*	*$*	*Collier MPO*	*Local Governments, Police/Fire/EMS, CCPS, NPC*	*Development of shared educational materials*
	3.1.4. Integrate traffic safety countermeasures in repaving projects	*Safer Roads*	*Medium*	*$*	*Collier MPO*	*Local Governments*	*Include as eligible project category for MPO funding assistance; Number of projects funded*
3.2. Collaborate on funding opportunities that enhance Vision Zero goals	*3.2.1. Identify funding opportunities for regional or multi-jurisdictional safety improvement projects*	*Safer Road*	*Medium*	*$$*	*Collier MPO*	*Local Governments, FDOT*	*Amount of funding dedicated to regional safety improvement projects*
	3.2.3. Coordinate a grant strategy across local governments to maximize opportunities to win funding that would impact region-wide safety goals	*Safer People*	*Medium*	*$*	*Collier MPO*	*Local Governments*	*Number of grant opportunities pursued*

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4 GOAL 4. Expand safe mobility options by securing resources for accessible, affordable, multimodal, and connected networks for all ages and abilities.

STRATEGY	ACTION	SAFE SYSTEM OBJECTIVE	TIME TO IMPLEMENT (Short, Medium, Long)	COST TO IMPLEMENT ($, $$, $$$)	LEADER	CONTRIBUTOR	PERFORMANCE METRIC
4.1. Protect and connect active transportation users through dedicated infrastructure	*4.1.1. Consistent with the BPMP, prioritize recommendations from locally adopted plans and studies that focus on investments in transit, bicycle, and pedestrian connectivity near community destinations such as schools and parks*	*Safer Roads, Safer People*	*Medium*	*$*	*Local Governments*	*Collier MPO, FDOT*	*Track MPO Board priority projects for bicycle, pedestrian, and transit connectivity*
4.2. Consistent with MPO's Bicycle and Pedestrian Master Plan and Congestion Management Plan, prioritize projects for safety funding that improve safety and accessibility for pedestrian and bicyclists	*4.2.1. Research the effectiveness and, if warranted, develop guidance and implement pilot projects on the use of leading pedestrian intervals (LPI) and leading bicycle intervals (LBI) to reduce conflicts between pedestrians and turning vehicles*	*Safer Roads, Safer People*	*Medium*	*$$*	*Local Governments*	*Collier MPO, FDOT*	*Policy guidance on LPI and LBI; number of pilot projects*
	4.2.2. Fund projects that include markings and treatments such as refuge islands, RRFB, HAWK, based on roadway and traffic characteristics such as volumes, speed, and number of lanes	*Safer Roads, Safer People*	*Medium*	*$$*	*Local Governments*	*Collier MPO, FDOT*	*Number of funded projects*
	4.2.3. Establish funding eligibility for streetlighting for pedestrians, micromobility users, and cyclists to provide adequate lighting levels and visibility	*Safer Roads, Safer People*	*Medium*	*$*	*Collier MPO*	*FDOT / Local Governments*	*Include streetlighting for pedestrians, micromobility users, and cyclists as an eligible project category for MPO funding.*

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5 GOAL 5. Enhance data sharing and transparency throughout the county and among the member entities.

STRATEGY	ACTION	SAFE SYSTEM OBJECTIVE	TIME TO IMPLEMENT (Short, Medium, Long)	COST TO IMPLEMENT ($, $$, $$$)	LEADER	CONTRIBUTOR	PERFORMANCE METRIC
5.1. Establish the routine sharing of information to raise awareness of traffic safety initiatives and progress across the region	*5.1.1. Expand safety components of the MPO's Annual Report to track progress on traffic safety goals, crash statistics, and outreach initiatives in the SAP*	*Safer People*	*Short*	*$*	*Collier MPO*	*Local Governments / FDOT*	*Annual report*
	5.1.2. Investigate current practices and potential improvements in data sharing between local hospitals and police/fire/EMS to ensure completeness of crash data	*Post Crash Care, Safer People*	*Medium*	*$*	*CTST*	*Collier MPO*	*Number of data sharing agreements*
	5.1.3. Pilot the use of new technologies to collect and analyze traffic safety data, such as near-miss detection and AI; and share the results of the pilots across the MPO	*Safe People, Safer Roads*	*Medium*	*$$*	*Local Governments*	*Collier MPO / FDOT*	*Number of pilot technologies evaluated & implemented*
	5.1.4. Report on contributing factors of fatal crashes to the CTST and encourage SAP Steering Committee participation	*Safe People, Safer Roads*	*Short*	*$*	*CTST*	*Collier MPO, Local Governments, Polic/Fire/EMS, FDOT*	*Increased participation in CTST quarterly meetings*

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6 GOAL 6. Increase and expand implementation pathways, including funding support.

STRATEGY	ACTION	SAFE SYSTEM OBJECTIVE	TIME TO IMPLEMENT (Short, Medium, Long)	COST TO IMPLEMENT ($, $$, $$$)	LEADER	CONTRIBUTOR	PERFORMANCE METRIC
6.1. Pursue federal and state funding sources for traffic safety	*6.1.1. Leverage alignment with other MPO priorities such as congestion mitigation, bike/ped planning, the Shared Use Non-Motorized (SUN) Trail network, wildlife connectivity, and active transportation network development) to strategically pursue funding streams not explicitly designated for safety, but capable of supporting traffic safety enhancements*	*Safer Roads*	*Medium*	*$$*	*Collier MPO*	*Local Governments*	*Share of TIP projects that include safety countermeasures and elements*
6.2. Support regional and local project readiness to move projects forward	*6.2.1. Pursue Federal Lands Access Program Grants to complete projects that provide safe access to the Everglades and Federal Lands*	*Safer Roads*	*Medium*	*$*	*Local Municipalities*	*Collier MPO*	*Number of grant opportunities pursued*
	6.2.2. Use the crash data and systemic risk analysis from this Safety Action Plan to guide long-term investments in the TIP	*Safer People, Safer Roads*	*Short*	*$*	*Collier MPO*	*Local Governments*	*Share of funding dedicated to safety-focused projects*

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COUNTERMEASURE TOOLKIT

Countermeasures are traffic safety solutions designed to reduce the risk of crashes or address existing crash problems. They play a key role in shaping safer roadway behavior and tackling both broad and specific safety issues.

This toolkit highlights proven safety countermeasures available to improve roadway safety in Collier County, especially along the High Injury Network. While some of these measures are already in use, broader implementation can further improve road safety. The following pages aim to deepen understanding of these tools and illustrate their potential applications.

This is not an exhaustive list. The Collier MPO and its partner agencies may explore and incorporate a wider range of safety solutions as needed. Additional countermeasures include, but are not limited to:

- Blue Lights
- Chicanes
- Diagonal Diverters
- Enhanced Delineation for Horizontal Curves
- Intersection Daylighting
- Left-Turn Traffic Calming
- Pavement Markings
- Safety Edges
- Speed Radars / Feedback Signs
- Speed Tables
- Traffic Signal Backplates with Retroreflective Borders

What is the Crash Modification Factors (CMF) Clearinghouse?

Many of the following descriptions include details from the CMF Clearinghouse, an online resource developed by the Federal Highway Administration (FHWA) to provide transportation professionals with reliable, research-based estimates of the safety effectiveness of various roadway treatments and countermeasures.

Learn More: Blue Lights

The blue light at a traffic signal is designed to deter red-light runners, while making it easier for law-enforcement officers to accurately spot them as they drive through a red light. In November 2024, the Board of County Commissioners for Collier County identified 20 high-crash intersections where blue lights should be installed.

Countermeasure
Indicates the type of intervention and name of the countermeasure.

Illustration
A visual representation of the countermeasure. Some colors are used to emphasize the tool, and do not represent real-world color conditions.

Description
A brief summary outlining the countermeasure and its intended outcome.

Level of Effort
The estimated effort required to implement the countermeasure:

Low – Quick to implement with minimal planning and little disruption to traffic or roadways.

Medium – Requires more coordination and resources, often involving layout changes, minor utility work, policy adjustments, or temporary lane closures.

High – Involves significant road network changes, extensive planning, engineering, and possible utility relocations, with major traffic disruptions.

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HOW TO USE THE TOOLKIT

Emphasis Areas
Identifies the situations or safety issue where the countermeasure is most effective.

Cost Estimate
The estimated budget required to implement the countermeasure.

$ – Can be implemented through striping, signage, traffic signalization changes, or minor pavement work.

$$ – May involve pavement and curb adjustments, as well as minor drainage or utility modifications.

$$$ – Requires major roadway reconstruction, potentially including utility relocations or installations, traffic signal upgrades, and significant drainage improvements.

INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

ROUNDABOUT

$ $ $



DESCRIPTION

The modern roundabout is an intersection with a circular configuration that safely and efficiently moves traffic. Roundabouts feature channelized, curved approaches that reduce vehicle speed, entry yield control that gives right-of-way to circulating traffic, and counterclockwise flow around a central island that minimizes conflict points. The net result of lower speeds and reduced conflicts at roundabouts is an environment where crashes that cause injury or fatality are substantially reduced.

LEVEL OF EFFORT

LOW | MODERATE | HIGH

SAFETY BENEFITS AND IMPACTS

- Roundabouts reduce motor vehicle through speeds by forcing motorists to maneuver around the island. As all traffic must maneuver around the island by turning right, left-turn crashes are eliminated and right-turn speeds are reduced.
- Initial research indicates that mini roundabouts can reduce vehicle speeds and crashes. According to the Crash Modification Factor (CMF) Clearinghouse, roundabouts can reduce crashes by up to 82%.

DESIGN GUIDANCE & CONSIDERATIONS

- Yielding should be used rather than stop controls.
- Signs should be installed to instruct vehicles to proceed to the right at the roundabout.
- Roundabouts may include shared lane markings (sharrows) to indicate cyclist usage.
- Roundabouts may include bike lanes if space allows.
- Roundabouts may also be used with W11-2, W11-2, S1-1, or W11-15 crossing warning sign.
- Roundabouts may be landscaped with low shrubs or vegetation that does not impede visibility.
- Aprons should be included to accommodate large, heavy vehicles.

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

REFERENCE DOCUMENTS

- FHWA, Roundabouts
- Insurance Institute for Highway Safety (IIHS), Roundabouts

Safety Benefits and Impacts
Provides a summary of how the countermeasure enhances safety for road users, drawing on information from supporting resources. As applicable, this section describes the expected impact on travel behavior, including potential reductions in crashes, vehicle speeds, and traffic volumes.

Design Guidance & Consideration
As applicable, outlines the typical dimensions for each countermeasure. While these guidelines offer a general reference, they may not cover all scenarios, so engineering judgment should be applied during design and implementation.

Reference Documents
Sources, with hyperlinks, for additional information.

Where it Works
The suitable contexts or applications of the countermeasure.

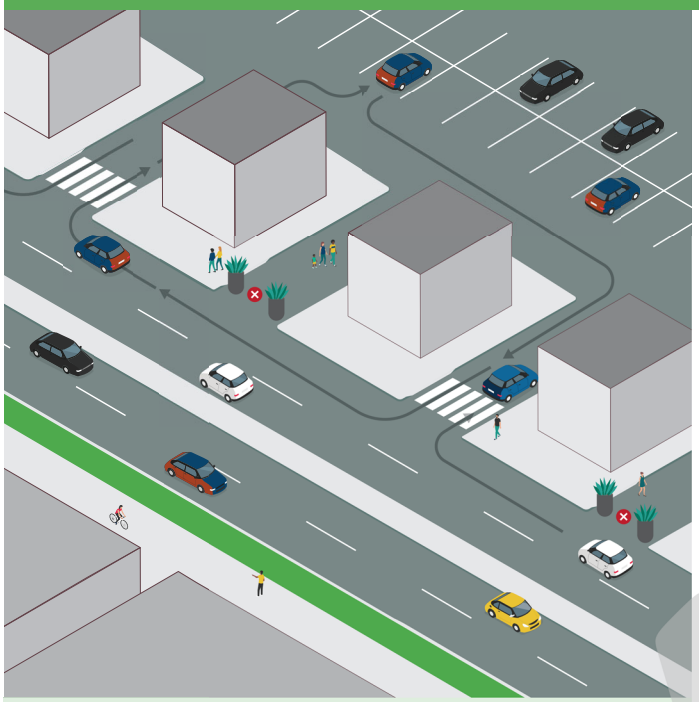
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INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

$ $ $

ACCESS MANAGEMENT



DESCRIPTION

Access management refers to the design, application, and control of entry and exit points along a roadway. This includes intersections with other roads and driveways that serve adjacent properties. Thoughtful access management along a corridor can simultaneously enhance safety for all modes, facilitate walking and biking, and reduce trip delay and congestion.

LEVEL OF EFFORT

LOW | MODERATE | **HIGH**

REFERENCE DOCUMENTS

- FHWA, Corridor Access Management

SAFETY BENEFITS AND IMPACTS

- Access management controls the location, spacing, and design of driveways and/or turning movements, which reduces conflicts between vehicles and pedestrians. Access management balances overall safety and mobility while addressing the needs of adjacent land uses.
- According to the Crash Modification Factor (CMF) Clearinghouse, access management can lead to a 5-23% reduction in total crashes along two-lane rural roads, and a 25-31% reduction in fatal and injury crashes along urban and suburban arterials.

DESIGN GUIDANCE & CONSIDERATIONS

- Limit allowable movements at driveways (such as right-in/right-out only).
- Place driveways on an intersection approach corner rather than a receiving corner.
- Implement raised medians that preclude across-roadway movements.
- Utilize designs such as roundabouts or reduced left-turn conflicts (such as restricted crossing U-turns, median U-turns, etc.).

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

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INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

ADA-COMPLIANT SIDEWALKS & CURB RAMPS

$ $ $



DESCRIPTION

ADA-compliant sidewalks are usually grade-separated walkways with a minimum width of 4 feet. Curb ramps, usually installed at pedestrian crossings, allow wheelchair users to access the sidewalk from the road. A buffer between the sidewalk and travel lane is recommended whenever possible.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- FHWA, Walkways
- PEDSAFE, Sidewalks, Walkways and Paved Shoulders

SAFETY BENEFITS AND IMPACTS

- Well-designed sidewalks and walkways improve the safety and mobility of pedestrians by providing a road-separated, direct, and connected network of pedestrian routes to desired locations.
- FHWA notes that sidewalks reduced 65% to 89% of crashes involving pedestrians walking along roadways.
- According to the Crash Modification Factor (CMF) Clearinghouse, sidewalks and walkways can reduce crashes by up to 40%.

DESIGN GUIDANCE & CONSIDERATIONS

- Sidewalks and curb ramps are essential in urban areas, particularly near school zones, transit locations and any other location with large amount of pedestrian activity. Wider sidewalks should be installed near schools and transit stops.
- The minimum 4ft width allows two people to pass comfortably or walk side-by-side. However, when the accessible width is less than 5ft, passing spaces are required at maximum intervals of 200ft. Passing spaces must be a minimum of 5ft by 5ft.
- Street furniture should not restrict pedestrian flow.
- Sidewalks should be continuous along both sides of a street and sidewalks should be fully accessible to all pedestrians, including those in wheelchairs.
- Curb ramps should be at least 36 inches wide and have a maximum slope of 1:12.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

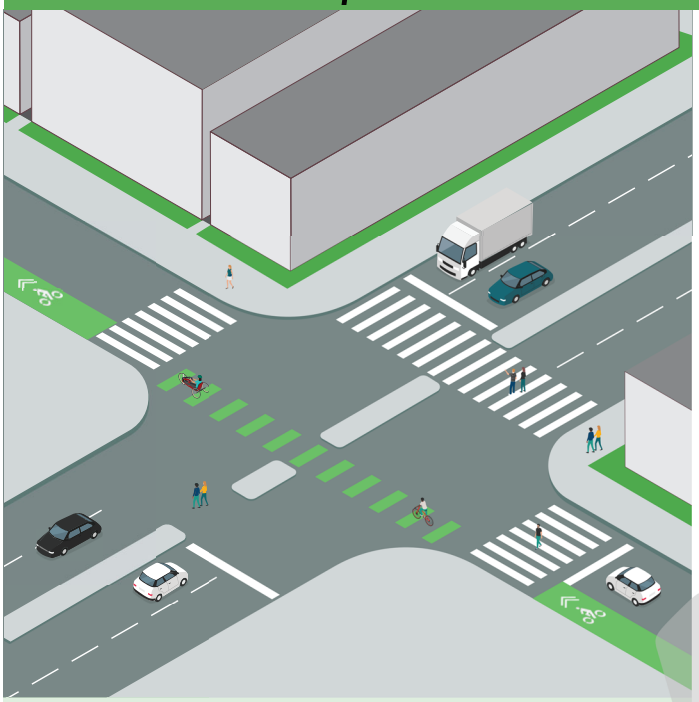
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INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

BIKE BOULEVARD/NEIGHBORHOOD GREENWAY

$ $ $



DESCRIPTION

Bike boulevards are shared roadways where a local street is modified to function as through-street exclusively for bikes while maintaining local access for automobiles. A neighborhood greenway is similar in that it gives priority to pedestrians and other micromobility users in addition to cyclists. These are generally quiet and slow streets and can act as connectors between neighborhoods, parks, schools and business districts.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- Seattle DOT, Neighborhood Greenways
- FHWA, Bikeway Selection Guide
- Small Town and Rural Design Guide, Bicycle Boulevard

SAFETY BENEFITS AND IMPACTS

- Bike boulevards improve safety conditions for pedestrians when implemented with sidewalks and enhanced pedestrian crossings. They also improve quality of life for residents through calmer traffic and safer crossings.
- Bike boulevards may reduce the incidence of serious injuries through reduced travel speeds.
- Bike boulevards/neighborhood greenways increase comfort for cyclists by reducing motor vehicle operating speeds.
- According to the Crash Modification Factor (CMF) Clearinghouse, bike boulevards can reduce crashes by up to 63%.

DESIGN GUIDANCE & CONSIDERATIONS

- Clear signage and markings, which can include unique branding, should communicate to all road users that they are on a bike boulevard, indicate that drivers should proceed with caution, and assist cyclists with wayfinding.
- Diverters that are designed to allow cyclists and pedestrians to continue through, but discourage vehicles from passing, should be used.
- Design features that facilitate a clear, comfortable experience for cyclists should be used, especially measures that enable safe crossings of major streets.

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

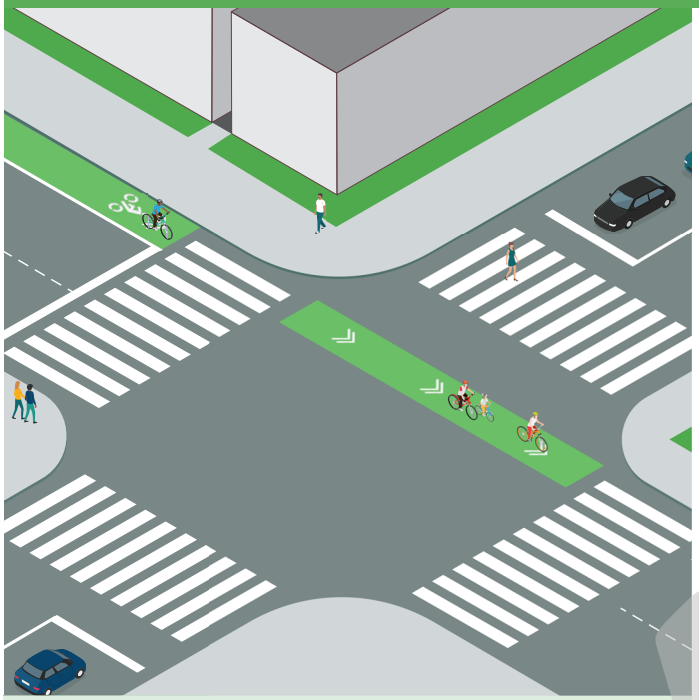
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INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

$ $ $

BIKE LANES



DESCRIPTION

Bike lanes provide a separate space on the road for cyclists, reducing conflicts and crashes between cyclists and motor vehicles. Additionally, they can narrow the travel lanes and pedestrian crossing distances in many applications. To maximize a roadway's suitability for riders of all ages and abilities, bike lane designs should vary according to roadway characteristics, user needs, and land use context. Separated bike lanes are recommended on roadways with higher vehicle volumes and speeds, such as arterials.

LEVEL OF EFFORT

LOW | MODERATE | HIGH

REFERENCE DOCUMENTS

- FHWA, Bicycle Lanes

SAFETY BENEFITS AND IMPACTS

- Bike lanes provide designated space for cyclists and reduces chance of collisions through physical separation of motorists, cyclists, and pedestrians.
- According to the Crash Modification Factor (CMF) Clearinghouse, implementing bike lanes can reduce crashes by up to 43%.
- Converting traditional or flush buffered bike lanes to a separated bike lane with flexible delineator posts can further reduce bike/vehicles crashes by up to 53%.

DESIGN GUIDANCE & CONSIDERATIONS

- On roads with two-to-four through-lanes, one-way directional separated bike lanes are preferred to a two-way separated bike lane on one side of the street since they:
  - » Follow normal traffic flows, whereas two-way separated bike lanes can create unexpected movements.
  - » Result in simpler transitions to other facilities.
  - » Are less likely to need signal modifications.
- Separated bike lanes can provide different levels of separation, such a flexible delineators, raised buffers, and on-street parking.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

DRAFT

INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

CROSSWALK VISIBILITY ENHANCEMENTS

$ $ $



DESCRIPTION

These include high-visibility crosswalks, lighting, and signing and pavement markings. They can help make crosswalks and the pedestrians, bicyclists, wheelchair and other mobility device users, and transit users using them more visible to drivers.

LEVEL OF EFFORT

LOW | MODERATE | HIGH

REFERENCE DOCUMENTS

- FHWA, Crosswalk Visibility Enhancements

SAFETY BENEFITS AND IMPACTS

- High-visibility crosswalks promote safety primarily by allowing drivers, pedestrians, and cyclists to see each other without obstructions.
- According to the Crash Modification Factor (CMF) Clearinghouse, crosswalk visibility enhancements can reduce crashes by up to 40%.
- High-visibility crosswalks can reduce pedestrian injury crashes up to 40%.
- Intersection lighting can reduce pedestrian crashes up to 42%.
- Advance yield or stop markings and signs can reduce pedestrian crashes up to 25%.

DESIGN GUIDANCE & CONSIDERATIONS

- High visibility crosswalks with traffic control devices are possible on two-lane roads with speed limits of 30 mph and Average Annual Daily Traffic (AADT) of less than 15,000 vehicles per hour. They are also possible on three-lane roads speed limits of 35 mph and AADT of less than 12,000 vehicles per hour.
- Yield signing should be placed 20 to 50 feet in advance of a marked crosswalk.
- On-street signing, such as “Stop here for pedestrians” or “Yield for pedestrians” would be appropriate on roads with two- or three-lanes where speed limits are 30 mph or less.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

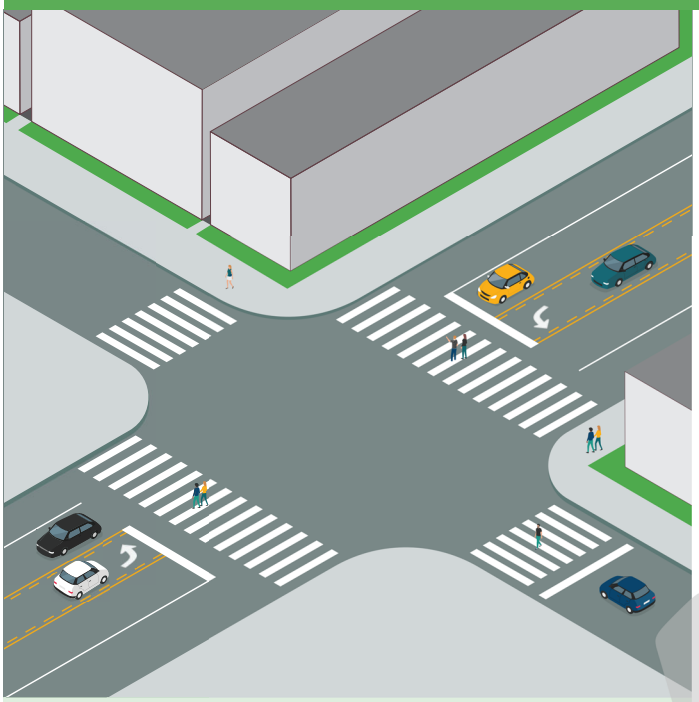
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INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

DEDICATED LEFT- & RIGHT-TURN LANES

$ $ $



DESCRIPTION

Dedicated turn lanes—either for left turns or right turns—provide physical separation between turning traffic that is slowing or stopped and adjacent through traffic at approaches to intersections. Turn lanes can be designed to provide for deceleration prior to a turn, as well as for storage of vehicles that are stopped and waiting for the opportunity to complete a turn.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- FHWA, Dedicated Left- and Right Turn Lanes at Intersections
- FHWA, Safety Effectiveness of Intersection Left- and Right-Turn Lanes

SAFETY BENEFITS AND IMPACTS

- Dedicated turn lanes improve safety by reducing the risk of severe crashes involving turning vehicles, such as left-turn collisions with oncoming traffic and rear-end crashes.
- Signalized dedicated turn lanes, especially those with left- or right-turn signals, can reduce the speed of turning vehicles by bringing them to a stop before being permitted to turn.
- According to the Crash Modification Factor (CMF) Clearinghouse, left-turn lanes can reduce total crashes by 28% to 48%.
- Positive offset left-turns can reduce fatal and injury crashes by up to 36%.
- Right-turn lanes can reduce total crashes by 14% to 26%.

DESIGN GUIDANCE & CONSIDERATIONS

- Installing left-turn lanes and/or right-turn lanes should be considered at signalized intersections, and on major road approaches at three- and four-leg intersections with stop control on the minor road, particularly where there are high turning volumes, to improve safety.
- Dedicated turn lanes should be installed with pedestrian and cyclist safety considerations, such as minimizing pedestrian crossing distances.

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

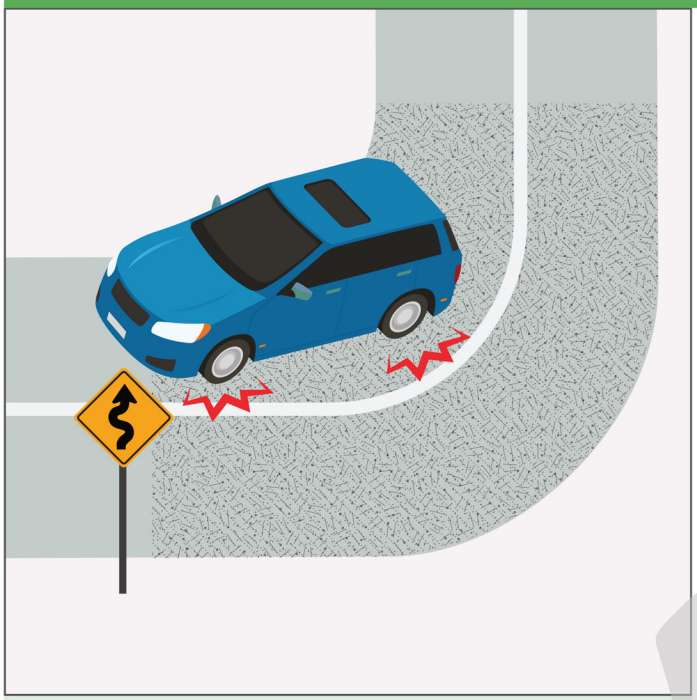
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INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

HIGH-FRICTION SURFACE TREATMENT

$ $ $



DESCRIPTION

High-friction pavement improves vehicle traction, especially in wet conditions, through the application of high-quality aggregate to the pavement using a polymer binder. This restores and/or maintains pavement friction at existing or potential high-crash areas, including curves, ramps, and intersections. It helps motorists maintain better control in both dry and wet driving conditions.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- FDOT, High Friction Surface Treatment Guidelines
- FHWA, High Griction Surface Treatments (HFST)
- FHWA, High Friction Treatment Site Selection and Installation Guide

SAFETY BENEFITS AND IMPACT

- High-friction pavement treatments reduce crashes, injuries, and fatalities associated with friction demand issues, such as: a reduction in pavement friction during wet conditions, and/or a high friction demand due to vehicle speed and/or roadway geometries.
- According to a research report published by the FHWA, high-friction pavement treatment is estimated to reduce wet crashes by 83% and total crashes by 57%.

DESIGN GUIDANCE & CONSIDERATIONS

- High-friction pavement should be applied in locations with a high crash rate related to friction deficiency (i.e. run-off-the-road crashes and wet-weather crashes), on rural horizontal curves where drivers tend to take turns too fast and super elevations are inadequate, or on tight-radius freeway loop ramps.

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

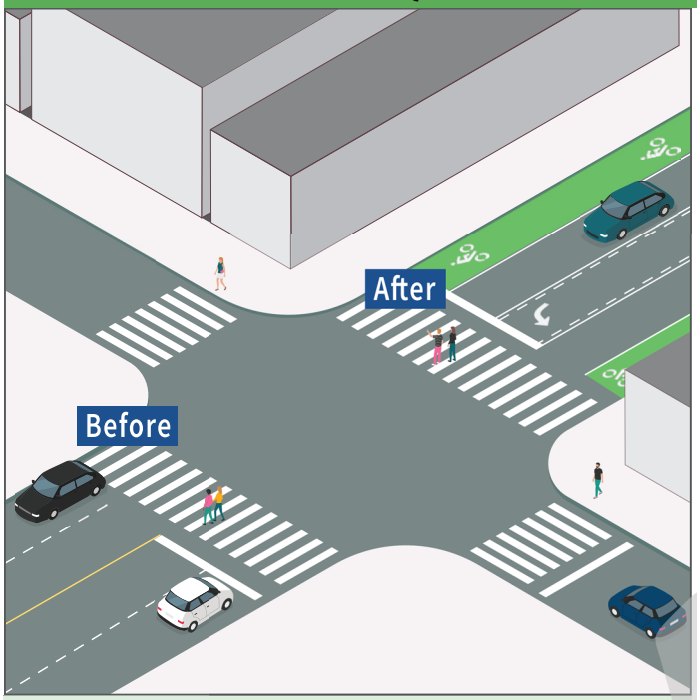
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INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

LANE REPURPOSING (ROADWAY RECONFIGURATION)

$ $ $



DESCRIPTION

Lane repurposing, also known as rightsizing or road dieting, is a traffic calming technique that involves reallocating roadway space to accommodate multiple modes of transportation, such as pedestrians, cyclists, and public transit, while reducing the amount of space dedicated to private vehicles. This may include reducing the number of travel lanes, adding bike lanes, installing pedestrian amenities, or creating center turn lanes. Lane repurposing is often implemented to improve safety, reduce congestion, enhance accessibility, and create more vibrant and walkable streetscapes.

LEVEL OF EFFORT

LOW | MODERATE | **HIGH**

REFERENCE DOCUMENTS

- FHWA, Road Diets (Roadway Reconfiguration)
- PEDSAFE, Lane Reduction (Road Diet)
- FDOT, Lane Repurposing Guidebook

SAFETY BENEFITS AND IMPACTS

- Lane repurposing provides many benefits. Where dedicated left-turn lanes are installed, rear-end and left-turn crashes are reduced. A reduction from four to three lanes reduce right-angle crashes as side street motorists cross fewer lanes. Lane reductions minimize pedestrian crossing distances, slow traffic down and provide more consistent speeds, and provide opportunities to install pedestrian refuge islands, bike lanes, on-street parking, or transit stops.
- The FHWA reports that lane repurposing can reduce crashes by 47% in small urban areas and 19% in suburban corridors of larger cities.
- According to the Crash Modification Factor (CMF) Clearinghouse, lane repurposing can reduce crashes by up to 29%.

DESIGN GUIDANCE & CONSIDERATIONS

- Removing a through lane can create space for bike lanes, turn lanes, wider sidewalks, medians, curb extensions, parking, transit lanes, or landscaping.
- Lane repurposing is often considered on roads with up to 24,000 daily vehicles.
- Section 334.61, Florida Statutes (F.S.), Traffic Lane Repurposing requires government entities to meet certain requirements for traffic studies, public notice, public meetings, and review on projects that include Lane Repurposing.

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

DRAFT

INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

MEDIANS & PEDESTRIAN REFUGE ISLANDS

$ $ $



DESCRIPTION

A median barrier is a physical barrier or divider located in the center median of a roadway, separating opposing traffic flows. Full medians extend across the entire width of the roadway, while partial medians only occupy a portion of the roadway width. Pedestrian refuge islands are raised medians or islands in the center of a roadway that provide a safe waiting area for pedestrians crossing multiple lanes of traffic.

LEVEL OF EFFORT

LOW | MODERATE | **HIGH**

REFERENCE DOCUMENTS

- FHWA, Medians and Pedestrian Refuge Islands in Urban and Suburban Areas
- FHWA, Federal Highway Administration University Course on Bicycle and Pedestrian Transportation

SAFETY BENEFITS AND IMPACTS

- Median barriers serve to prevent head-on collisions, reduce the likelihood of crossover crashes, and improve overall road safety by providing a physical separation between traffic streams.
- Medians and pedestrian refuge islands enhance pedestrian safety by allowing people to cross one direction of traffic at a time, reducing the exposure to vehicle conflicts and improving visibility for both pedestrians and drivers. Medians can especially be beneficial for crossings at non-intersection locations.
- According to the Crash Modification Factor (CMF) Clearinghouse, medians can reduce crashes by up to 31%.
- Medians with marked crosswalks have shown a 46% reduction in pedestrian crashes, while pedestrian refuge islands have a 50% reduction in pedestrian crashes.

DESIGN GUIDANCE & CONSIDERATIONS

- Median barriers are typically constructed of concrete or other sturdy materials.
- Medians/pedestrian refuge islands should be at least 6 feet wide, but preferably 8 feet wide and include detectable warnings for pedestrian comfort and accessibility.

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

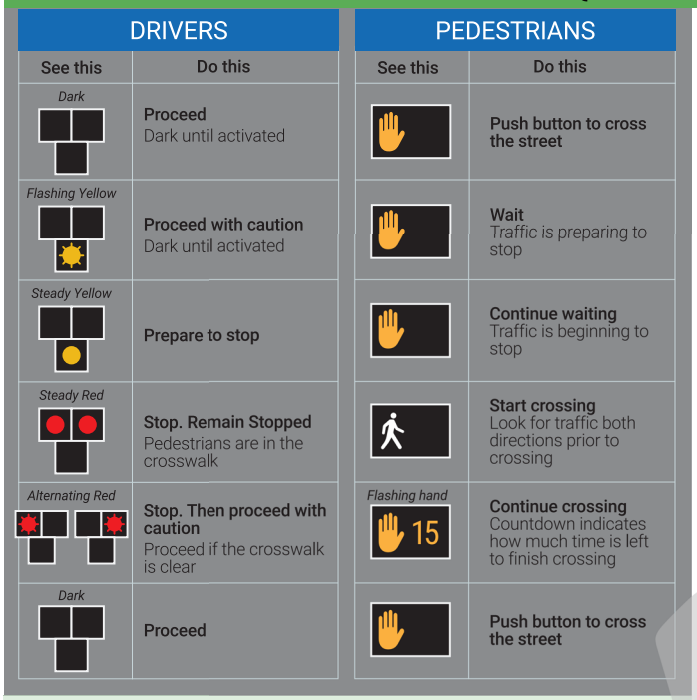
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INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

$ $ $

PEDESTRIAN HYBRID BEACON (HAWK)



DESCRIPTION

A pedestrian hybrid beacon, also known as a High-Intensity Activated Crosswalk (HAWK) beacon, is a pedestrian-activated traffic signal designed to facilitate safe pedestrian crossings at mid-block locations or unsignalized intersections. When activated by a pedestrian, the beacon displays a sequence of flashing yellow, solid yellow, and solid red lights to alert drivers to stop and yield to pedestrians. Pedestrian hybrid beacons provide controlled crossing opportunities for pedestrians while minimizing traffic delays and improving safety at locations with high pedestrian volumes or limited visibility.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- FHWA, Pedestrian Hybrid Beacons

SAFETY BENEFITS AND IMPACTS

- Pedestrian Hybrid Beacons (HAWKs) assign the right of way and provide positive stop control, especially at non-intersection locations. They also allow motorists to proceed once the pedestrian has cleared their side of the travel lane(s), reducing vehicle delay.
- According to research from the FHWA, HAWK signals can reduce pedestrian crashes by 55%, and total crashes by 29%, as well as a 15% reduction in serious injuries and fatal crashes.
- According the the Crash Modification Factor (CMF) Clearinghouse, HAWK signals can reduce crashes by 12%.

DESIGN GUIDANCE & CONSIDERATIONS

- The installation of a HAWK beacon must include a marked crosswalk and a pedestrian countdown signal.
- Hawk signals are most appropriate when gaps in traffic are not sufficient to allow pedestrians to cross, or when speed limits exceed 35 miles per hour.
- They are very effective at locations where three or more lanes will be crossed or traffic volumes are above 9,000 annual average daily traffic.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

DRAFT

INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

RECTANGULAR RAPID FLASHING BEACON (RRFB)

$ $ $



DESCRIPTION

A Rectangular Rapid Flashing Beacon (RRFB) is a pedestrian-activated warning device used to alert drivers of the presence of pedestrians at crosswalks or pedestrian crossings. RRFBs consist of rectangular-shaped LED lights that flash rapidly when activated by pedestrians, drawing attention to the crosswalk and prompting drivers to yield, especially at locations with high vehicle speeds or limited visibility.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- FHWA, Rectangular Rapid Flashing Beacons (RRFB)
- FHWA, Highway Traffic Signals

SAFETY BENEFITS AND IMPACTS

- RRFBs alert drivers that people are crossing the street and can reduce crashes between vehicles and pedestrians by increasing driver awareness to a person crossing the road.
- According to the Crash Modification Factor (CMF) Clearinghouse, RRFBs can reduce crashes by up to 69%.

DESIGN GUIDANCE & CONSIDERATIONS

- If there is a pedestrian refuge or other type of median, the RRFB should be installed on the median rather than the far side of the roadway.
- Solar-power panels can be used to eliminate the need for a power source.
- Limit the use of RRFBs for locations with significant pedestrian safety issues, as over-use of RRFB treatments may diminish their effectiveness.
- Install RRFBs with the appropriate pedestrian, school or trail crossing warning sign.
- Other treatments in these locations can be considered, such as curb extensions, green infrastructure, and high-visibility crosswalks.

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

DRAFT

INFRASTRUCTURE

ROUNDABOUT

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

$ $ $



DESCRIPTION

The modern roundabout is an intersection with a circular configuration that safely and efficiently moves traffic. Roundabouts feature channelized, curved approaches that reduce vehicle speed, entry yield control that gives right-of-way to circulating traffic, and counterclockwise flow around a central island that minimizes conflict points. The net result of lower speeds and reduced conflicts at roundabouts is an environment where crashes that cause injury or fatality are substantially reduced.

LEVEL OF EFFORT

LOW | MODERATE | **HIGH**

REFERENCE DOCUMENTS

- FHWA, Roundabouts
- Insurance Institute for Highway Safety (IIHS), Roundabouts

SAFETY BENEFITS AND IMPACTS

- Roundabouts reduce motor vehicle through speeds by forcing motorists to maneuver around the island. As all traffic must maneuver around the island by turning right, left-turn crashes are eliminated and right-turn speeds are reduced.
- According to the Crash Modification Factor (CMF) Clearinghouse, roundabouts can reduce crashes by up to 82%.

DESIGN GUIDANCE & CONSIDERATIONS

- Yielding should be used rather than stop controls.
- Signs should be installed to instruct vehicles to proceed to the right at the roundabout.
- Roundabouts may include shared lane markings (sharrows) to indicate cyclist usage.
- Roundabouts may include bike lanes if space allows.
- Roundabouts may also be used with W11-2, W11-2, S1-1, or W11-15 crossing warning sign.
- Roundabouts may be landscaped with low shrubs or vegetation that does not impede visibility.
- Aprons should be included to accommodate large, heavy vehicles.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

DRAFT

INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

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RUMBLE STRIPS



DESCRIPTION

Rumble strips alert drivers when they cross the roadway edge line or centerline. Center line rumble strips are used on highways to reduce head-on, opposite-direction sideswipe crashes and roadway departure crashes to the left. Shoulder rumble strips and edge line rumble strips are used to reduce roadway departure crashes to the right. Rumble strips are typically used in rural areas for run-off road crash problems but can be used on urban freeways and other urban roads depending on the merits of the road cross-section and surroundings.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- FHWA, Longitudinal Rumble Strips and Stripes
- FHWA, State of The Practice for Shoulder and Center Line Rumble Strip Implementation on Non-Freeway Facilities
- FHWA, Design & Construction

SAFETY BENEFITS AND IMPACTS

- Roadway departure crashes account for more than half of the fatal roadway crashes annually in the United States. Rumble strips are designed to address these crashes by alerting distracted, drowsy, or otherwise inattentive drivers who drift from their lane. They are most effective when deployed systemically.
- According to the Crash Modification Factor (CMF) Clearinghouse, rumble strips can reduce crashes by up to 22%.
- Center line rumble strips have been shown to reduce head-on fatal and injury crashes on two-lane rural roads by 44% to 64%; shoulder rumble strips reduced single vehicle, run-off-road fatal and injury crashes on two-lane rural roads by 13% to 51%.

DESIGN GUIDANCE & CONSIDERATIONS

- Typical milled rumble strip widths are 5 to 7 inches with 12-inch spacing and approximately 3/16-inch depth.
- Raised rumble strips are typically 2- to 12-inch wide rounded or rectangular markers or strips that adhere to new or existing pavements.
- Centerline rumble strips should be placed between two centerlines.
- When selecting locations, potential noise impacts to residents and businesses should be considered.

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	**On Major Roads**	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	**On Rural Roads**

DRAFT

INFRASTRUCTURE

STREET LIGHTING

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

$ $ $



DESCRIPTION

Street lighting and lighting at the pedestrian scale help people walking on sidewalks and crosswalks by making pedestrians more visible to drivers. It is particularly important at locations where walking space is restricted, ambient light may be blocked, and/or pedestrian traffic is more separated from the surrounding context.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- FHWA, Lighting Handbook
- FHWA, Lighting
- DarkSky, Advancing Responsible Outdoor Lighting
- The Lighting Authority, Light at Night

SAFETY BENEFITS AND IMPACTS

- Street lighting provides benefits for all road users, including greater visibility. Lighting increases pedestrian safety on pedestrian crossings and improves their comfort level. It also increases driver awareness, reduces the impacts of disability glare from approaching headlights or off-roadway lighting, and it might improve yielding and compliance with traffic control devices.
- According to the Crash Modification Factor (CMF) Clearinghouse, street lighting can reduce crashes by up to 42%.
- Lighting can lead to a 23% reduction in crashes involving injury.

DESIGN GUIDANCE & CONSIDERATIONS

- 3000K shielded LED lights should be used wherever possible.
- Lighting should be consistent and uniform.
- The placement of existing buildings and trees should be considered to reduce spillover.
- Lighting should be installed in accordance with Illuminating Engineering Society and DarkSky guidelines.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

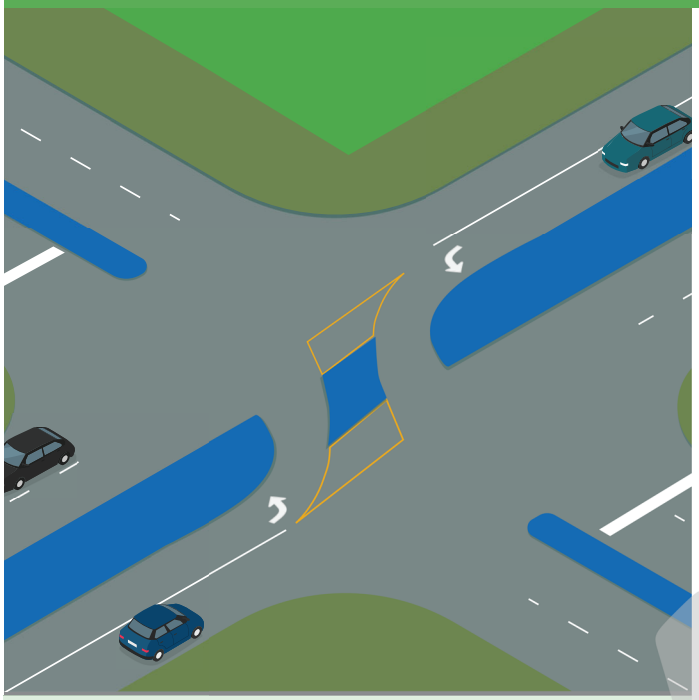
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INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

TURNING MOVEMENT RESTRICTIONS

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DESCRIPTION

Turning movement restrictions are a type of access management strategy used to improve the safety of stop-controlled intersections and driveways. This includes signs, pavement markings, or geometries that prohibit left-turning movements or a right-turn on red.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

SAFETY BENEFITS AND IMPACTS

- Restricted and prohibited turn movements reduce the number of conflict points at intersections, which are generally known to reduce crash risk.
- Turning movement restrictions have little effect on through traffic volumes but may shift turning volumes downstream to the next available turn.
- According to the FHWA, implementing these restrictions can reduce total crashes by up to 45% and intersection-related crashes by as much as 68%.

DESIGN GUIDANCE & CONSIDERATIONS

- One type of turning movement restriction is a right-in/right-out (RIRO) restriction; RIRO restrictions limit the turning movements to right turns only for traffic at an intersection and traffic seeking to join the main flow of traffic. This is usually done by installing a curbed median along the centerline of the road.
- Turning movement restrictions should be installed by assessing property access needs, site-specific needs, and balancing those with safety.

REFERENCE DOCUMENTS

- FHWA, Safety Evaluation of Turning Movement Restrictions at Stop-Controlled Intersections

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

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INFRASTRUCTURE

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

$ $ $

WIDER EDGE LINES



DESCRIPTION

Wider edge lines enhance the visibility of travel lane boundaries compared to traditional edge lines. Edge lines are considered "wider" when the marking width is increased from the minimum normal line width of 4 inches to the maximum normal line width of 6 inches. Wider edge lines are most effective in reducing crashes on rural two-lane highways, especially for single-vehicle crashes.

LEVEL OF EFFORT

LOW | MODERATE | HIGH

REFERENCE DOCUMENTS

- FHWA, Wider Edge Lines

SAFETY BENEFITS AND IMPACTS

- Wider edge lines increase drivers' perception of the edge of the travel lane and can provide a safety benefit to all facility types (e.g., freeways, multilane divided and undivided highways, two-lane highways) in both urban and rural areas.
- According to the FHWA, wider edge lines can reduce crashes up to 37% for non-intersection, fatal, and injury crashes on rural, two-lane roads, and 22% for fatal and injury crashes on rural freeways.
- According to the Crash Modification Factor (CMF) Clearinghouse, installing wider edge lines can reduce crashes by up to 17.5%.

DESIGN GUIDANCE & CONSIDERATIONS

- Wider edge lines can be implemented using existing equipment during maintenance procedures like re-striping and resurfacing, with the only cost increase being the additional material.
- Wider edge lines should be implemented using a systemic approach based on roadway departure crash risk factors, including: pavement and shoulder widths, presence of curves, traffic volumes, and history of nighttimes crashes.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

DRAFT

BEHAVIORAL & OPERATIONAL

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

$ $ $

ROAD SAFETY AUDITS (RSA)



DESCRIPTION

Roadway Safety Audits (RSAs) are formal evaluations of existing or planned roads conducted by an independent, multidisciplinary team to identify potential safety issues and recommend improvements. By proactively addressing risks for all road users, RSAs help reduce crash rates, enhance road design, and improve overall traffic safety.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- FHWA, Road Safety Audit Guidelines
- FHWA, Implementation of Road Safety Audits
- FDOT, Safety Analysis Guidebook

SAFETY BENEFITS AND IMPACTS

- By proactively addressing risks for all road users, RSAs help reduce crash rates, enhance road design, and improve overall traffic safety.
- According to the FHWA, a number of major studies from the United Kingdom, Denmark, New Zealand and Jordan quantify the benefits of RSAs in different ways; however, all report that RSAs are relatively inexpensive to conduct and are highly cost effective in identifying safety enhancements and reducing crashes.
- An example of U.S. data on the quantitative safety benefits of RSAs conducted on existing roads comes from the New York DOT, which reports a 20% to 40% reduction in crashes at more than 300 high-crash locations that had received surface improvements and had been treated with other low-cost safety improvements suggested by RSAs.

GUIDANCE & CONSIDERATIONS

- RSAs should be performed by a multi-disciplincary team independent of the project.
- RSAs should consider all potential road users and should account for road user capabilities and limitations.
- The team conducting the RSA should generate a RSA report. A formal response report is an essential element of the assessment.

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

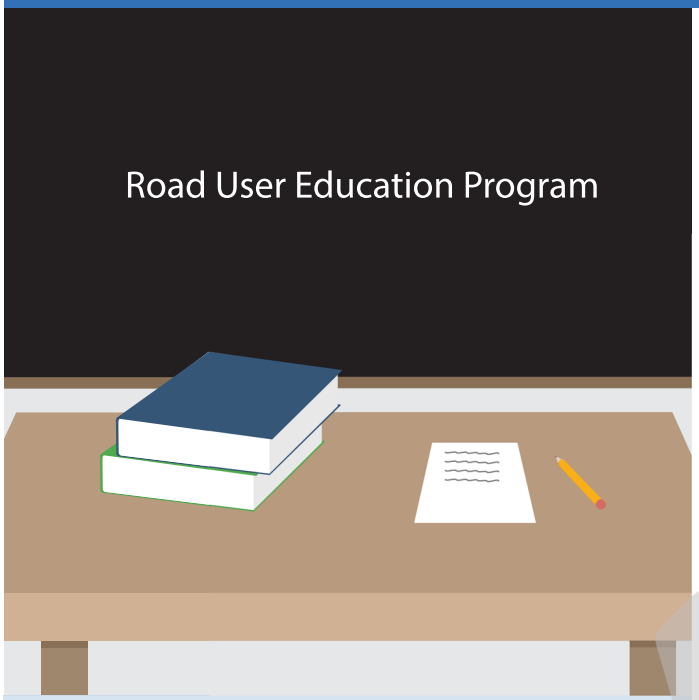
DRAFT

BEHAVIORAL & OPERATIONAL

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

$ $ $

ROAD USER EDUCATION PROGRAMS



DESCRIPTION

Education programs and skill evaluations enhance road safety by reinforcing safe driving and road use practices and allowing users to self-assess and improve their skills, leading to a reduction in crash risk and better decision-making on the road.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- FHWA, Driver Education and Training
- US DOT, What Is the Effect of Driver Education Programs on Traffic Crash and Violation Rates?
- NLM, Is driver education contributing towards road safety?

SAFETY BENEFITS AND IMPACTS

- Education programs aim to improve driving behavior by increasing awareness of traffic laws and consequences, with the goal of reducing violations and crashes.
- A 2021 NIH review found that while education improved driving skills and reduced some offenses, it had little impact on crash or injury rates.

GUIDANCE & CONSIDERATIONS

Road user education programs can include:

- Driving techniques, such as the safest way to change lanes and make turns at intersections, maintaining a safe driving distance, the effects of medication on driving, and reducing distractions such as cell phone use.
- Pedestrian and cyclist school-based curriculums on safe crossings, helmet use, visibility, and bike handling. Programs like Safe Routes to School offer in-class and on-bike training.
- Practical bicycling riding skills, including how to navigate in traffic, signal turns, and bike lanes.

Course curriculums should be developed in collaboration with experts in mobility, aging, technology, and vehicle and driver safety.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

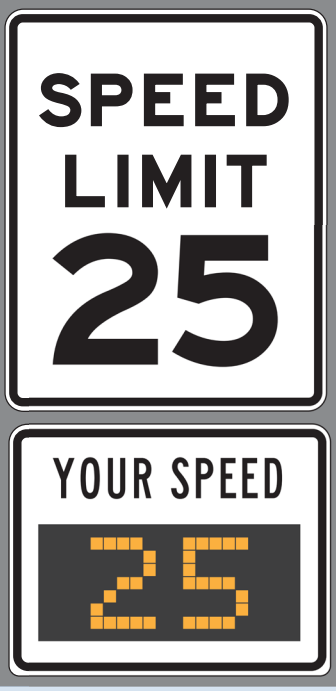
DRAFT

BEHAVIORAL & OPERATIONAL

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

$ $ $

SPEED LIMIT REDUCTION



DESCRIPTION

Speed limit reduction involves lowering the maximum allowable speed for vehicles on a particular roadway segment or within a specific area. This traffic management strategy is implemented to improve safety, reduce the risk of crashes, minimize the severity of collisions, and promote compliance with speed limits. Speed limit reductions may be based on factors such as road design, traffic volume, pedestrian activity, and crash history.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- NCHRP, Posted Speed Limit Setting Procedure and Tool
- FHWA, USLIMITS2
- Vision Zero Network, Preventing Unsafe Speeds

SAFETY BENEFITS AND IMPACTS

- Reduced speed limits create a more predictable environment for all road users, reduce the likelihood of crashes, and in the event of a crash, reduce the likelihood of fatalities and serious injuries.
- According to the Crash Modification Factor (CMF) Clearinghouse, reducing speed limits can reduce crashes by up to 32%.

DESIGN GUIDANCE & CONSIDERATIONS

- Speed limit reduction should be complemented by physical design features such as narrower lanes, roundabouts, speed humps, medians, and protected bike lanes to deter high speeds. Self-enforcing street design embeds physical cues to encourage safe driving.
- A speed limit study should be conducted to determine the appropriate speed limit

WHERE IT WORKS

At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

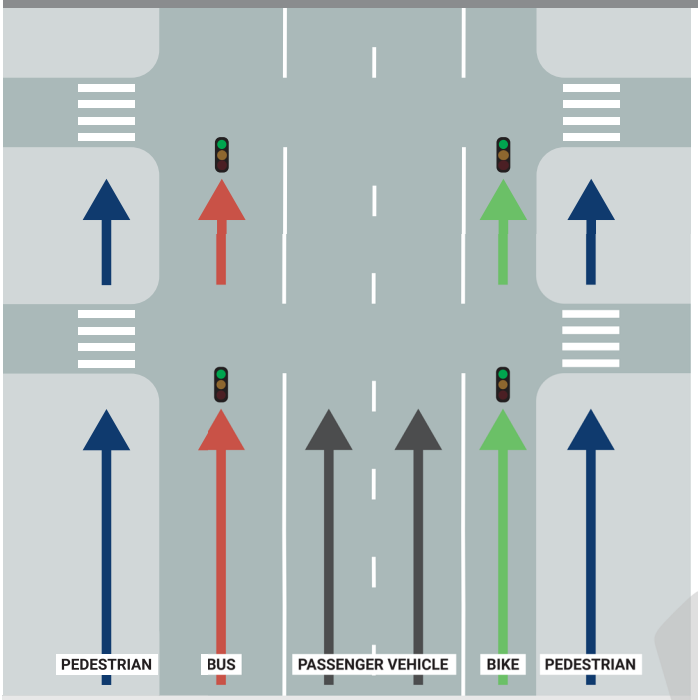
DRAFT

SIGNAL TIMING STRATEGIES

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

$ $ $

COORDINATED SIGNAL TIMING



DESCRIPTION

Coordinated signal timing optimizes traffic flow by synchronizing traffic signals along a corridor, which reduces congestion and minimizes stop-and-go conditions. This improves safety by facilitating more predictable interactions for road users and harmonizing signals for safer speeds with fewer interruptions.

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

SAFETY BENEFITS AND IMPACTS

- Coordinated signal timing encourages drivers to travel at the speed limit of the signal progression and discourages speeding through a yellow light.
- Case studies show it is sometimes possible to substantially reduce speeding opportunities with little or no increase in vehicular delay by lowering cycle length, lowering progression speed, or dividing an arterial into smaller “coordination zones” with each zone having its own cycle length.

DESIGN GUIDANCE & CONSIDERATIONS

- Coordinated signal timing should be considered in the overall context of the street. Block length, crossing distance, and traffic volume are relevant to the selection of signal progression speeds.
- Coordinated signal timing is typically applied on corridors with closely spaced intersections (1/4 mile or less), and where there is a desire for platooning.
- Cross-street progressions should be included in signal timing planning, especially for streets with high transit or total volume.

REFERENCE DOCUMENTS

- Journal of the Transportation Research Board, Using Traffic Signal Control to Limit Speeding Opportunities on Bidirectional Urban Arterials
- FHWA, Traffic Signal Timing Manual

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

DRAFT

SIGNAL TIMING STRATEGIES

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

LEADING PEDESTRIAN INTERVALS

$ $ $



DESCRIPTION

A leading pedestrian interval (LPI) gives pedestrians the opportunity to enter the crosswalk at an intersection 3-7 seconds before vehicles are given a green indication. This allows pedestrians to better establish their presence in the crosswalk before vehicles have priority to turn right or left.

LEVEL OF EFFORT

LOW | MODERATE | HIGH

REFERENCE DOCUMENTS

- FHWA, Leading Pedestrian Interval

SAFETY BENEFITS AND IMPACTS

- LPIs improve safety by increasing the visibility of pedestrians and cyclists, increasing motorist yielding, and increasing crossing time for pedestrians and cyclists.
- According to the Crash Modification Factor (CMF) Clearinghouse, LPI can reduce crashes by up to 51%.

DESIGN GUIDANCE & CONSIDERATIONS

- LPIs can be accompanied by high-visibility crosswalk markings, curb ramps, accessible pedestrian signals, and “No Right Turn on Red” signs (MUTCD R10-11).
- LPIs are typically applied based on crash history and where both pedestrian volumes and turning volumes are high enough to warrant an additional dedicated interval for pedestrian-only traffic.
- When left-turn phases are present, additional consideration will be necessary for an LPI. This could include having crosswalks on opposite sides of the street show the “Walk” sign at different times.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

DRAFT

ENFORCEMENT

INTERSECTIONS | ROADWAY DEPARTURES | SAFER SPEEDS | VULNERABLE ROAD USERS
OLDER DRIVERS | DISTRACTED DRIVING | IMPAIRED DRIVING | BEHAVIOR

HIGH-VISIBILITY SPEED ENFORCEMENT PROGRAMS

$ $ $



DESCRIPTION

High-visibility enforcement involves the proactive and visible enforcement of traffic laws by law enforcement agencies. This approach utilizes marked police vehicles, officers in highly visible locations, and public awareness campaigns to deter traffic violations, promote compliance with traffic regulations, and enhance road safety through increased enforcement presence

LEVEL OF EFFORT

LOW | **MODERATE** | HIGH

REFERENCE DOCUMENTS

- NHTSA, High-Visibility Enforcement
- NIJ, Effect of High-Visibility Enforcement on Motor Vehicle Crashes

SAFETY BENEFITS AND IMPACTS

- The objective of high-visibility speed enforcement is to convince the driving public that speeding is likely to be detected and therefore not worth the risk of receiving fines, points, or other punishment. As a result, a successful high-visibility speed enforcement program can reduce speeding and aggressive driving practices.
- A report from the NIJ found that high-visibility speed enforcement can reduce crashes by up to 33%.

GUIDANCE & CONSIDERATIONS

- Enforcement actions for speeding violations should be fair, consistent with local and State statutes, and taken in the interest of preventing traffic crashes.
- Correspondingly, locations with a demonstrable speeding and heightened crash risk are most recommended for focused enforcement activities.

WHERE IT WORKS			
At Signalized Intersections	At Unsignalized Intersections	On Major Roads	On Local Roads
Near Parks/ Schools/ Safety Zones	As Drainage/ Stormwater Capture	In Constrained Right of Way	On Rural Roads

DRAFT

PRIORITIZING SAFETY PROJECTS

The Collier MPO considers safety as a project evaluation factor in prioritizing projects for inclusion in the Long Range Transportation Plan's Cost Feasible Plan (CFP). The MPO incorporates safety as an evaluation criterion in its annual project prioritization process for programming Transportation Management Area (TMA) Surface Transportation Program – Urban (SU) funds.

The High Injury Network (HIN) will be used as a critical data layer to assess current transportation system needs and strategically align safety priorities with long-term regional planning efforts. The MPO will integrate the HIN into its project prioritization process to target investments toward corridors with the highest incidence of severe and fatal crashes. Project scoring will include crash reduction and safety improvement metrics, reinforcing the MPO's commitment to federal safety performance targets and the region's Vision Zero goals.

PLANNING CONSISTENCY

The MPO Board plays a key role in establishing priorities for transportation investments in collaboration with the Florida Department of Transportation (FDOT). The MPO's Long Range Transportation Plan (LRTP) serves as the basis for the annual List of Priority Projects (LOPP) the MPO is required to submit to FDOT District 1 by July 1st of each year. FDOT analyzes the LOPP in combination with the Department's statewide plans and programmatic requirements to develop the District's Five-Year Work Program. Once the State Legislature approves a final budget, FDOT's Work Program is incorporated into the MPO's Five-Year Transportation Improvement Program (TIP). The state compiles all 27 MPO TIPs into the Department's Statewide Transportation Improvement Program (STIP).

The Safety Action Plan serves as an element of the MPO's LRTP, referenced in the Needs and Cost Feasible Plans, which establishes project eligibility for state and federal programmatic funds in addition to discretionary grant funds under the Safe Streets and Roads for All program.

DISCRETIONARY GRANTS – NOTICE OF FUNDING OPPORTUNITY (NOFO)

MPO member governments may submit applications directly to State and Federal governmental agencies in response to NOFOs, without going through the MPO. The MPO will provide a letter of support or help coordinate a regional application upon request, for projects consistent with the Safety Action Plan.

MPO CALL FOR PROJECTS PROCESS – STATE AND FEDERAL PROGRAMMATIC FUNDS

The MPO periodically issues a Call for Projects based on available funding and the Board's investment policies identified in the LRTP and incorporated plans such as the Safety Action Plan, Congestion Management Process (CMP), Bicycle and Pedestrian Master Plan (BPMP), and the County's East of 951 Bridge Plan.

Under the 2045 LRTP, the MPO's annual allocation of Surface Transportation Grant Program – Urban (SU) and Transportation Alternative funds were distributed among five project categories: congestion management, new bridge construction, bicycle and pedestrian infrastructure, safety and long-range planning. MPO staff issued a Call for Projects based on the Board's allocation policy, which operated on a five-year rotation among these categories. Pending MPO Board approval, the 2050 LRTP may expand the use of SU funds to include road capacity enhancement projects. The MPO will continue to issue Calls for Projects on an as-needed basis, with priority given to the current backlog of projects in need of funding.

MPO member governments – Collier County and the incorporated cities of Naples, Marco Island and Everglades City – have the option to submit projects for state and federal programmatic funds. The Call for Projects will specify the number of applications each entity may submit. As a general guide, the MPO has instituted a practice in which each member entity may submit up to one project per jurisdictional area represented by voting membership on the Board. MPO staff may submit one project of regional significance. This results in a total of 10 projects for each Call for Projects. The allocation of projects is as follows:

- 5 projects within the unincorporated County
- 2 projects within the City of Naples
- 1 project in the City of Marco Island
- 1 project in the City of Everglades City (including Chokoloskee and Plantation Island)
- 1 project submitted by MPO staff

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ELIGIBILITY CRITERIA AND PRELIMINARY ASSESSMENT

Projects must align with the All-Modes High Injury Network (HIN) (beginning on page 44) and identified strategies in the Action Plan Implementation Actions matrix (beginning on page 54), and include elements of Complete Streets design, FHWA Proven Safety Counter Measures, or this Action Plan's Countermeasure Toolkit (beginning on page 60).

MPO staff conducts a preliminary review to determine eligibility. Incomplete or improperly submitted projects will not be considered for funding. The preliminary review will include the following baseline criteria:

- **Timeliness:** The submitting agency must confirm that the project can be designed and constructed within the chosen funding cycle.
- **Constructability:** The project must be well-defined, with confirmed right-of-way, and include a complete and accurate cost estimate.
- **Funding Availability:** The submitting agency must demonstrate that sufficient funding is available to cover both the project's costs and any necessary matching funds.

PROJECT RATING AND RANKING

Technical staff on the SAP Steering Committee will review, rate and rank projects based on the evaluation criteria and scoring system developed by the MPO for the Call for Projects. The following criteria and scoring system are provided as a possible starting point:

CRITERIA	POINTS
Tier I HIN – project addresses specific location identified on the Tier I HIN	*10 points*
Tier II HIN – project addresses specific location identified on the Tier II HIN	*5 points*
High Crash Segment or Intersection: Top 10 list (Intersection, Urban, or Rural)	*5 points*
Includes elements from the Implementation Actions matrix, Countermeasure Toolkit, FHWA Proven Safety Countermeasures, or complete streets design	*10 points*
Project meets multiple Action Plan strategies	*5 points*
Project is referenced in multiple MPO or local agency Plans	*5 points*
Local funds are contributed towards meeting project costs	*10 points*
Bonus points determined by committee consensus	*10 points*
	60 max.

DESIGNING SAFER ROADWAYS

Conceptual recommendations were developed for six locations on Collier MPO's High Injury Network to demonstrate how partner entities can use many of the tools highlighted throughout this plan to create safer streets. Additional community engagement and traffic engineering analysis will be required before more detailed designs are developed.

The following pages are organized with one page exploring the crashes and KSI crash types and factors along each roadway segment, followed by a page identifying traffic safety countermeasures for both the short- and long- term.

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IMMOKALEE – MAIN ST

FROM 9TH ST TO NEW MARKET RD

ANNUAL AVERAGE DAILY TRAFFIC	9,800 - 18,900 veh
FUNCTIONAL CLASS	Principal Arterial
FDOT CONTEXT CLASSIFICATION	Urban Low Density
POSTED SPEED	35 MPH
AREA OF PERSISTENT POVERTY	Yes
TRAVEL LANES	4 - 6
PRESENCE OF SHOULDER	Yes
PRESENCE OF SIDEWALK	Yes
PRESENCE OF BIKE LANE	No
JURISDICTION/OWNERSHIP	Immokalee/State

(2019-2023)

311 TOTAL CRASHES

13 TOTAL FATAL AND SERIOUS INJURY (KSI) CRASHES

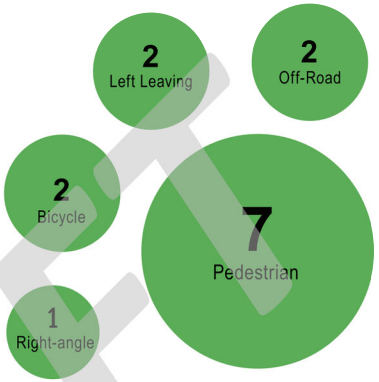
2 FATALITIES

11 SERIOUS INJURIES

8 KSI PEDESTRIAN CRASHES

1 KSI BICYCLIST CRASHES

TYPES OF FATAL AND SERIOUS INJURY (KSI) CRASHES



FATAL AND SERIOUS INJURY (KSI) CONTRIBUTING FACTORS

- **2** Distracted-Driving
- **1** Hit & Run
- **3** Lane-Departure
- **3** Commercial-Motor Vehicle
- **3** Intersection-Related

LEGEND: KSI CRASHES

- Fatal
- Pedestrian
- Bicycle
- Automobile



IMMOKALEE – MAIN ST

FROM 9TH ST TO NEW MARKET RD

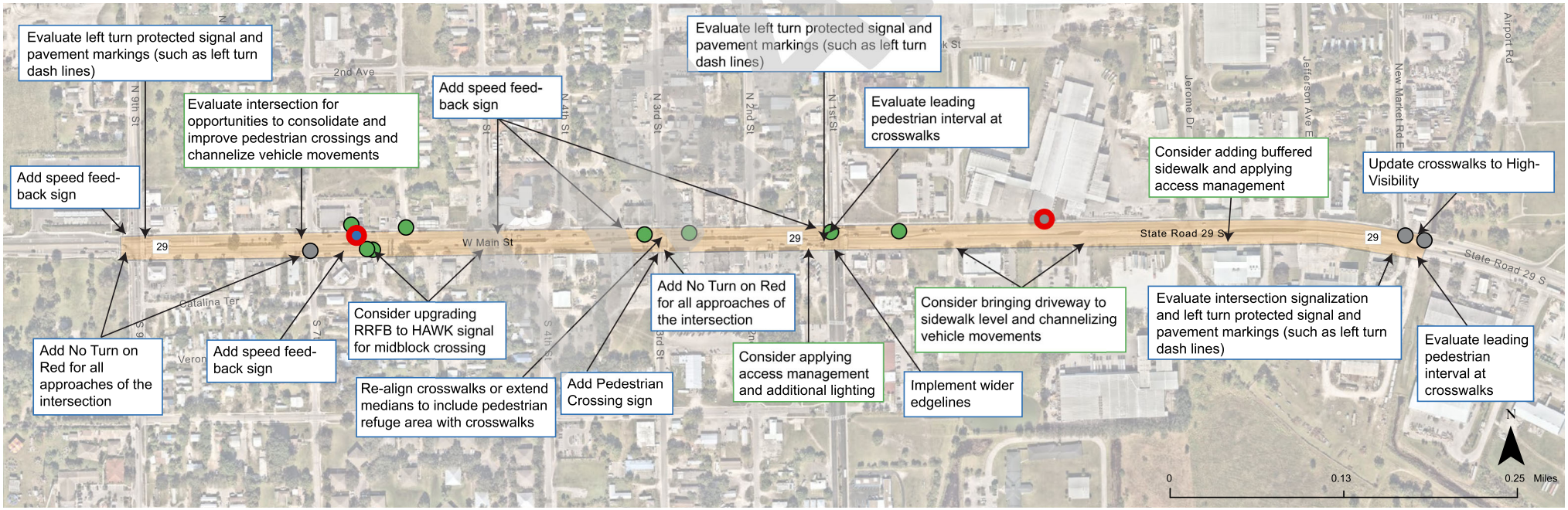
This segment of Immokalee's Main Street extends from 9th Street to New Market Road, where a future truck bypass near the airport is planned. The proposed bypass, known as the Immokalee Loop Road, is expected to begin construction in 2027. The identified corridor includes one of the top-ten High Injury Network (HIN) segments (between 9th Street and 1st Street), and a top HIN intersection at Main Street and New Market Road, as well as additional Tier II HIN segments. Located near several schools, the area has drawn strong interest from the Immokalee Community Redevelopment Agency in enhancing bicycle and pedestrian safety.

SHORT-TERM ACTIONS

Short-term recommendations focus on improving pedestrian safety through signal and marking upgrades. At certain midblock crossings, Rectangular Rapid Flashing Beacons (RRFBs) can be replaced with High-Intensity Activated Crosswalk (HAWK) signals for better visibility. No Turn on Red signs at intersections like Main Street and 9th Street may help reduce crashes. At locations where medians end before the crosswalk, such as Main and 3rd Street, crosswalks can be set back or medians extended to create pedestrian refuge islands. Signal timing along the corridor should be evaluated for Leading Pedestrian Intervals (LPIs), which give pedestrians a head start before vehicles move. Crosswalks throughout the corridor can also be upgraded to high-visibility markings to improve driver awareness and enhance pedestrian safety.

LONG-TERM ACTIONS

Longer-term recommendations include exploring the extension of a buffered sidewalk, which provides separation from traffic through features like landscaping, grass, or street furniture, along the eastern portion of the segment. The corridor may also benefit from access management, such as reducing or consolidating driveways, to limit vehicle entry and exit points and reduce conflicts with pedestrians and cyclists. At the intersection of Main Street and 7th Street, improvements should be evaluated to support safer vehicle and pedestrian movements. This could include adding crosswalks or relocating the nearby midblock crossing to the intersection to better match driver expectations.Lighting could be assessed for the entire segment.



NAPLES-IMMOKALEE RD

FROM US 41/TAMIAMI TRL TO AIRPORT RD

ANNUAL AVERAGE DAILY TRAFFIC	59,000 veh
FUNCTIONAL CLASS	Minor Arterial
FDOT CONTEXT CLASSIFICATION	Urban Low Density
POSTED SPEED	45 MPH
AREA OF PERSISTENT POVERTY	No
TRAVEL LANES	5 - 8
PRESENCE OF SHOULDER	Yes
PRESENCE OF SIDEWALK	Yes, partial
PRESENCE OF BIKE LANE	No
JURISDICTION/OWNERSHIP	Naples/County

(2019-2023)

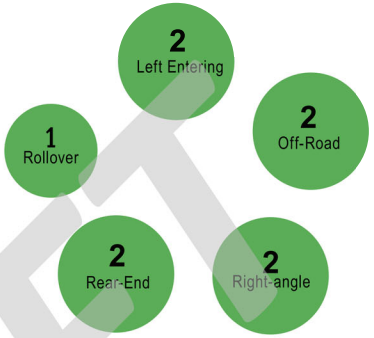
825 TOTAL CRASHES

9 TOTAL FATAL AND SERIOUS INJURY (KSI) CRASHES

1 FATALITY

8 SERIOUS INJURIES

TYPES OF FATAL AND SERIOUS INJURY (KSI) CRASHES



FATAL AND SERIOUS INJURY (KSI) CONTRIBUTING FACTORS

- **2** Distracted-Driving
- **1** Commercial Motor Vehicle
- **4** Lane-Departure
- **4** Intersection-Related
- **1** Alcohol Related

LEGEND: KSI CRASHES

- Fatal
- Pedestrian
- Bicycle
- Automobile



NAPLES-IMMOKALEE RD

FROM US 41/TAMIAMI TRL TO AIRPORT RD

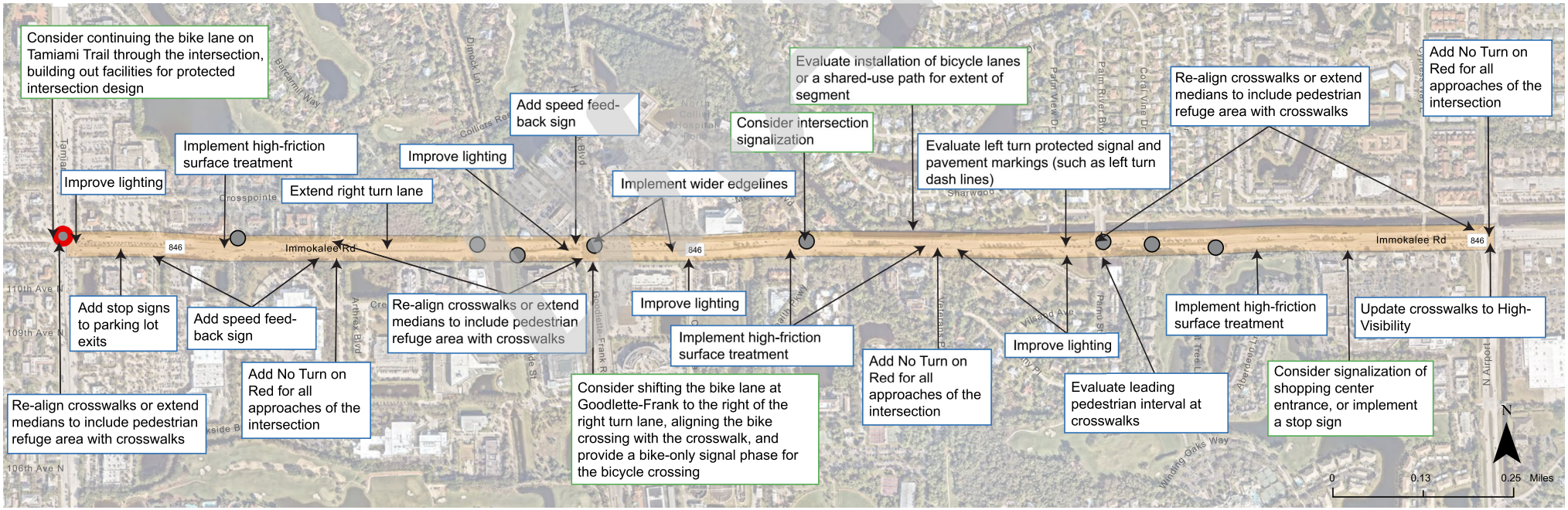
This segment of Immokalee Road in Naples stretches from US 41/Tamiami Trail on the west to Airport Road on the east. It includes both Tier I and Tier II High Injury Network (HIN) segments and intersections. A major bus transfer point is located on the south side of Immokalee Road between US 41 and Goodlette-Frank Road. The corridor is also near NCH North Naples Hospital, several shopping plazas, and the Cocohatchee Creek Preserve. The corridor sees frequent eBike use as a key commuter route. Residents living on both sides of Immokalee Road have expressed a strong desire for safer pedestrian and bicycle crossings in the area.

SHORT-TERM ACTIONS

Short-term recommendations aim to improve safety by encouraging slower speeds and reducing lane departure. Strategies include wider edgelines, high-friction surface treatments, upgraded lighting, and speed feedback signs. At major intersections like Immokalee Road and Airport Road, No Turn on Red signs, protected left-turn signals, and clear pavement markings can help reduce turning-related crashes. Where medians end before crosswalks, such as at Immokalee Road and Parnu Street, crosswalks can be set back or medians extended to create pedestrian refuge islands. Signal timing should be reviewed to add Leading Pedestrian Intervals (LPIs), giving pedestrians a head start before vehicles move. Upgrading all crosswalks along the corridor to high-visibility markings will also improve driver awareness and overall pedestrian safety.

LONG-TERM ACTIONS

Longer-term recommendations include enhancing bicycle facilities along the corridor, such as extending the existing bike lanes on Tamiami Trail and Goodlette-Frank Road through the intersection with Immokalee Road. This should follow best practices for protected intersection design, incorporating elements like setback crossings, corner safety islands, crosswalk-aligned bike lane crossings, dedicated bike signal phases, and physical separation from traffic to reduce conflicts and improve safety for all users. The entire segment should also be evaluated for the addition of bicycle lanes or a shared use path. Additionally, intersections such as Medical Boulevard and Immokalee Road, as well as the shopping center at the western end of the corridor, may be candidates for future signalization to support safer, more predictable movements.



NAPLES – GOLDEN GATE PKWY

FROM US 41/TAMIAMI TRL TO VINLAND DR

ANNUAL AVERAGE DAILY TRAFFIC	24,000-57,500 veh
FUNCTIONAL CLASS	Minor Arterial
FDOT CONTEXT CLASSIFICATION	Urban Low Density
POSTED SPEED	45 MPH
AREA OF PERSISTENT POVERTY	No
TRAVEL LANES	6 - 7
PRESENCE OF SHOULDER	Yes
PRESENCE OF SIDEWALK	Yes
PRESENCE OF BIKE LANE	No
JURISDICTION/OWNERSHIP	Naples/County

(2019-2023)

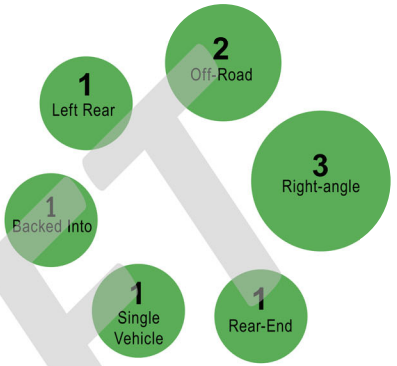
407 TOTAL CRASHES

9 TOTAL FATAL AND SERIOUS INJURY (KSI) CRASHES

9 SERIOUS INJURIES

1 KSI BICYCLIST CRASH

TYPES OF FATAL AND SERIOUS INJURY (KSI) CRASHES



FATAL AND SERIOUS INJURY (KSI) CONTRIBUTING FACTORS

2 Distracted-Driving

1 Alcohol Related

1 Lane-Departure

7 Intersection-Related

LEGEND: KSI CRASHES

Fatal | Pedestrian | Bicycle | Automobile



NAPLES – GOLDEN GATE PKWY

FROM US 41/TAMIAMI TRL TO VINLAND DR

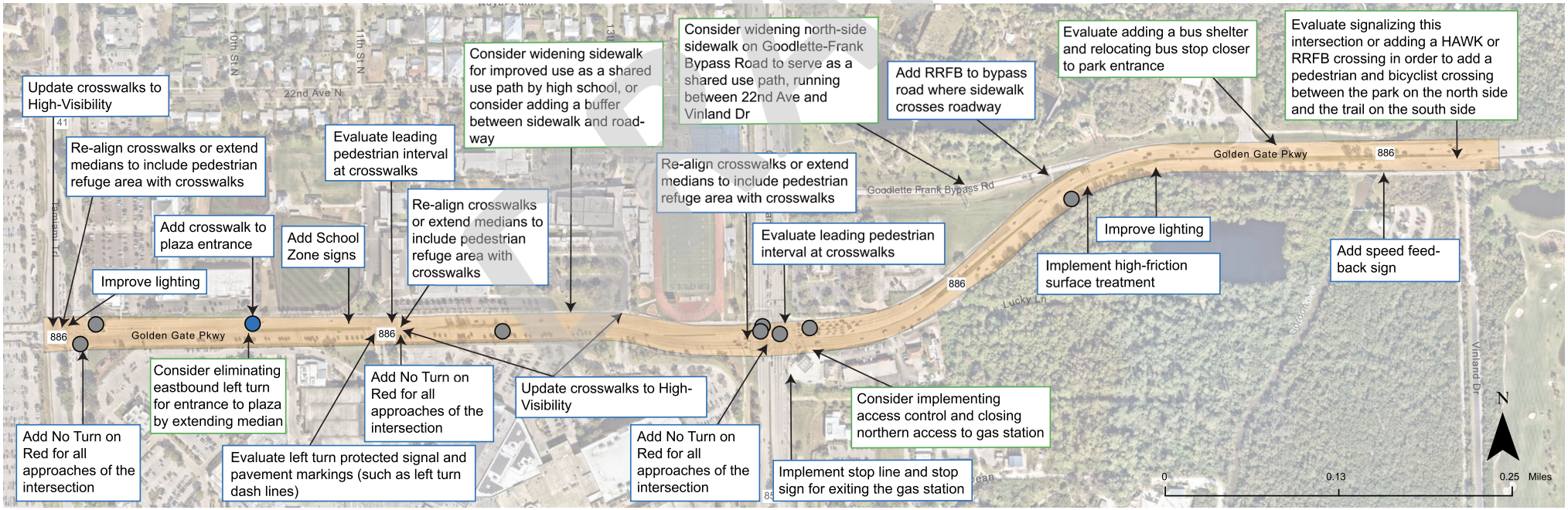
This segment, located in Naples along Golden Gate Parkway between US 41 / Tamiami Trail to the west and the Gordon River Greenway access point to the east, includes both Tier I and Tier II High Injury Network (HIN) segments and intersections. Notably, the intersection of Golden Gate Parkway and Goodlette-Frank Road ranks among the top ten HIN intersections. With key destinations like the Gordon River Greenway and Freedom Park in the east and Naples High School near the west end at Goodlette-Frank Road, the area has strong potential for increased pedestrian and bicycle activity. Improving safety measures along this corridor could help support and encourage more active transportation use.

SHORT-TERM ACTIONS

Short-term recommendations include increasing pedestrian visibility through improving lighting, enhancing crosswalks to be high-visibility, adding crosswalks across plaza entrances, and adding new School Zone signs. At all major intersections, such as the crossing of Goodlette-Frank Road, where medians end before the crosswalk, crosswalks can be set back or medians extended to create pedestrian refuge islands. Signal timing along the corridor should be evaluated for Leading Pedestrian Intervals (LPIs), which give pedestrians a head start before vehicles move. No Turn on Red signs at larger intersections, like Golden Gate Parkway and US 41, and left-turn protected signal phasing and pavement markings, may help reduce turning crashes.

LONG-TERM ACTIONS

Longer-term recommendations include widening the sidewalk and expanding the buffer between the sidewalk and roadway with grass or landscaping to support a shared-use path, especially near the school. Pedestrian and cyclist access to the Gordon River Greenway and Freedom Park can be improved through a signalized intersection or pedestrian beacon near Vinland Drive, safer connections to the bypass road, and a wider, continuous shared-use path. As an alternative to traveling along Golden Gate Parkway, the sidewalk on the north side of the adjacent Goodlette-Frank Bypass Road could be widened for shared use by pedestrians and cyclists. Extending this path from the bypass to Vinland Drive would create a continuous connection between 22nd Avenue, which has lower traffic volumes, and the Greenway. The corridor also includes multiple driveways. Consolidating them would reduce vehicle and pedestrian conflict points and improve safety.



NAPLES – US 41/TAMIAMI TRL

FROM 9TH ST TO DAVIS BLVD/SANDPIPER ST

ANNUAL AVERAGE DAILY TRAFFIC	36,000-42,000 veh
FUNCTIONAL CLASS	Principal Arterial
FDOT CONTEXT CLASSIFICATION	Urban Low Density
POSTED SPEED	30 MPH
AREA OF PERSISTENT POVERTY	Yes
TRAVEL LANES	6 - 8
PRESENCE OF SHOULDER	No
PRESENCE OF SIDEWALK	Yes (no buffer)
PRESENCE OF BIKE LANE	Yes
JURISDICTION/OWNERSHIP	Naples/State

(2019-2023)

400 TOTAL CRASHES

10 TOTAL FATAL AND SERIOUS INJURY (KSI) CRASHES

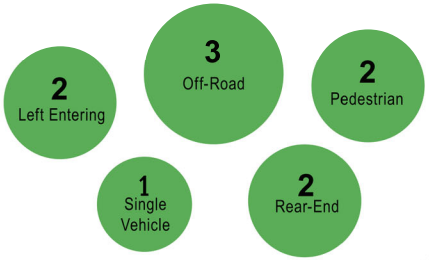
0 FATALITIES

10 SERIOUS INJURIES

1 KSI PEDESTRIAN CRASHES

2 KSI BICYCLIST CRASHES

TYPES OF FATAL AND SERIOUS INJURY (KSI) CRASHES



FATAL AND SERIOUS INJURY (KSI) CONTRIBUTING FACTORS

- 1 Distracted-Driving
- 1 Hit and Run
- 1 Lane-Departure
- 1 Drug-Related
- 1 Alcohol-Related
- 1 Speed-Related
- 1 Aggressive Driving
- 8 Intersection-Related

LEGEND: KSI CRASHES

Fatal · Pedestrian · Bicycle · Automobile



NAPLES - US 41/TAMIAMI TRL

FROM 9TH ST TO DAVIS BLVD/SANDPIPER ST

This segment is in Naples on US41(Tamiami Trail and 5th St S) between 9th St S to the west and the Davis Boulevard/ Sandpiper Street intersection to the east. This segment includes one of the top ten HIN segments (between 9th St S and Goodlette-Frank Rd), as well one of the top ten HIN intersections (Tamiami Trail and Goodlette-Frank Rd). This location was identified in the Collier MPO Bicycle and Pedestrian Master Plan as an area in need of improvement. This segment serves pedestrians, bicyclists, and motorists, and supports hospitality workers, eBike commuters, and tourists. The City of Naples determined the need for bike and pedestrian improvements in the area, while the corridor simultaneously undergoes redevelopment, particularly in the triangular Davis/Sandpiper intersection offering planned and in-progress residential developments.

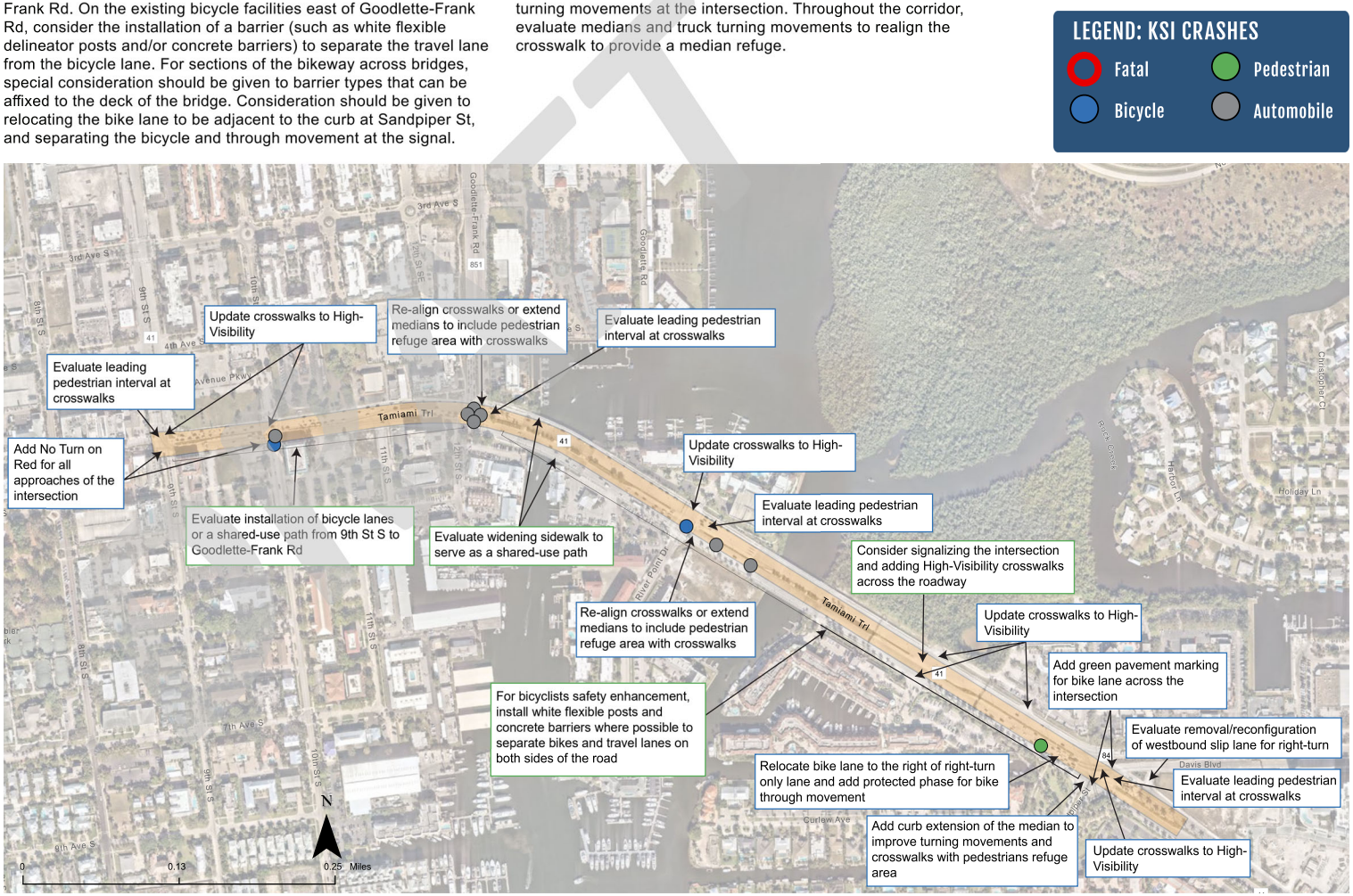
SHORT-TERM ACTIONS

Short-term recommendations include changes to existing signage and pavement markings. At select locations, such as the intersection of Tamiami Trail and 9th St S, implementing no-turn-on-red signage may mitigate crashes. Throughout the corridor, evaluating signal timing cycles to implement leading pedestrian intervals may provide greater visibility to pedestrians at the intersection. Throughout the corridor, all crosswalk markings can be upgraded to high-visibility.

LONG-TERM ACTIONS

Longer-term recommendations include evaluating the extension of bicycle facilities or a shared-use path from 9th St S to Goodlette-Frank Rd. On the existing bicycle facilities east of Goodlette-Frank Rd, consider the installation of a barrier (such as white flexible delineator posts and/or concrete barriers) to separate the travel lane from the bicycle lane. For sections of the bikeway across bridges, special consideration should be given to barrier types that can be affixed to the deck of the bridge. Consideration should be given to relocating the bike lane to be adjacent to the curb at Sandpiper St, and separating the bicycle and through movement at the signal.

Consideration should be given to removal of the slip lane from westbound Davis Blvd onto Tamiami Trail to encourage slower turning movements at the intersection. Throughout the corridor, evaluate medians and truck turning movements to realign the crosswalk to provide a median refuge.



NAPLES – AIRPORT RD

FROM DAVIS BLVD TO US-41/TAMIAMI TRL

ANNUAL AVERAGE DAILY TRAFFIC	34,000 veh
FUNCTIONAL CLASS	Minor Arterial
FDOT CONTEXT CLASSIFICATION	Urban Low Density
POSTED SPEED	45 MPH
AREA OF PERSISTENT POVERTY	Adjacent
TRAVEL LANES	6 - 8
PRESENCE OF SHOULDER	No
PRESENCE OF SIDEWALK	Yes (no buffer)
PRESENCE OF BIKE LANE	No
JURISDICTION/OWNERSHIP	Naples/County

(2019-2023)

449 TOTAL CRASHES

11 TOTAL FATAL AND SERIOUS INJURY (KSI) CRASHES

1 FATALITIES

10 SERIOUS INJURIES

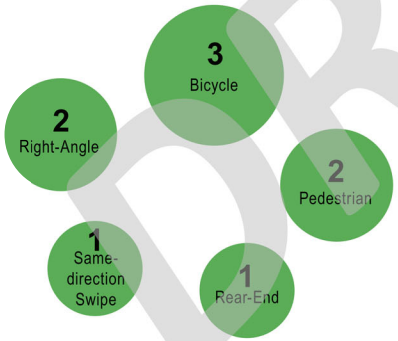
1 KSI PEDESTRIAN CRASHES

4 KSI BICYCLIST CRASHES

TYPES OF FATAL AND SERIOUS INJURY (KSI) CRASHES

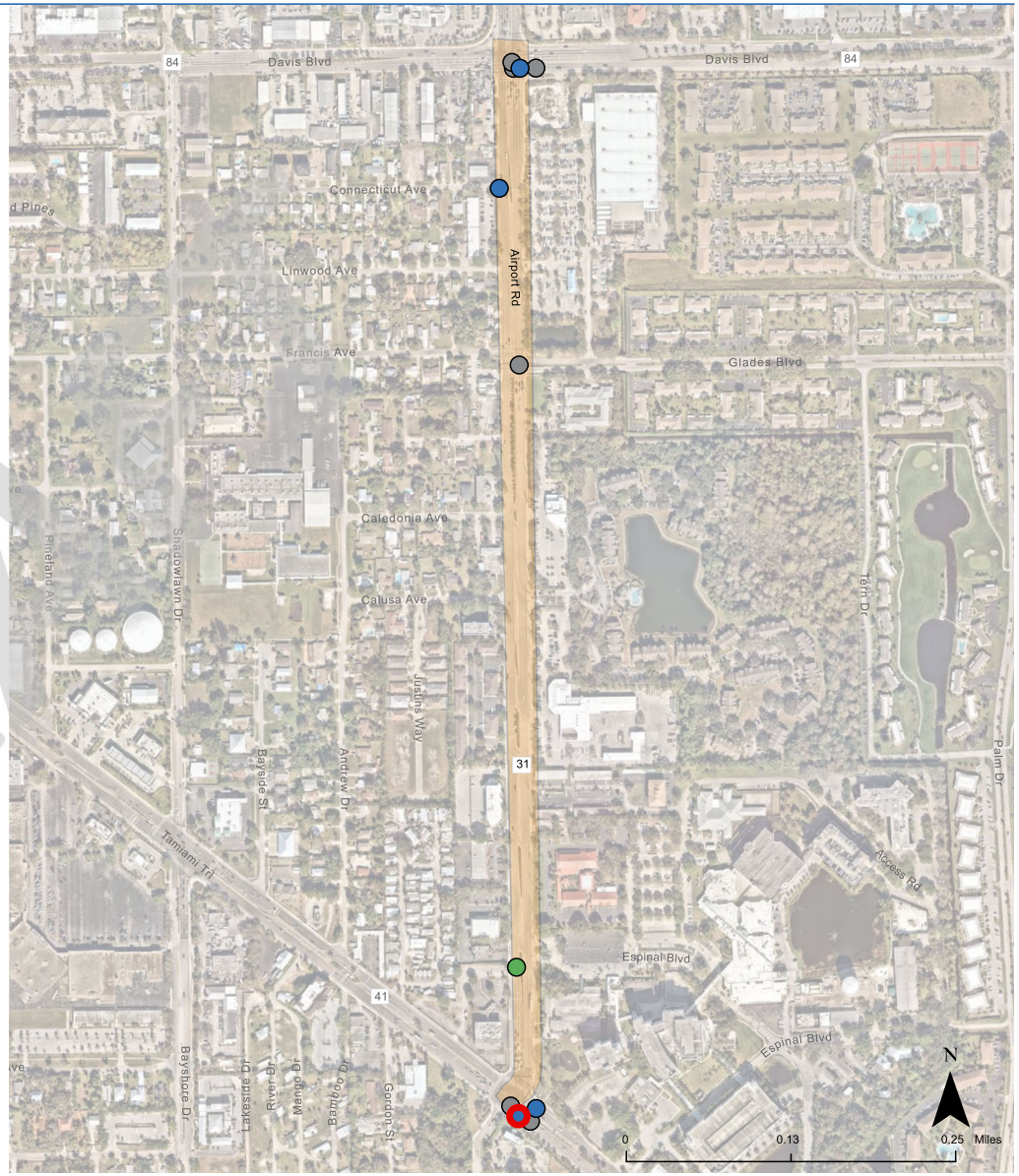
- **2** Distracted-Driving
- **3** Alcohol-Related
- **3** Hit and Run
- **1** Aggressive Driving
- **1** Lane-Departure
- **8** Intersection-Related
- **1** Drug-Related

FATAL AND SERIOUS INJURY (KSI) CONTRIBUTING FACTORS



LEGEND: KSI CRASHES

- Fatal
- Pedestrian
- Bicycle
- Automobile



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NAPLES – AIRPORT RD

FROM DAVIS BLVD TO US-41/TAMIAMI TRL

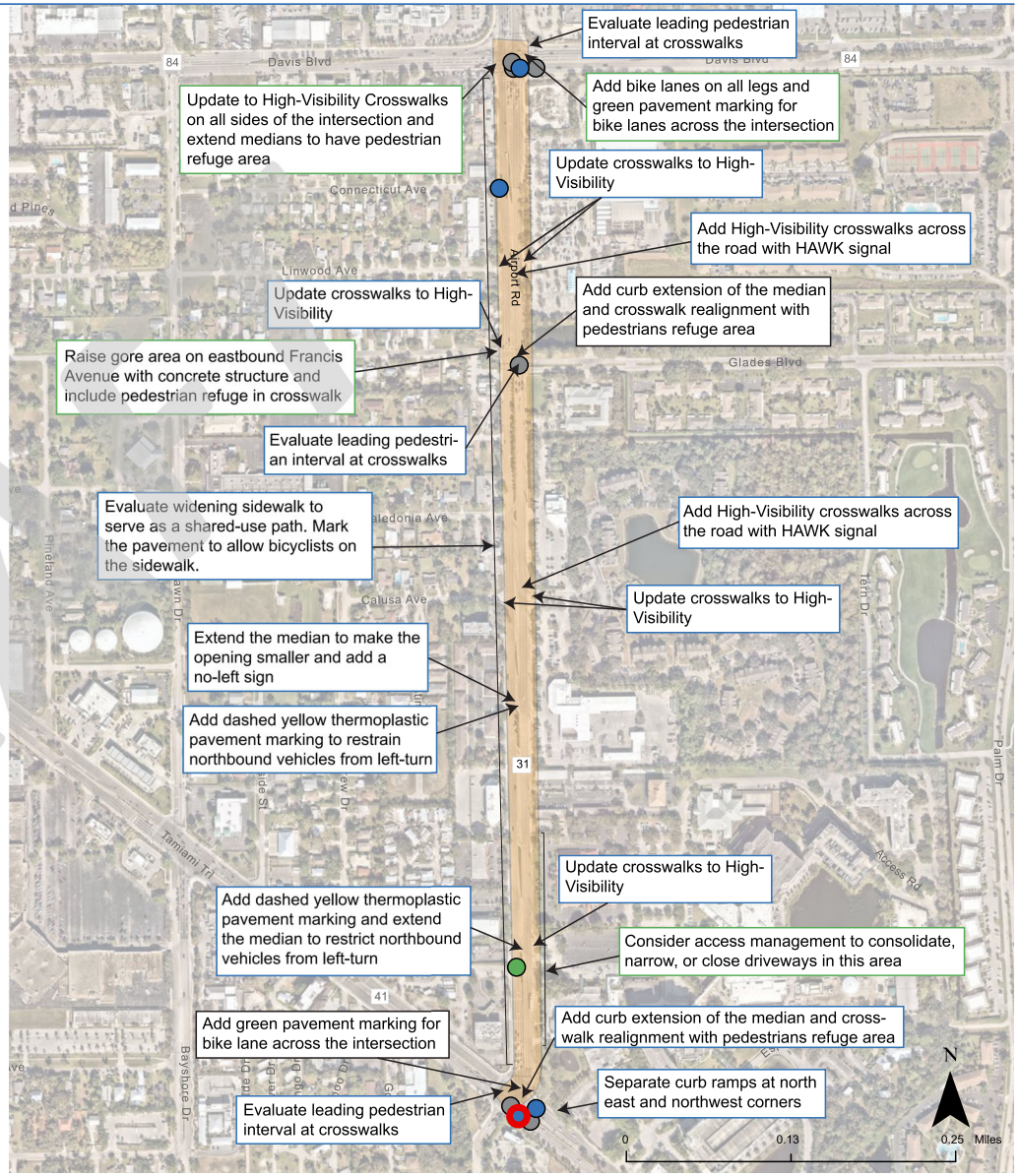
This segment is in Naples on Airport Rd between Davis Boulevard from the north to Tamiami Trail East (US-41) to the south. The road was identified in a 2015 Bike and Pedestrian Road Safety Audit prepared by FDOT at the request of MPO. This location was within the top 40 segments on the High-Injury Network, and contains two of the top ten intersections within the High-Injury Network (Airport Rd and Davis Blvd, and Airport Rd and Tamiami Trail). The road, particularly the east side, is lined with human services organizations. Students attending the Public Vocational High School just north of Davis Boulevard cross the busy segment to get to school. Additionally, Collier County Government Center sits on a corner of the intersection of US41 and Airport Road, which includes a major Collier Area Transit transfer center. The corridor has several bus stops along east and west curbs and there are many pedestrian generating land uses within the corridor such as, apartments, churches, retail stores and restaurants.

SHORT-TERM ACTIONS

Short-term recommendations include updating crosswalks to high-visibility pavement markings and evaluating signal timing to implement leading pedestrian intervals. North of Tamiami Trail, adding pavement markings to extend the median and restrict northbound vehicles from turning left.

LONG-TERM ACTIONS

Long-term recommendations include evaluating median design and crosswalk locations to allow for the median to serve as a pedestrian refuge island. Evaluate the addition of a crosswalk and HAWK signal at Linwood Avenue. Consider upgrades to the bicycle lanes along David Blvd. Evaluate access management to narrow or consolidate the driveway entrances to the Collier County Motor Vehicle & Driver License Office.



LEGEND: KSI CRASHES

- Fatal
- Pedestrian
- Bicycle
- Automobile

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MARCO ISLAND – N COLLIER BLVD & E ELKHAM CIR

INTERSECTION

ANNUAL AVERAGE DAILY TRAFFIC	15,300 veh
FUNCTIONAL CLASS	Major Collector
FDOT CONTEXT CLASSIFICATION	Urban Low Density
POSTED SPEED	30/35/20 MPH
AREA OF PERSISTENT POVERTY	No
TRAVEL LANES	4
PRESENCE OF SHOULDER	No
PRESENCE OF SIDEWALK	Yes (with buffer)
PRESENCE OF BIKE LANE	No
JURISDICTION/OWNERSHIP	Marco Island/City

(2019-2023)

27 TOTAL CRASHES

2 TOTAL FATAL AND SERIOUS INJURY (KSI) CRASHES

1 FATALITY

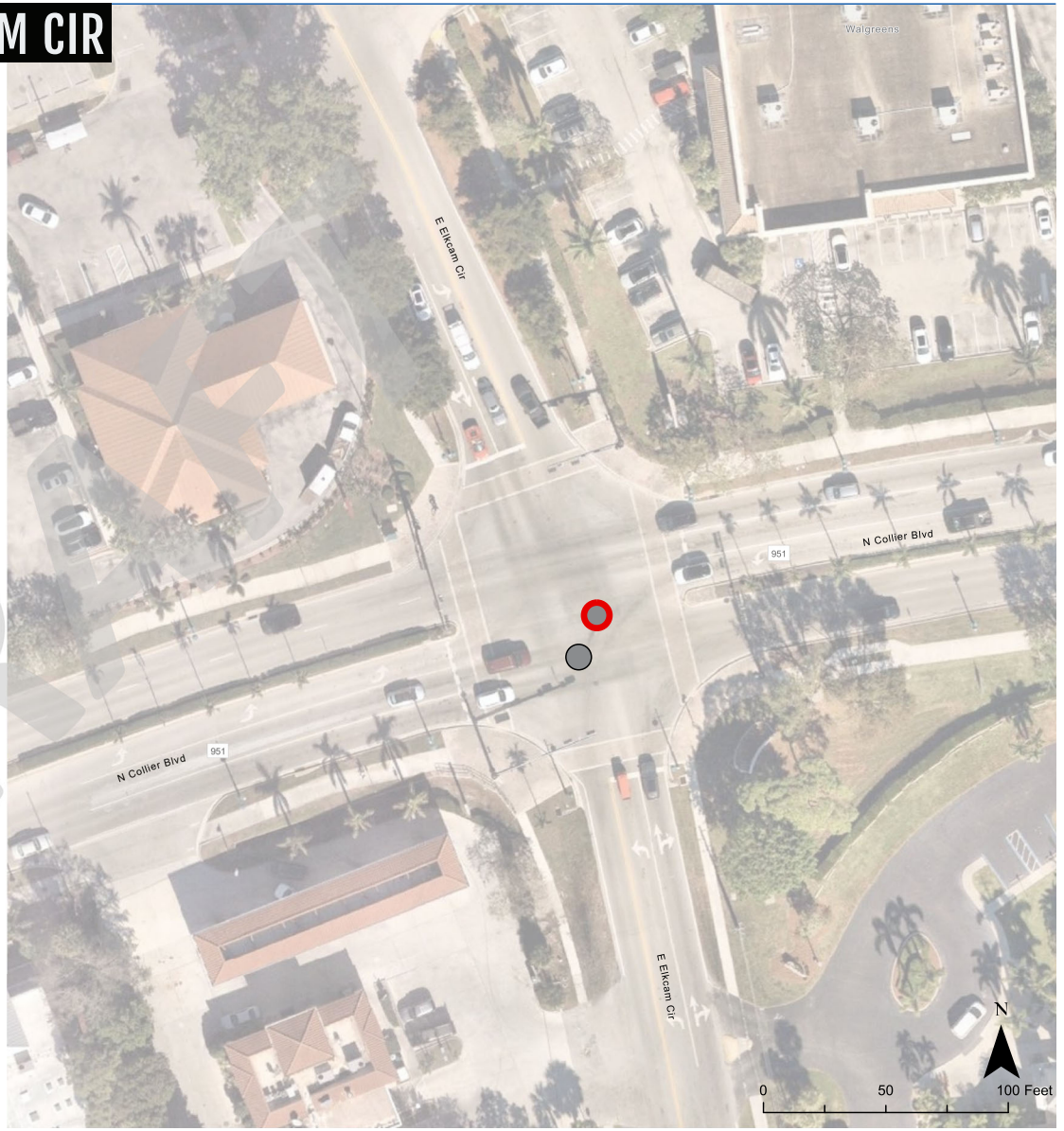
1 SERIOUS INJURY

FATAL AND SERIOUS INJURY (KSI) CONTRIBUTING FACTORS

- **1** Off-Road
- **1** Left-Entering

TYPES OF FATAL AND SERIOUS INJURY (KSI) CRASHES

- **1** Drug-Related
- **2** Intersection-Related



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MARCO ISLAND – N COLLIER BLVD & E ELKHAM CIR

INTERSECTION

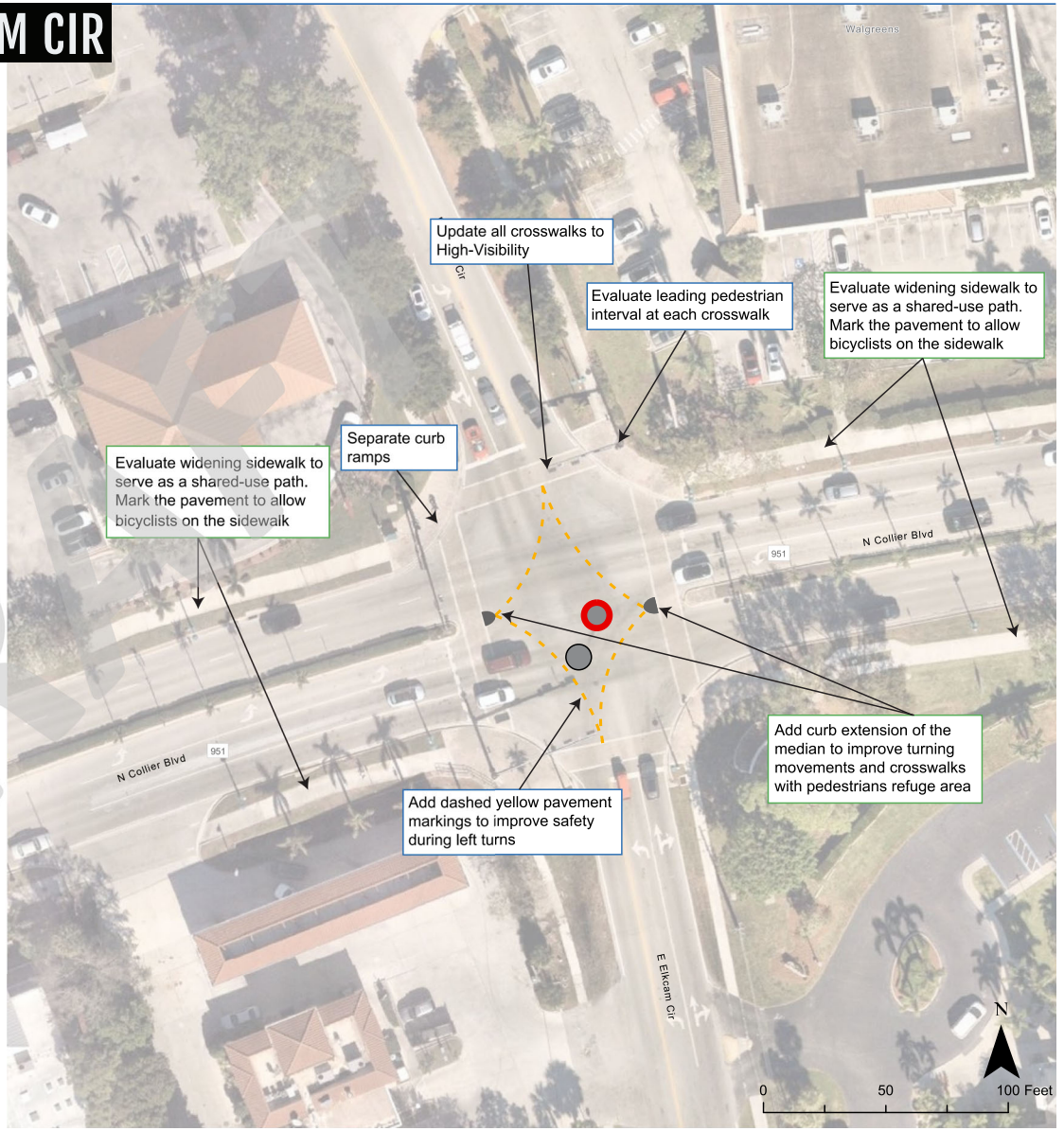
This intersection within the City of Marco Island is at North Collier Boulevard and East Elkcam Circle. This location was identified as a top 15 intersection within the High-Injury Network. The City of Marco Island has previously identified a need for bike and pedestrian improvements on Collier Boulevard. The intersection is the site of many pedestrian generating businesses, and is served by two bus routes.

SHORT-TERM ACTIONS

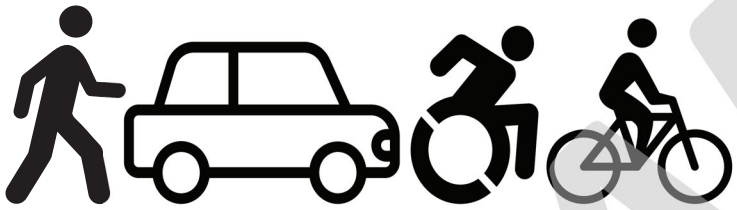
Short-term recommendations are to evaluate the traffic signals to incorporate leading pedestrian interval, update the crosswalks to high-visibility, and adding pavement markings to delineate the left turn movements.

LONG-TERM ACTIONS

Long-term recommendations are to evaluate the sidewalks along the corridor to be upgraded to allow for a shared-use path and to re-align the crosswalks and medians to allow for a pedestrian refuge island.



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PROGRESS AND TRANSPARENCY

PERFORMANCE MEASURES AND PLAN MONITORING

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PERFORMANCE MEASURES AND REPORTING

Collier MPO is committed to reducing serious injuries and fatalities from crashes by 25% by 2050.

Adopting the Safety Action Plan is only the first step in building a safer transportation network. Success lies in the ongoing collaboration, implementation, and assessment of its performance. The performance measures detailed below are designed to build transparency with Collier County residents and elected officials, create defined feedback loops between implementation and future design and investment choices, and enable adaptation moving forward while adhering to the MPO's desired outcomes.

SAFETY PERFORMANCE MEASURES

Safety is a top priority for the MPO and is the first national goal outlined in the Fixing America's Surface Transportation (FAST) Act. Under the FAST Act, the FHWA mandates that state Departments of Transportation (DOTs) and MPOs adopt five safety performance targets, which Collier MPO originally endorsed in February 2018 and readopts on an annual basis. These targets focus on reducing fatalities and serious injuries, including those involving non-motorized road users.

The Collier MPO integrates these safety performance targets, including interim goals, into its plans and projects. As part of its ongoing commitment, the MPO emphasizes infrastructure upgrades, education campaigns, and enforcement measures to reduce risks for road users. The LRTP, Policy and Implementation, outlines the framework for monitoring and reporting progress on these targets.

By aligning with Vision Zero and adopting FDOT's targets, Collier MPO reinforces its dedication to creating a safer transportation network, fostering a culture of safety, and advancing the goal of eliminating severe injuries and fatalities on Florida's roadways.

To measure progress, Collier MPO will track the following key performance indicators:

METRIC	DESIRED TREND	GOAL
Number of fatalities	*Declining*	**25% reduction in the number of serious injuries anf fatalities from crashes by 2050**
Rate of fatalities per 100 million vehicle miles traveled (VMT)	*Declining*	
Number of serious injuries	*Declining*	
Rate of serious injuries per 100 million VMT	*Declining*	
Number of non-motorized fatalities and serious injuries	*Declining*	

IMPLEMENTATION & PROGRESS MONITORING

In addition to the performance indicators, the MPO will track progress in achieving the **implementation actions** outlined in pages 52 through 59. The actions and their suggested performance measures will be evaluated and reported on an annual basis through an expansion of the **MPO's Annual Report** (*Action 5.1.1*).

Additional monitoring and implementation will be conducted through continued involvement of Steering Committee members and active participation in the Collier County Community Traffic Safety (CTST) (*Actions 3.1.1 & Actions 5.1.4*).

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COLLIER Metropolitan Planning Organization

SAFETY ACTION PLAN