



AGENDA BPAC

Bicycle Pedestrian Advisory Committee ZOOM VIRTUAL MEETING

Meeting ID: 823 4729 4895

Password: 198355

Please click [here](#) to be directed to the Zoom website, or you may dial in at 1-646-876-9923

**October 20, 2020
9:00 a.m.**

1. Call to Order
2. Roll Call
3. Approval of Agenda
4. Approval of the September 15, 2020 Meeting Minutes
5. Open to the Public for Comment on Items not on the Agenda
6. Agency Updates
 - A. FDOT
 - B. MPO
7. Committee Action
 - A. Review and Comment on 2045 Long Range Transportation Plan (LRTP) Draft Chapter 6 Cost Feasible Plan
8. Reports & Presentations (May Require Committee Action)
 - A. FDOT D1 Districtwide Pedestrian-Bicycle Active Transportation Plan
 - B. Everglades City Bicycle & Pedestrian Master Plan
 - C. Public Meetings – Quorum Requirement
9. Member Comments
10. Distribution Items
 - A. 2045 LRTP Draft Chapter 4 - Revised
11. Next Meeting Date

November 17, 2020 – 9:00 a.m.
TBD whether will be virtual or in-person
12. Adjournment

PLEASE NOTE:

This meeting of the Bicycle & Pathways Advisory Committee (BPAC) to the Collier Metropolitan Planning Organization (MPO) is 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. Any person desiring to have an item placed on the agenda shall make a request in writing, with a description and summary of the item, to the MPO Executive Director 14 days prior to the date of the next scheduled meeting of the BPAC. 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 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 by calling Ms. Anne McLaughlin at (239) 252-5884 or by writing to her at 2885 South Horseshoe Dr., Naples, FL 34104.

**BICYCLE & PEDESTRIAN ADVISORY COMMITTEE of the
COLLIER METROPOLITAN PLANNING ORGANIZATION**

Virtual Meeting via ZOOM platform

September 15, 2020 ---- 9:00 A.M.

Meeting Minutes

1. Call to Order

Mr. Bonness called the meeting to order at 9:07 a.m.

2. Roll Call

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

Members Present

Joe Bonness, Chair
Anthony Matonti, Vice-Chair
Alan Musico, At-Large (left meeting at 10:09 am)
Kim Jacob, At-Large
Susan Sonnenschein, At-Large
Andrea Halman, At-Large
Patty Huff, At-Large
Dayna Fendrick, At-Large
Dr. Mort Friedman, At-Large (joined later)

Members Absent

David Driapsa, At-Large
Larry Smith, At-Large
Claudia Keeler, At-Large

MPO Staff

Anne McLaughlin, Executive Director
Brandy Otero, Principal Planner
Karen Intriago, Administrative Assistant

Others Present

Victoria Peters, FDOT
Lorraine Lantz, *Chair*, TAC
Tamarin Kirby, Planner, CAT
Zachary Karto, CAT
Trinity Scott, Collier County
Catherine Faerber, Naples Pathways Committee
Valerie Nowotnick, Minute Taker

3. **Approval of the Agenda**

Ms. Sonnenschein moved to approve the agenda. Second by Ms. Huff. Carried unanimously.

4. **Approval of the August 18, 2020 Meeting Minutes**

Mr. Bonness – correction – add in “bike lanes” in paragraph 1 when referencing shoulders.

Ms. Sonnenschein moved to approve the August 18, 2020 minutes as corrected. Second by Ms. Halman. Carried unanimously.

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

None.

6. **Agency Updates**

A. **FDOT**

Ms. Peters – BPAC and Patty Huff had requested reflective pavement markers near bridges on US 41 to be removed about a year ago. Will be approved to reduce or remove all of them by FDOT. Will be put out for bid and hopefully completed in 5-6 months. Requested a revisit for traffic light at Westclox Street and SR 29 near Immokalee. Was conducted in February to witness full capacity of seasonal traffic flow. Study found that intersection warrants a full signal due to crashes. No timeline but FDOT will look at design.

Ms. Halman – is roundabout canceled. **Ms. Peters** – no. Traffic light will be an interim solution but may become permanent solution. Will likely take a year to design and then install. Currently in design but is not completed. Alternative may be roundabout. Brief discussion concerning necessity of solution whether roundabout or traffic signal.

Ms. Huff – commended **Ms. Peters** in assisting with the removal of the reflective pavement markers on 41 east. **Ms. Peters** – Deborah Chesna is an advocate for the causes of bike/ped projects.

Ms. Fendrick – inquired about SunTrail application [to fill in the gap in the shared-use-path on 41 east. **Ms. Scott** – County has not approved. SunTrail has statewide requirements to have trail manager. Must take on significant maintenance responsibilities including drainage. Cannot recommend that the Board take on the responsibility. Other agencies – Everglades City, City of Marco Island, City of Naples – can agree to be trail managers – not just County. Maintenance includes litter pickup, trash removal, soil/weed control, graffiti control and many others. FDOT would provide remedial maintenance only. Provided exact verbiage from SunTrail maintenance agreement on all duties. Funding source is not available. Application for feasibility

study was submitted to SunTrail instead, with the County's support. **Ms. Peters** – Deborah Chesna has been working on application for FPL easement. Missing link area on US4 – part of project – waiting on funding. **Ms. Fendrick** – are these requirements on all applications. **Ms. Scott** – yes, it is required. On state facility it will be difficult. Pivoted and went to all County facility [on FPL easement and along County roads]. Going after funding but on a state facility like US 41 should pursue other funding. FPL greenway is several miles and includes SunTrail alignment. Pursuing FDOT improvement on US 41 – roadway needs to be widened in 5-10 years. Will be discussing including road widening project in Long Range Transportation Plan - Cost Feasible Plan. Discussion has been happening in Lee County with maintenance responsibility – they received SunTrail monies for off-system trails – but building bike/ped facilities along roads through other funding sources, including in road projects. **Mr. Matonti** – area outside of Tampa was successful in getting agreement but it was years ago. How does maintenance on Gordon River Greenway differ from SunTrail. **Ms. Scott** – application is very open ended on maintenance. FDOT has leverage. Could require County to maintain entire drainage area. Could be very costly unless specifically designated. Can enter into agreement for benches, etc. Part of the transportation network should be maintained by both. **Mr. Bonness** – need to find budget source if SunTrail projects are maintained? **Ms. Scott** – if County owned, does not require additional maintenance funding. Utilizing SunTrail statewide funding on state highway system requires the County supply maintenance – but maintenance funding is limited. Brief discussion among members regarding applying for funds through statewide versus local funding sources.

B. MPO Executive Director

Ms. McLaughlin – None.

7. Committee Action

A. Endorse Amendment to Committee Bylaws

Ms. McLaughlin – every summer, the agreements and bylaws are reviewed to see if changes are needed for each committee. Want to be consistent with MPO bylaws changes. (1) name of committee – changing from “Pathways”; (2) under “Purpose” – language would mirror MPO Board bylaws. Intended to be cleanup amendment; (3) Membership was approved to be 12 instead of 9 – taken from MPO bylaws; (4) Chair Duties – chair is empowered to call special meetings. Change to Chair and Executive Director shall collaborate; (5) Special Meetings – may be called by Chair in coordination with Executive Director; (6) Agendas – recommending that language be deleted stating that agenda can be changed during meeting; (7) Quorum – County attorney does not agree with sentence 2 and making recommendations when quorum is not present, so deleted it; (8) Staff shall maintain minutes and other records. Not verbatim minutes but ensure accuracy; (9) Amendments – making clear that Board is final approval body for any changes to bylaws.

Ms. Huff – Were MPO Board bylaws regarding BPAC changed before discussing with committee. **Ms. McLaughlin** – was done awhile ago but Board has authority to change bylaws without seeking committee approval first but preference is to get committee endorsement. Membership increase was Board action and spontaneous in response to applications received.

Committee was opposed to idea. **Ms. Huff** – voting – can be Zoom meetings also? **Ms. McLaughlin** – not likely – would require new interpretation of law by County Attorney’s office. Ability to meet by Zoom is due to Governor’s Executive Order temporarily suspending single component of Sunshine law. Need change at state level and/or Governor’s Executive Order to make change permanent. Quorum needs to be physically present. **Ms. Halman** – can virtual be made permanent and other types of meetings may be virtual permanently. **Ms. McLaughlin** – can ask question but County Attorney’s office has been adamant. Rules were reluctantly modified and only after majority of MPO offices changed their requirements. Not optimistic about any rule changing in the future. Brief discussion regarding possibility of virtual meetings going forward.

Ms. Halman – Section 4 – page 3 – will language be included – after corrections and signature – officers and terms of office. **Ms. McLaughlin** - no changes are proposed. **Ms. Halman** – should add “quorum” – may not be a quorum. **Ms. McLaughlin** – confirmed language covered quorum issue.

Ms. Huff – section 2 B – deleted everything on C – seems important for BPAC on 3-4-5 under C to recommend opportunities that will improve walking, etc. – entire deletion of C is not appropriate. **Ms. McLaughlin** – Section A picks up quite a bit from C and includes other verbiage that was not originally under C.

Ms. Halman – Chair Duties under 2 B – should include “all meetings” instead of just “meetings.” **Ms. McLaughlin** – would need to go back to County Attorney to revise document again. **Ms. Musico** – “meetings” is implied as all meetings.

Ms. Huff – section meetings under A on page 2. Primary responsibilities are recommending priorities and giving comments on LRTP. **Ms. McLaughlin** – falls under advising MPO Board of opportunities. MPO Board bylaws for BPAC committee – compared to actual BPAC bylaws – were out of sync. As MPO Bylaws were amended – BPAC bylaws could be changed in concert with them. BPAC cannot do something not already authorized under MPO Board bylaws. LRTP and TIP projects are presented to BPAC for comments. Purview is not the same as CAC and TAC – more administrative duties with those committees. Policy items with significant bike/ped components are brought to BPAC.

***Mr. Matonti** moved to endorse the Amendment to Committee Bylaws. **Ms. Sonnenschein** seconded. Passed unanimously.*

B. Review and Comment on 2045 Long Range Transportation Plan Draft Cost Feasible Plan (CFP) Roadway Network, Draft Chapter 4 System-wide Needs Assessment

Ms. McLaughlin – Cost Feasible Plan is work in progress. Have not brought final list of roadways on Cost Feasible Plan for endorsement for various reasons. Difficult to work through FDOT travel demand modeling process and arrive at firm conclusions while consultant is working on revenue projections. Wanted BPAC to have opportunity to look at what is on table and what CAC/TAC have reviewed. Referred to spreadsheet in agenda packet. Seeking comments on Alternative 5 but will likely change again before finalized. Will present changes as they occur prior to adoption of plan in December. Explanation of color coding on spreadsheet for projects as

to funding source or plan source. Provides background context for Chapter 4 – system wide Needs Assessment – pertinent items to committee begin on page 39. Plan is still evolving. Consultants captured critical details of bike/ped master plan based on markups provided. Referred to page 4-39 of Needs Plan /p. 75 of packet. Consultant language indicates that products were only element of Bike-Ped Masterplan included in the LRTP. MPO intended that entire Bike-Ped Masterplan be included by reference. Very significant to include all aspects of entire plan. Other changes were clarifications. Emphasis on concerted effort to incorporate recommendations by reference. Necessary for funding. City of Naples and Everglades City were still in process of updating plans when Master Plan was adopted. As new plans come on-line they are incorporated automatically. Marco Island updates plan almost annually. Same incorporation for that process. Reviewed remaining language changes. Consultant covered many complicated items very well. SunTrail is also included. Bike/Ped Master Plan adopted in 2019. TAC commented that Needs Plan was outdated for Everglades City. Language updates priorities in 2017 and 2018. Also included TIGER grant specific to Immokalee. Goal of revisions was to get the Bike/Ped Master Plan to be incorporated completely.

Mr. Bonness – great job on getting everything included. **Ms. Huff** – page 443 – alignments and SunTrail corridors – not very much is rural Collier County or Everglades area – possible to consider SR 29 alignment for SunTrail for 2045 LRTP – connection between Immokalee and Everglades City. Rails to Trails. **Ms. McLaughlin** – couple ways to answer question. SunTrail alignment is officially recognized by State – adopted by Board. Bike/Ped Master Plan did recommend additions to SunTrail network with focus on roadway alignments that would not be eligible for funding as trail. Wanted to position Collier County to do the same as other MPOs, although not applying for SunTrail funding for road corridors. Paradise Coast Trail – Naples Pathway Coalition recognizes scenic trail/pathways. Contacted SunTrail agency to include map change but was not considering at the time – out of sequence. Adding US 29 to SunTrail network – when Bike/Ped Master Plan was prepared – it was not proposed. Mentioned as part of regional bike network – part of the Spine Trail system. Brief discussion regarding obstacles to getting it included. **Ms. Huff** proposed adding bridge repairs on US41 east due to safety considerations. Extensive discussion with members regarding bridge repairs and plans to improve them in the near future. **Ms. McLaughlin** would not advise that bridges be added to LRTP. **Ms. Peters** FDOT reviews safety of bridges on a regular schedule. Will report back to committee on schedule.

Ms. McLaughlin – will send revised, complete version of Needs Plan once consultant has made further changes/corrections. **Mr. Matonti** – how are comments incorporated into LRTP and map. **Ms. McLaughlin** – Jacobs is transitioning from comment map focused on needs – to new map focusing on cost feasible plan. Comments in each phase will be recorded when reporting is done for each phase of assessment. Some comments will result in changes to the plan. Lengthy discussion among members of procedure to finalize plan and options available on website to comment on maps, etc. Can visit www.mpocollier.org for additional information on entire plan and changes.

8. Reports & Presentations (May Require Committee Action)

None.

9. Members Comments

Dr. Friedman – inquired about pathways – how many active pathways are currently unusable due to accumulation of rain. How to get word out to public. **Ms. Scott** – stormwater personnel are checking case-by-case basis. One area on Immokalee is underwater. News outlets are a good resource. Brief discussion regarding pathways and local areas affected by flooding.

Mr. Matonti – has road diet been discussed for US 41. **Mr. Bonness** – around Coastland Mall to south towards downtown. Discussed many times. A lot of discussion by City of Naples. Does not want to see change in roadway. Brief discussion regarding previous proposals to incorporate on-street parking and other roadway options but nothing approved. **Ms. McLaughlin** – FDOT is still reviewing but not ready to propose a change to City of Naples.

Ms. Scott – currently reclassing position for project manager. Goal is to work on bike/ped projects. Will have someone designated as point person with her agency. Hopefully starting November 1, 2020. **Ms. Sonnenschein** – will they also assist with Paradise Trail. **Ms. Scott** – probably not as other projects are already pending that they will inherit. \$16M TIGER project is about to commence that includes 20 miles of sidewalks and transit facility.

Dr. Friedman – familiar with growth area where large buildings are being constructed. Golden Gate Parkway. Moorings Park. Numerous bikes in garage area. Senior citizens inquiring about safety concerns around development. **Ms. Scott** – signal does not meet signal spacing. No issues thus far with safety. Commissioners office has been contacted but signal is not warranted. Intersection at Livingston and Golden Gate Parkway is extremely close to location. Brief discussion regarding safety concerns observed.

Ms. Huff – Everglades City [City Council] approved road diet on CR29 Part of bike/ped master plan where County is resurfacing road. CR 29 – at separation point between 2 bridges – road diet will be 7 ft. bike plane and 15 feet car lane. Have submitted Bike/Ped Master Plan for Everglades City will be discussed at October meeting. www.evergladescity.com and www.visitevergladescity.com are two sources of websites for additional information.

Ms. Faerber – Blue Zones has circulated flyers to hospitality industry to reach bike-to-work employees. Hope that people who participate in Bike-To-Work day will utilize various stops. Also need to get lights and helmets distributed to people. Will use 3 locations to distribute. Need bilingual citizens to assist. Scheduled for Tuesday, 9/22/20. Seeking volunteers. Brief discussion regarding further details of event and recruitment of volunteers.

Ms. Lantz – applied last year for Golden Terrace Elementary School for safe routes program. Did not receive grant award but are putting another application for same location – Laverne Gainor Elementary School – it will be resubmitted. Will need letters of support to submit with grant application.

10. Distribution Items

None.

11. Next Meeting Date

October 20, 2020 – 9:00 a.m.

TBD whether will be virtual or in-person

12. Adjournment

***Mr. Bonness** asked for motion to adjourn. **Dr. Friedman** moved to adjourn. **Ms. Huff** seconded. Unanimous vote. The meeting was adjourned at 11:13 a.m.*

EXECUTIVE SUMMARY
COMMITTEE ACTION
ITEM 7A

Review and Comment on 2045 Long Range Transportation Plan (LRTP) – Draft Chapter 6 Cost Feasible Plan

OBJECTIVE: For the Committee to review and comment on the 2045 LRTP Draft Chapter 6 Cost Feasible Plan (CFP).

CONSIDERATIONS: This is a continuation of the Committee’s review of the draft 2045 LRTP which began with a discussion on the Needs Plan (Chapter 4) and the draft CFP roadway network at the September meeting. MPO staff will present an overview of Chapter 6 - Cost Feasible Plan for the 2045 LRTP (**Attachment 1**). At their meeting on October 9th, the MPO Board gave staff their concurrence for moving forward to gather public comments on the draft CFP.

Committee members are encouraged to view the video presentation posted on the MPO website, participate in the Virtual Public Meeting scheduled for Wednesday, October 14th at 5:30 and comment on any and all draft Chapters of the LRTP. The documents and video can be viewed at this link:

<https://www.colliermopo.org/lrtp/>

STAFF RECOMMENDATION: That the Committee reviews and comments on the 2045 LRTP Draft Chapter 6 Cost Feasible Plan (CFP).

Prepared By: Anne McLaughlin, MPO Director

Attachments:

1. Draft Chapter 6 Cost Feasible Plan



Collier MPO

2045 Long Range Transportation Plan

Chapter 6 – Cost Feasible Plan

Contents

Chapter 6 Cost Feasible Plan.....	6-1
6-1 Roadway Cost Feasible Projects	6-1
Roadway Projects Prioritization.....	6-1
Funding of Other Roadway Needs	6-10
Unfunded Roadway Needs	6-11
6-2 Bicycle and Pedestrian Projects	6-14
6-3 Transit Cost Feasible Projects	6-14
Transit Cost Assumptions.....	6-14
6-4 Freight Network Projects	6-20
6-5 Airport Transportation Projects.....	6-20

Tables

Table 6-1. Collier MPO 2045 LRTP SIS Cost Feasible Plan Projects.....	6-2
Table 6-2. Collier MPO 2045 LRTP Cost Feasible Plan Projects – FDOT Other Roads Projects and Local Roadway Projects	6-4
Table 6-3. Collier MPO 2045 LRTP Cost Feasible Plan Projects – Partially Funded Projects (FY2026–FY2045)	6-8
Table 6-4. Congestion Management Projects Funded in TIP.....	6-11
Table 6-5. 2045 LRTP Unfunded Roadway Needs.....	6-12
Table 6-6. Costs of Priority Bicycle and Pedestrian Projects by Mileage Totals	6-14
Table 6-7. 2045 Transit Needs Summary	6-16

Figures

Figure 6-1. Collier MPO 2045 LRTP SIS Cost Feasible Plan Projects	6-3
Figure 6-2. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2026–FY2030).....	6-5

Figure 6-3. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2031–FY2035).....	6-6
Figure 6-4. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2036–FY2045).....	6-7
Figure 6-5. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map – Partially Funded (FY2026–FY2045) ...	6-9
Figure 6-6. Total Costs by Project Phase for FDOT Other Roads and Local Roads Funded Projects 2026-2045.....	6-10
Figure 6-7. Total Costs by Funding Source 2026-2045	6-10
Figure 6-8. 2045 Transit Cost Feasible Plan Projects Map.....	6-19
Figure 6-9. Freight Hotspot Locations.....	6-20

Chapter 6 Cost Feasible Plan

This chapter summarizes the development of the 2045 LRTP Cost Feasible Plan, which identifies the multimodal transportation projects that can be funded through 2045 based on the estimated revenues presented in Chapter 5.

6-1 Roadway Cost Feasible Projects

Development of the cost feasible roadway projects began by estimating the costs associated with each project in the roadway needs. As detailed in the Collier MPO 2045 LRTP Update *Project Cost Development Methodology Technical Memorandum* presented in Appendix E, planning-level costs were developed for each project phase including Project Development and Environment (PD&E) Study, preliminary engineering/design (PE), ROW, construction (CST), and environmental mitigation. The project phase costs were developed using the FDOT 2045 LRTP Cost Estimation Tool and recent roadway project costs within the County. The cost components were applied to individual roadway projects from the Needs Plan to develop the roadway cost feasible projects for the LRTP. Once the projects were prioritized, the FDOT present-day cost inflation factors were applied to develop YOE costs for each project.

Roadway Projects Prioritization

As noted in Chapter 2, five alternative network scenarios were modeled using the D1RPM travel model. The first two network scenarios were not financially constrained and helped refine and develop the list of project needs. Alternative Network Scenarios 3 through 6 were modeled using an iterative process on a financially constrained list of projects to test travel demand and congestion throughout the network. These results of each network scenario test were shared with both

the County and TAC/CAC during advisory meetings for input on projects to be included in the next model run. The Collier MPO 2045 LRTP Update *Scenario Network Modeling Technical Memorandum* presents more details on the results of each network scenario modeled (refer to Appendix E).

Projects were also prioritized based on public input. Using the WikiMapping online interactive tool, the public selected their top five projects from the roadway needs and cost feasible projects and provided comments. Further details on this public outreach is presented in Chapter 2-4, Public Participation.

The Collier MPO TIP and FDOT Work Program are updated annually and extend to 2025. The cost feasible projects presented in herein are consistent with the TIP and FDOT Work Program. Should funding for a project phase be identified sooner than anticipated in this LRTP, an amendment of this LRTP is required to reflect the consistency with the updated TIP.

The roadway projects selected for inclusion in the Cost Feasible Plan are illustrated in the following maps and tables. As noted in Chapter 5, financial planning for statewide and metropolitan transportation plans is typically required for three periods: short range, intermediate range, and long range. Therefore, the cost feasible projects are presented in three multi-year planning periods: Fiscal Years (FY) 2026 to 2030, FY2031 to FY2035, and FY2036 to FY2045. **Table 6-1** presents the SIS roadway cost feasible projects by planning year and project phase. **Figure 6-1** presents a map of the projects and a distribution of the costs by phase. **Table 6-2** presents the FDOT Other Roads Projects and Local Roadway Projects by planning year and project phase. **Figures 6-2, 6-3, and 6-4** presents these projects by planning years including the distribution of costs by phase. **Table 6-3** presents the partially funded projects within the FDOT Other Roads Projects and Local Roadway Projects, and **Figure 6-5** presents a map of these projects for the entire planning period (FY2026 to FY2045).

Table 6-1. Collier MPO 2045 LRTP SIS Cost Feasible Plan Projects

Draft 9/21/2020 (in millions \$)

Map ID	Facility (FPID No.)	Limits From	Limits To	Description	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045
						PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	
92	SR 82 [4308481]	Hendry Co.Line	Gator Slough Lane	Widen from 2-Lanes to 4-Lanes	\$44.73	0.07	\$2.12	\$42.54			\$2.80							\$2.80
50	SR 29 [4175406]	New Market Road North	North of SR-82	Widen from 2-Lanes to 4-Lanes (with center turn lane)	\$1.47	0.38	1.09				29.94							\$29.94
51	SR 29/New Market Rd W - New Road [4175405]	Immokalee Rd (CR 846)	New Market Rd N	New 4-Lane Road	\$6.74	0.06	\$6.68			\$5.88							\$49.91	\$55.78
52	SR 29 [4175404]	Agriculture Way	CR 846 E	Widen from 2-Lanes to 4-Lanes	\$0.27	0.27							\$5.63				\$23.32	\$28.95
29	I-75 (SR-93) Managed (Toll) Lanes [FPID 4425192]	E of Collier Blvd (SR 951)	Collier/Lee County Line	New 4-Lane Express (Toll) Lanes (10-lanes)	\$0.03	0.03						63.25				145.43		\$208.67
48	SR 29 [4344901]	I-75 (SR 93)	Oil Well Rd	Widen from 2-Lane to 4 Lanes	\$0.03	0.03						4.33						\$4.33
53	SR 29 (SEGMENT D) [4175403]	Sunniland Nursery Rd	Agriculture Way	Widen from 2-Lanes to 4-Lanes	\$0.50	0.5							\$2.38					\$2.38
54	SR 29 (SEGMENT E) [4175402]	Oil Well Rd	Sunniland Nursery Rd	Widen from 2-Lanes to 4-Lanes	\$8.33	8.33							\$4.55					\$4.55
46	SR 29 [4178784]	SR 82	Hendry C/L	Widen from 2-Lanes to 4-Lanes	\$1.37	0.07	\$1.30											\$0.00
Totals					\$63.47	\$9.74	\$11.19	\$42.54	\$0.00	\$5.88	\$32.74	\$67.58	\$12.55	\$0.00	\$0.00	\$145.43	\$73.22	\$337.40
						\$63.47			\$38.62			\$80.13			\$218.65			

PRE-ENG	PRE-ENG includes PD&E and Design
PDC	Present Day Cost
ROW	Right-of-Way
CST	Construction
YOE	Year of Expenditure

Figure 6-1. Collier MPO 2045 LRTP SIS Cost Feasible Plan Projects

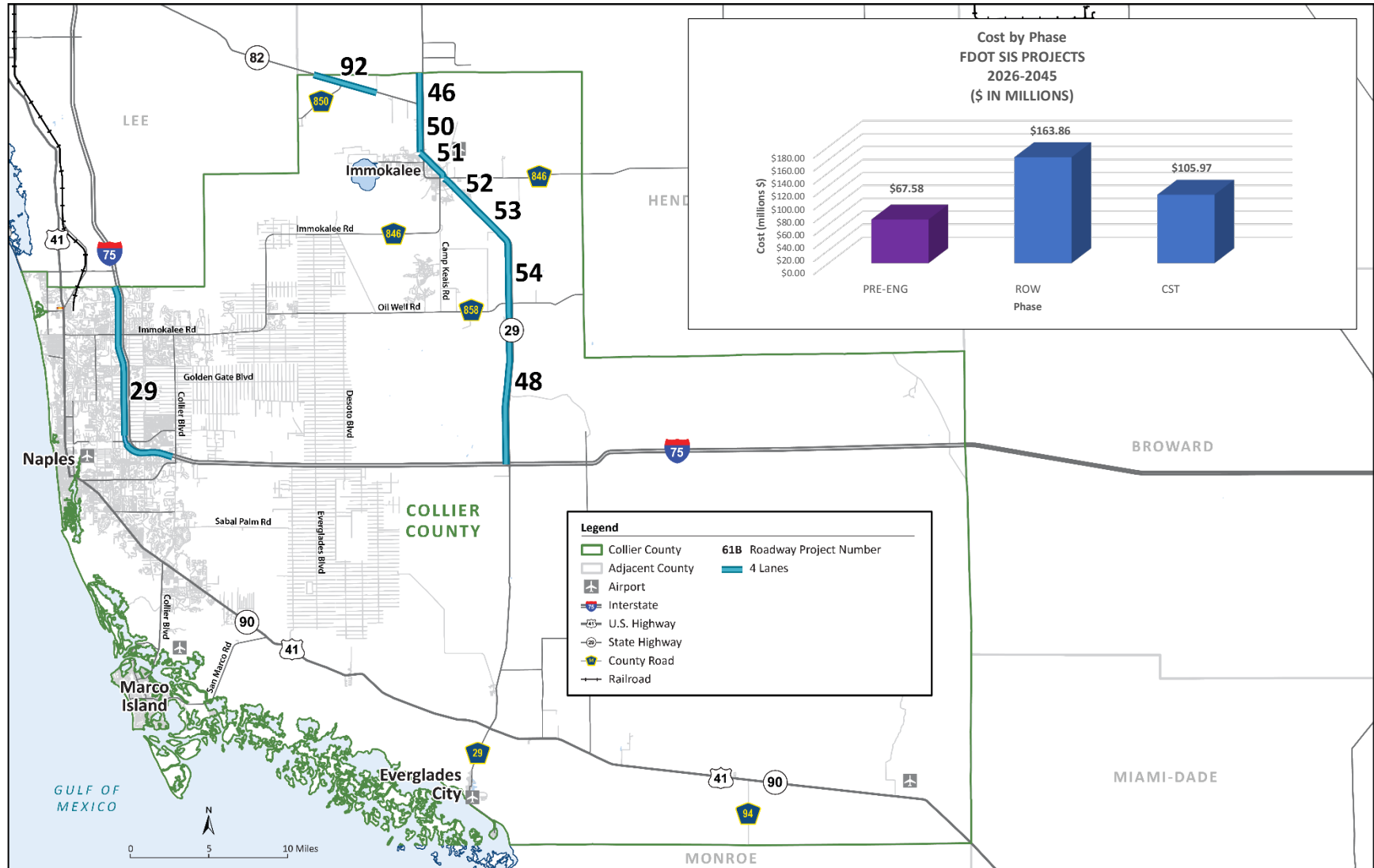


Table 6-2. Collier MPO 2045 LRTP Cost Feasible Plan Projects – FDOT Other Roads Projects and Local Roadway Projects

Draft 9/21/2020 (in millions \$)

Map ID	Facility	Limits from	Limits to	Description	Total Project Cost (PDC 2019 \$)	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045 (YOE \$ without SIS)	Total SIS Costs	County	OA PRE-ENG	OA ROW and CST	Funding Source
							PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST						
PLAN PERIOD 2 CONSTRUCTION FUNDED PROJECTS																								
12	Everglades Boulevard	Vanderbilt Bch Rd Ext	Randall Blvd	Widen from 2-Lanes to 4-Lanes	\$32.80					\$5.59	\$2.38	\$35.31							\$43.27		\$43.27			County
37	Oil Well Road / CR 858[60144]	Everglades Blvd	Oil Well Grade Rd	Widen from 2-Lanes to 6-Lanes	\$36.78	\$1.81	PRE-ENG		\$0.90	\$6.73		\$42.11							\$48.83		\$48.83			County
66	Immokalee Rd Intersection	Livingston Rd		Major Intersection Improvement	\$24.50							\$26.82							\$26.82		\$26.82			County
78	Golden Gate Parkway (Intersection)	Livingston Rd		Major Intersection Improvement	\$24.50					\$5.63		\$26.82							\$32.45		\$32.45			County
23	I-75 (SR-93) Interchange (new)	Golden Gate Pkwy		Interchange Improvement	\$9.59					\$0.58		\$12.24							\$12.81			\$0.58	\$12.24	OA
25	I-75	Immokalee Rd		Interchange Improvement (DDI)	\$9.59					\$0.58		\$12.24							\$12.81			\$0.58	\$12.24	OA
58	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd	6 L Farm Rd	Widen from 2-Lane to 4 Lanes	\$43.13					\$3.91	\$17.84	\$33.53							\$55.27			\$3.91	\$51.36	OA
111	US 41	Immokalee Rd		Intersection Innovation/Improve	\$17.50					\$3.13		\$20.12							\$23.24			\$3.13	\$20.12	OA
PLAN PERIOD 3 CONSTRUCTION FUNDED PROJECTS																								
36	Logan Boulevard	Pine Ridge Road	Vanderbilt Beach Road	Widen from 2-Lanes to 4-Lanes	\$22.23					\$3.40				\$3.16	\$27.47				\$34.03		\$34.03			County
42	Randall Boulevard	8th St NE	Everglades Blvd	Widen from 2-Lanes to 6-Lanes	\$47.07					\$7.29					\$65.04				\$72.32		\$72.32			County
90	Pine Ridge Rd	Logan Blvd	Collier Blvd	Widen from 4-Lanes to 6-Lanes	\$21.72					\$1.99	\$3.56				\$25.00				\$30.54		\$30.54			County
39	Old US 41	US 41 (SR 45)	Lee/Collier County Line	Widen from 2-Lanes to 4-Lanes	\$22.59					\$3.85	\$1.70				\$30.06				\$35.61			\$3.85	\$31.76	OA
57	US 41 (SR 90) (Tamiami Trail E) Intersection	Goodlette-Frank Rd		Major Intersection Improvement	\$13.00					\$0.63	\$2.97				\$15.77				\$19.37			\$0.63	\$18.74	OA
59	US 41	Collier Blvd		Major Intersection Improvement	\$17.25					\$2.81					\$23.66				\$26.47			\$2.81	\$23.66	OA
60	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd	Old US 41	Further Study Required	\$17.25					\$0.46			\$2.00		\$23.66				\$26.12			\$2.46	\$23.66	OA
PLAN PERIOD 4 CONSTRUCTION FUNDED PROJECTS																								
11	Everglades Boulevard	Randall Blvd	South of Oil Well Road	Widen from 2-Lanes to 4-Lanes	\$16.42											\$3.39	\$2.22	\$24.65	\$30.26		\$30.26			County
31	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	Widen from 2-Lanes to 4 Lanes	\$3.90											\$0.77	\$0.55	\$5.88	\$7.20		\$7.20			County
63	Westclox Street Extension	Little League Road	West of Carson Road	New 2-Lane Road	\$3.01								\$0.51				\$0.55	\$4.45	\$5.51		\$5.51			County
65	Wilson Blvd	Keane Ave	Golden Gate Boulevard	New 2-Lane Road (Expandable to 4-	\$36.15								\$8.82				\$6.15	\$50.29	\$65.26		\$65.26			County
97	Immokalee Road (Intersection)	Logan Blvd		Major Intersection Improvement	\$11.50											\$2.40		\$18.55	\$20.95		\$20.95			County
99	Vanderbilt Beach Road (Intersection)	Logan Blvd		Minor Intersection Improvement	\$11.50								\$2.12					\$18.55	\$20.67		\$20.67			County
101	Pine Ridge Rd	Goodlette-Frank Rd		Minor Intersection Improvement	\$5.75											\$1.20		\$9.28	\$10.48		\$10.48			County
C1	Connector Roadway from I-75 Interchange (New)	Golden Gate Blvd	Vanderbilt Beach Rd	4-Lane Connector Roadway from New	\$17.63					\$0.44			\$2.80	\$1.66				\$26.34	\$31.24			\$3.24	\$28.00	OA
C2	Connector Roadway from I-75 Interchange (New)	I-75 (SR-93)	Golden Gate Blvd	4-Lane Connector Roadway from New	\$80.59					\$2.00			\$13.28	\$7.41				\$120.02	\$142.70			\$15.28	\$127.43	OA
22	I-75 (SR-93) Interchange (new)	Vicinity of Everglades Blvd		New Interchange	\$42.26					\$3.76			\$5.30	\$8.32				\$55.65	\$73.03			\$9.07	\$63.97	OA

PRE-ENG includes PD&E and Design

Present Day CostRight-of-WayConstruction

YOE

Year of Expenditure

YOE Year of Expenditure

Figure 6-2. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2026–FY2030)

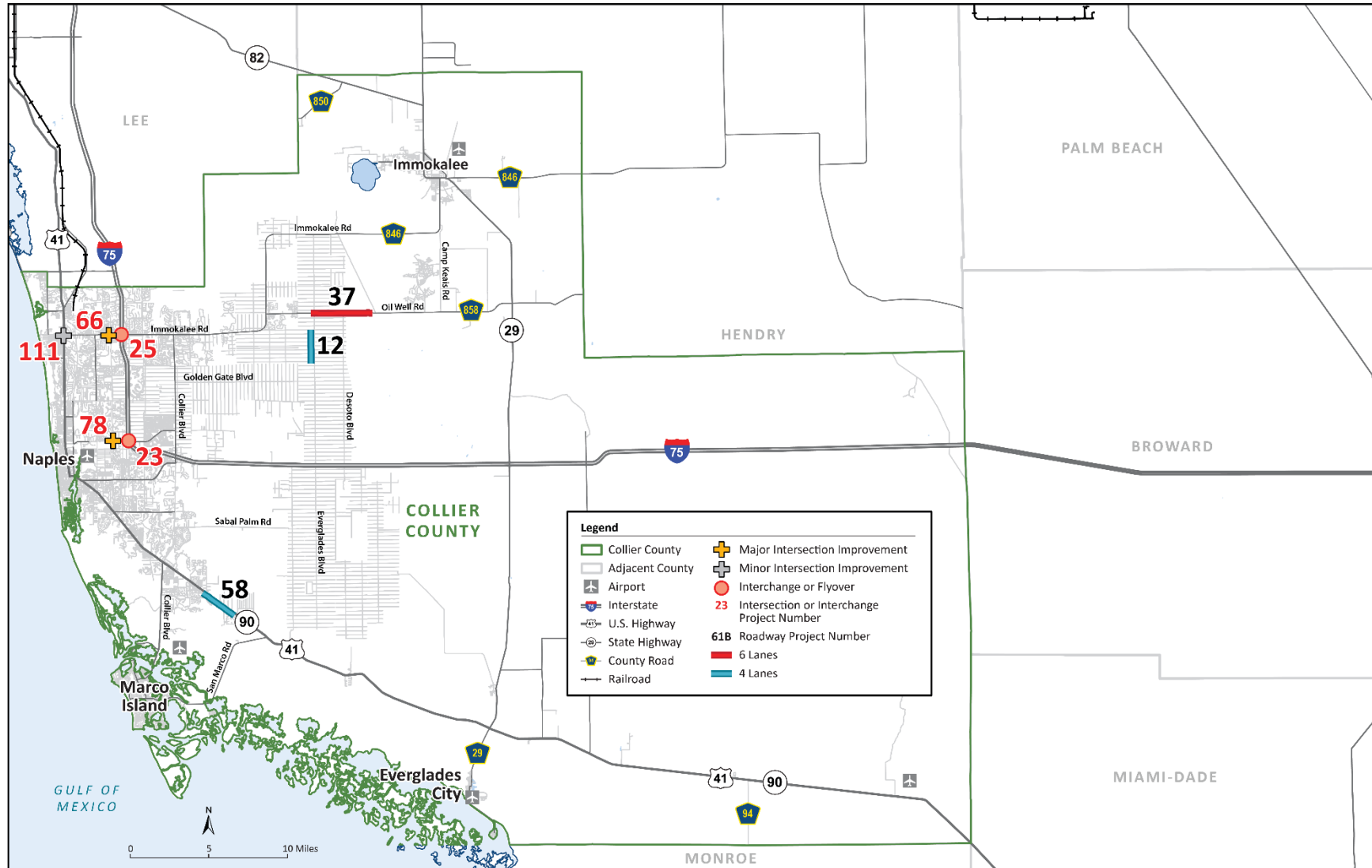


Figure 6-3. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2031–FY2035)

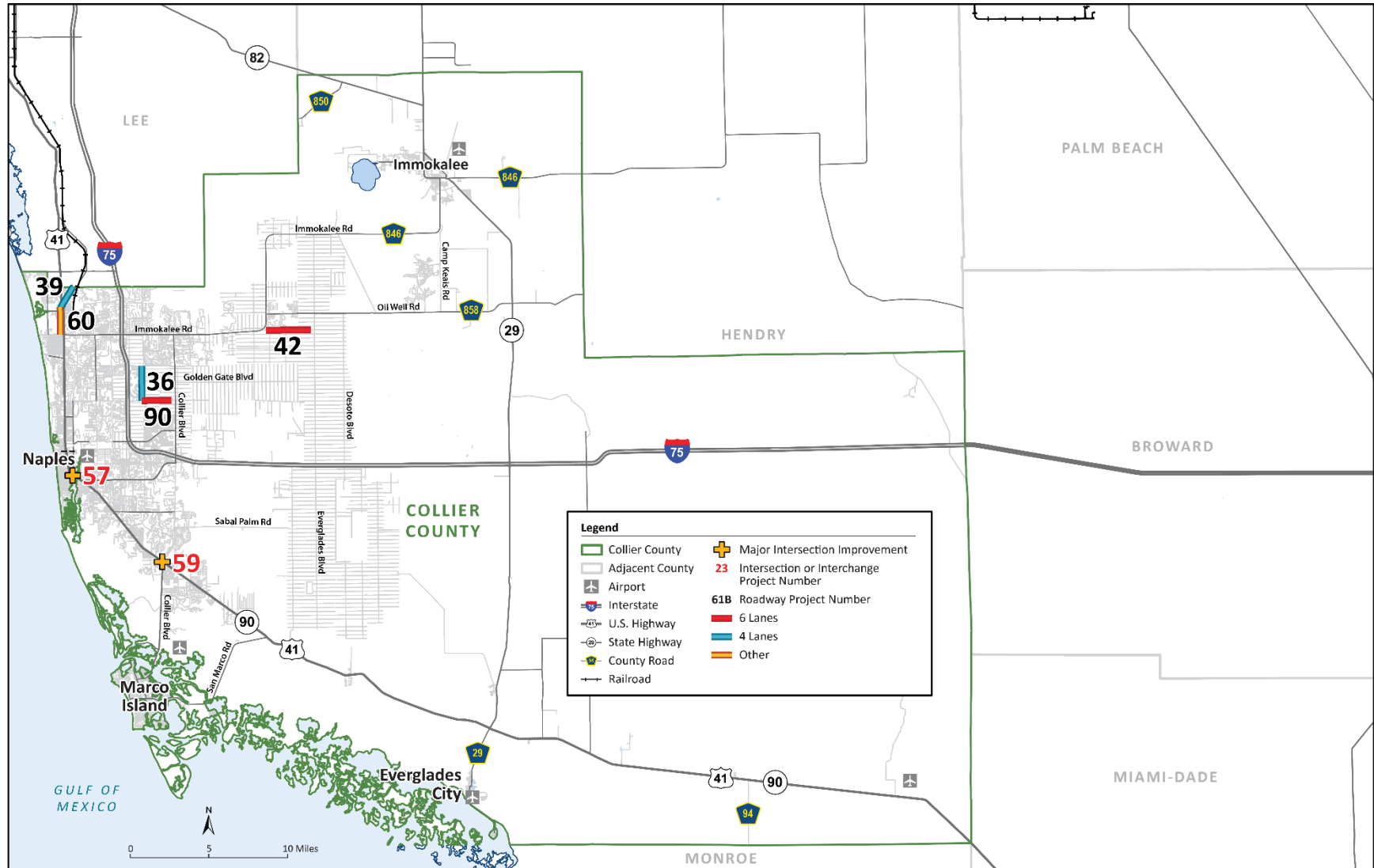


Figure 6-4. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map (FY2036–FY2045)

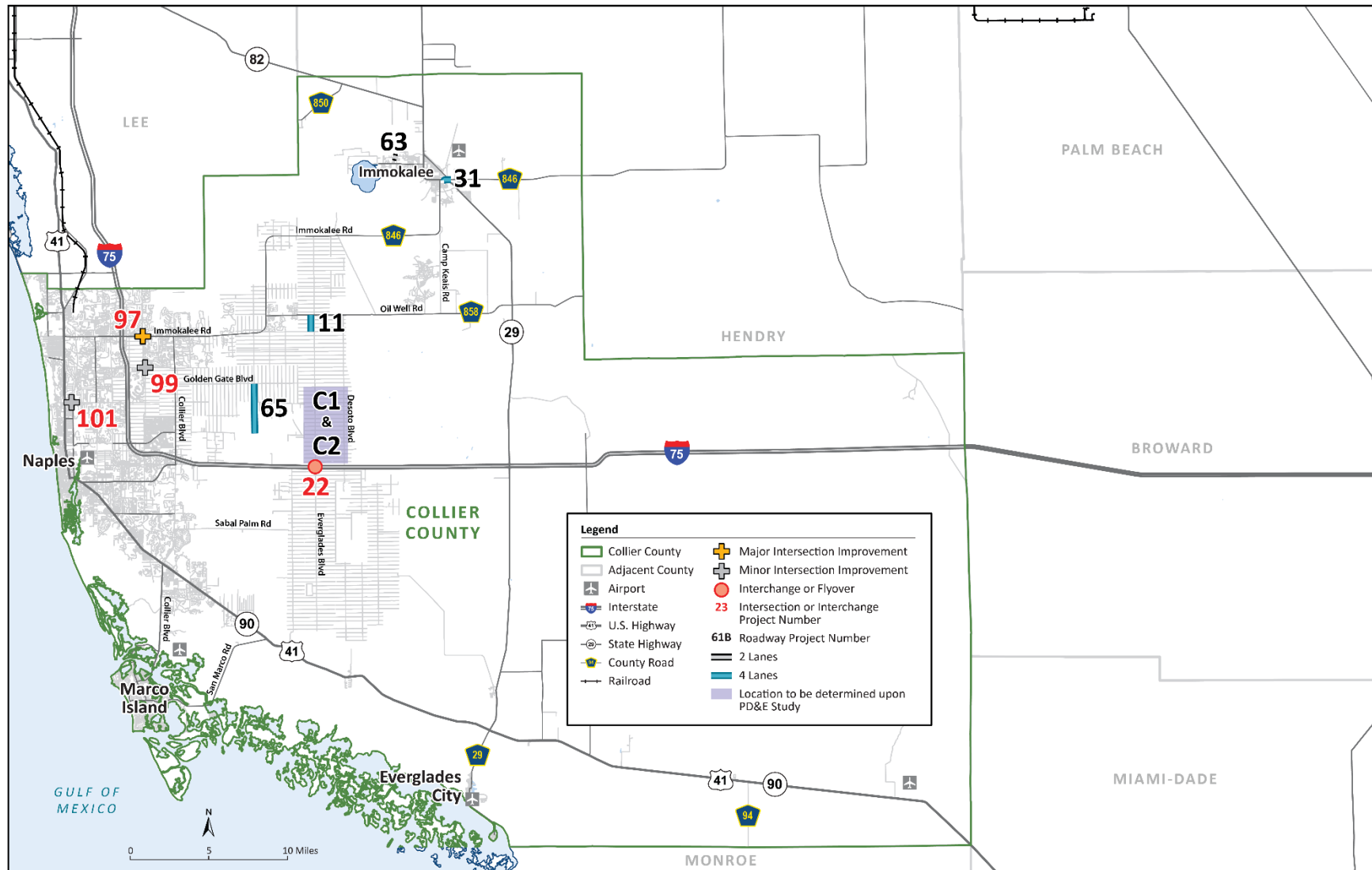


Table 6-3. Collier MPO 2045 LRTP Cost Feasible Plan Projects – Partially Funded Projects (FY2026–FY2045)

Draft 9/21/2020 (in millions \$)

Map ID	Facility	Limits from	Limits to	Description	Total Project Cost (PDC 2019 \$)	TIP Funding 2021–25 (YOE)	Plan Period 1 (TIP): 2020–2025			Plan Period 2: 2026–2030			Plan Period 3: 2031–2035			Plan Period 4: 2036–2045			Total Cost 2026–2045 (YOE \$ without SIS)	Total SIS Costs	County	OA PRE-ENG	OA ROW and CST	Funding Source
							PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST	PRE-ENG	ROW	CST						
PARTIALLY FUNDED PROJECTS																								
1	Benfield Rd (New) [60129]	The Lords Way	City Gate Blvd N	New 2-Lane Road (Expandable to 4-	\$37.31	\$11.00	\$0.00	\$4.00	\$7.00		\$4.00			\$5.00			\$18.00	\$27.00		\$27.00				County
5	Big Cypress Parkway	Vanderbilt Beach Road Ext.	Oil Well Road	New 2-Lane Road (Expandable to 4-	\$37.31										\$7.70	\$4.04		\$11.74		\$11.74				County
33	Little League Rd. Ext.	SR-82	Westclox St.	New 2-Lane Road	\$40.99										\$8.48	\$7.33		\$15.81		\$15.81				County
62B	Vanderbilt Beach Road Ext	Everglades Blvd	Big Cypress Parkway	New 2-Lane Road (Expandable to 4	\$41.17										\$8.38	\$16.07		\$24.46		\$24.46				County
93	Immokalee Rd	43rd Ave/Shady Hollow Blvd E	North of 47th Ave NE	Widen from 2-Lanes to 4-Lanes	\$9.79										\$2.26	\$0.48		\$2.74		\$2.74				County
94	Rural Village Blvd	Immokalee Rd	Immokalee Rd	New 4-Lane Road	\$23.41										\$5.84	\$2.96		\$8.80		\$8.80				County
98	Vanderbilt Beach Road (Intersection)	Livingston Rd		Minor Intersection Improvement	\$21.50										\$2.40			\$2.40		\$2.40				County
41A	Randall Blvd Intersection (flyover) [60147]	Immokalee Rd		Ultimate Intersection	\$35.66	\$9.75	\$0.95		\$8.80						\$9.46			\$9.46			\$9.46	\$0.00		OA
55	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	Widen from 4-Lanes to 6-Lanes	\$40.26								\$0.94		\$9.01		\$30.04	\$39.99			\$9.95	\$30.04		OA
74	Immokalee Rd (CR 846) Intersection	Wilson Blvd		Major Intersection Improvement	\$17.25										\$6.60			\$6.60			\$6.60	\$0.00		OA
102	US 41 (SR 90) (Tamiami Trail E) Intersection	Vanderbilt Beach Rd		Major Intersection Improvement	\$2.50										\$4.90			\$4.90			\$4.90	\$0.00		OA
103	US 41 (SR 90) (Tamiami Trail E) Intersection	Pine Ridge Rd		Major Intersection Improvement	\$2.50										\$4.90			\$4.90			\$4.90	\$0.00		OA
104	US 41 (SR 90) (Tamiami Trail E) Intersection	Golden Gate Pkwy		Major Intersection Improvement	\$3.50	\$0.50	\$0.27	\$0.23							\$4.40			\$4.40			\$4.40	\$0.00		OA
					\$901.36	\$23.06	\$2.13	\$4.23	\$16.70	\$52.75	\$32.44	\$209.17	\$35.78	\$25.55	\$210.65	\$82.08	\$40.36	\$381.70	\$1,070.48	\$0.00	\$541.55	\$85.72	\$443.20	
										\$294.36			\$271.97			\$504.14								

Notes:

Partially funded for construction

PRE-ENG includes PD&E and Design

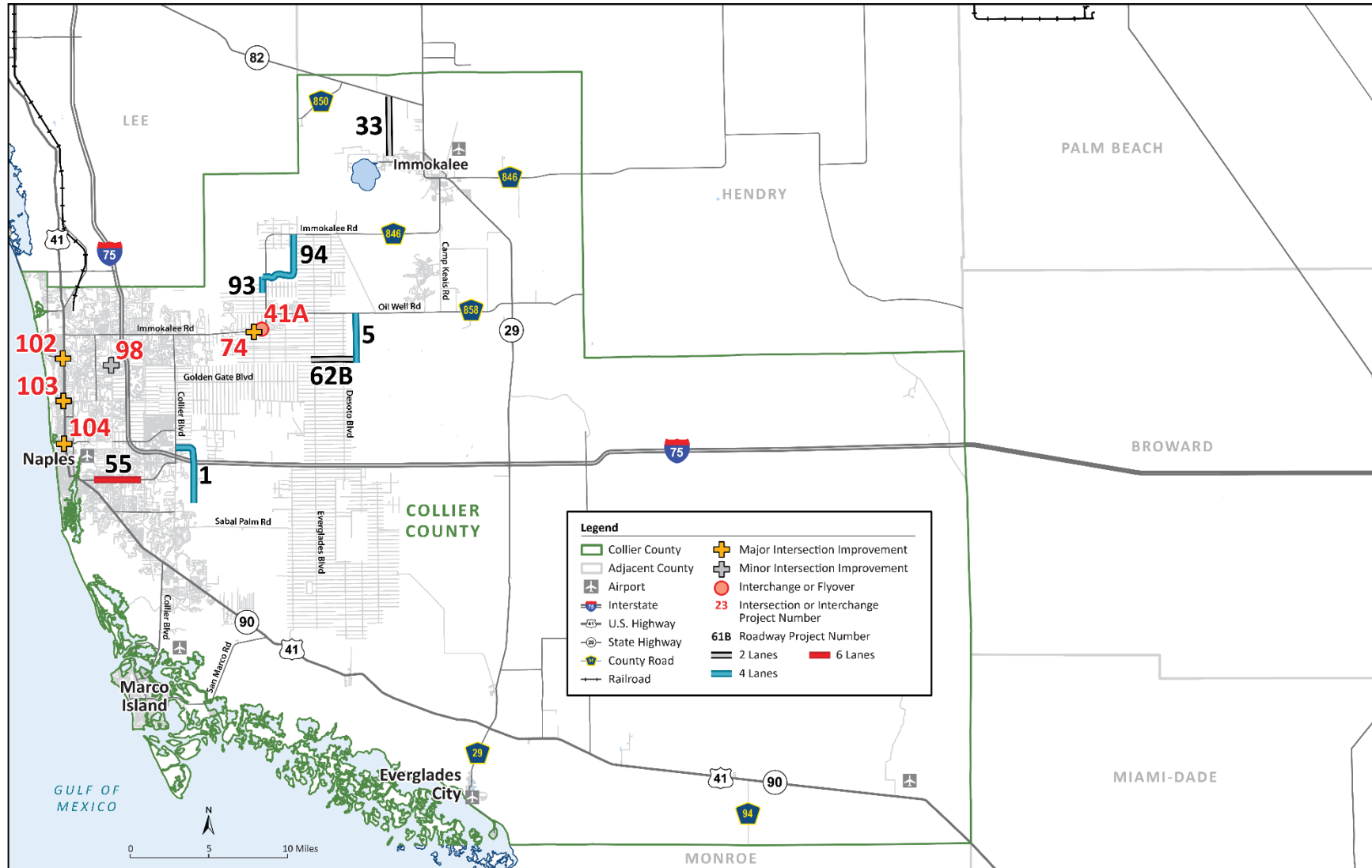
Present Day Cost

Right-of-Way

Construction

YOE Year of Expenditure

Figure 6-5. FDOT Other Roads and Local Roadway Projects Cost Feasible Plan Projects Map – Partially Funded (FY2026–FY2045)



Figures 6-6 and 6-7 present the total costs by project phase and funding source, respectively, for the FDOT Other Roads and Local Roads cost feasible projects for this 2045 LRTP update.

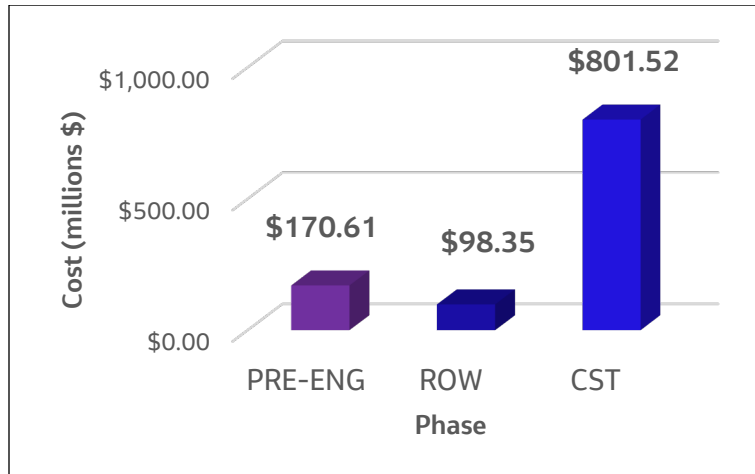


Figure 6-6. Total Costs by Project Phase for FDOT Other Roads and Local Roads Funded Projects 2026-2045
(YOE \$ in millions)

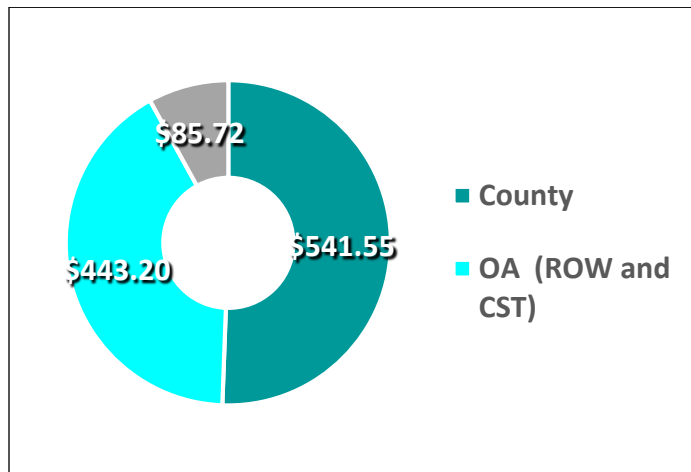


Figure 6-7. Total Costs by Funding Source 2026-2045
(YOE \$ in millions)

Funding of Other Roadway Needs

East of CR 951 Bridges

As noted in Chapter 4, there are 10 proposed canal crossing bridges that are the subject of the 2020 East of CR 951 Bridge Reevaluation Study. A 1-cent infrastructure surtax with specific funding earmarked for constructing these new bridges will be available within the next 7 years. A total of \$20.8 million in TMA (or SU) Funds is dedicated for bridge projects in the 2045 LRTP update:

- Planning Period 2026 to 2030: \$5.24 million for CST
- Planning Period 2031 to 2035: \$5.20 million for CST
- Planning Period 2036 to 2045: \$10.36 million for CST

Congestion Management Projects

Congestion management and ITS projects are generally short-term and immediate action projects. Therefore, their role in the LRTP process is modest and are more thoroughly addressed in the congestion management process. The current TIP includes several improvements to the traffic management center, arterial monitoring cameras, and other traffic equipment improvements that address safety, active roadway management, and bicycle and pedestrian facilities. **Table 6-4** presents congestion management projects funded for construction in the 2021-2025 TIP.

Table 6-4. Congestion Management Projects Funded in TIP

ITS Projects	Funded Amount	TIP/CIP Year
Bicycle Detection – City of Naples (refer to Figure 4-7 in Chapter 4)	\$66,429	CST 2024/25
ITS Fiber Optic and FPL Power Infrastructure at 13 locations	\$272,725	CST 2024/25
Travel Time Data Collection and Performance Measures	\$700,000	CST 2020/21
New Updated School Flasher System	\$353,250	CST 2024/25
New Vehicle Count Station Update (refer to Figure 4-7 in Chapter 4)	\$311,562	CST 2023/24
New ATCS at 13 signalized locations along Santa Barbara Boulevard and Golden Gate Parkway (refer to Figure 4-7 in Chapter 4)	\$893,000	PE 2023/24 CST 2024/25

Source: Collier MPO 2020 Transportation System Performance Report & Action Plan

Future congestion management projects will be prioritized through the MPO's congestion management process. A total of \$41.46 million in TMA (or SU) Funds is dedicated for future congestion management projects in the 2045 LRTP update:

- Planning Period 2026 to 2030: \$10.42 million for CST
- Planning Period 2031 to 2035: \$10.39 million for CST
- Planning Period 2036 to 2045: \$20.65 million for CST

Maintenance

Maintenance of the state roadways within the County and its associated municipalities is not included in this LRTP update.

As noted in the FDOT's 2045 *Revenue Forecast for the Collier MPO*, FDOT has included sufficient funding to meet the following statewide objectives and policies:

- Resurfacing program: Ensure that 80 percent of state highway system pavement meets FDOT standards
- Bridge program: Ensure that 90 percent of FDOT-maintained bridges meet Department standards while keeping all FDOT-maintained bridges open to the public safe
- Operations and maintenance program: Achieve 100 percent of acceptable maintenance condition standard on the SHS
- Product Support: Reserve funds for product support required to construct improvements (funded with the forecast's capacity funds) in each FDOT district and metropolitan area
- Administration: Administer the state transportation program

Maintenance of County and its associated municipality's roadways is funded primarily through fuel taxes and General Fund revenues. The maintenance programs primarily address routine maintenance operations that are preventive or corrective in nature and that address safety concerns.

Unfunded Roadway Needs

While the projects included in the roadway Cost Feasible Plan will address many of the congestion, safety, and capacity issues forecasted for 2045, financial resources are limited. Therefore, a number of unfunded projects in the 2045 roadway Needs Plan are not addressed in this Cost Feasible Plan. [Table 6-5](#) summarizes projects included in the roadway Needs Plan that are unfunded in this 2045 LRTP update.

Table 6-5. 2045 LRTP Unfunded Roadway Needs

Map ID	Project	From	To	Project Description
1	Benfield Rd. Extension	The Lords Way	City Gate Blvd. N	New 2-Lane Road (Expandable to 4 Lanes)
2	Benfield Rd.	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake-Hammock Extension	New 2-Lane Road (Expandable to 4 Lanes)
3	Big Cypress Parkway	North of I-75	Golden Gate Blvd.	New 2-Lane Road (Expandable to 4 Lanes)
4	Big Cypress Parkway	Golden Gate Blvd.	Vanderbilt Beach Road Extension	New 2-Lane Road (Expandable to 4 Lanes)
6	Big Cypress Parkway	Oil Well Rd.	Immokalee Rd.	New 2-Lane Road (Expandable to 4 Lanes)
7	Camp Keais Rd.	Pope John Paul Blvd.	Oil Well Road	Widen from 2 Lanes to 4 Lanes
8	Camp Keais Rd.	Immokalee Rd.	Pope John Paul Blvd.	Widen from 2 Lanes to 4 Lanes
10	CR 951 Extension	Collier Blvd. (CR 951) (northern terminus)	Lee/Collier County Line	New 2-Lane Road
13	Everglades Blvd.	Golden Gate Blvd.	Vanderbilt Beach Rd. Extension	Widen from 2 Lanes to 4 Lanes
14	Everglades Blvd.	I-75 (SR-93)	Golden Gate Blvd.	Widen from 2 Lanes to 4 Lanes
15	Golden Gate Blvd.	Everglades Blvd.	Desoto Blvd.	Widen from 2 Lanes to 4 Lanes
16	Golden Gate Blvd. Extension	Desoto Blvd.	Big Cypress Parkway	New 4-Lane Road
18	Green Blvd.	Santa Barbara/Logan Blvd.	Sunshine Blvd.	Widen from 2 Lanes to 4 Lanes
19	Green Blvd. Extension (16th Ave. SW)	23rd St. SW	Wilson Blvd. Extension (Corridor Study)	New 2-Lane (Future Study Area)
20	Green Blvd. Extension (16th Ave. SW)	CR 951	23rd St. SW (Corridor Study)	New 4-Lane (Future Study Area)
21	Green Blvd. Extension (16th Ave. SW)	Wilson Blvd. Ext	Everglades Blvd. (Corridor Study)	New 2-Lane Road
27	I-75 (SR-93) Interchange (new)	Vanderbilt Beach Rd.		New Interchange - Partial (to/from the north)

Table 6-5. 2045 LRTP Unfunded Roadway Needs

Map ID	Project	From	To	Project Description
30	Immokalee Rd. (CR 846)	Camp Keais Rd.	Carver St.	Widen from 2 Lanes to 4 Lanes
32	Keane Ave..	Inez Rd.	Wilson Blvd. Extension	New 2-Lane Road (Future Study Area)
34	Logan Blvd.	Green Blvd.	Pine Ridge Rd.	Widen from 4 Lanes to 6 Lanes
35	Logan Blvd.	Vanderbilt Beach Rd.	Immokalee Rd.	Widen from 2 Lanes to 4 Lanes
38	Oil Well Road / CR 858	Ave. Maria Entrance	Camp Keais Rd.	Widen from 2 Lanes to 6 Lanes
40	Orange Blossom Dr	Airport Pulling Rd.	Livingston Rd.	Widen from 2 Lanes to 4 Lanes
43	Randall Blvd.	Everglades Blvd.	Desoto Blvd.	Widen from 2 Lanes to 4 Lanes
44	Randall Blvd.	Desoto Blvd.	Big Cypress Parkway	New 4-Lane Road
45	Santa Barbara Blvd.	Painted Leaf Ln..	Green Blvd.	Widen from 4 Lanes to 6 Lanes
67	Veterans Memorial Blvd. Extension	Strand Blvd.	I-75	New 4-Lane Road
68	Big Cypress Parkway Intersection (new)	Oil Well Grade Rd.		New At-Grade Intersection
70	Green Blvd. Extension	Everglades Blvd.	Big Cypress Parkway	New 2-Lane Road
73	Immokalee Rd. (CR 846) Intersection	Collier Blvd. (CR 951)		Major Intersection Improvement
75	I-75 (SR-93) Interchange (new)	Veterans Memorial Blvd.		New Partial Interchange
76	Vanderbilt Dr.	Immokalee Rd.	Woods Edge Parkway	Widen from 2 Lanes to 4 Lanes

6-2 Bicycle and Pedestrian Projects

The BPMP noted in Chapter 4 is a systems plan that focuses on identifying the needs and a policy framework for prioritization and implementation of bicycle and pedestrian projects. Further, it provides maximum flexibility in bringing projects forward for funding and offers design guidelines based on best practices that implementing agencies may use as guidance. Therefore, implementation of these projects is more thoroughly addressed through the individual agencies and the MPO bicycle and pedestrian advisory process.

The BPMP provided planning-level project costs for the bicycle and pedestrian projects presented in Chapter 4. These costs did not include costs for ROW or drainage. An engineering cost estimate would be required for submission of a project for prioritization consideration.

Table 6-6 lists the costs associated with priority projects presented in Chapter 4 (Table 4-9) and the figure in Appendix C (Existing + Proposed). These costs are by order of magnitude and are for constructing different combinations of bicycle and pedestrian facilities on the road segments associated with the bicycle and pedestrian priority projects. It is anticipated that this process will be continued throughout the period of the long-range transportation plan, with an annual updating of priorities for inclusion in the TIP by the BPAC.

A total of \$41.46 million in TMA/TA (or SU/TALU) Funds is dedicated for future pedestrian and bicycle projects in the 2045 LRTP update:

- Planning Period 2026 to 2030 - \$10.42 Million for CST
- Planning Period 2031 to 2035 - \$10.39 Million for CST
- Planning Period 2036 to 2045 - \$20.65 Million for CST

Table 6-6. Costs of Priority Bicycle and Pedestrian Projects by Mileage Totals

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

Source: Collier MPO 2020 Bicycle and Pedestrian Master Plan

6-3 Transit Cost Feasible Projects

Similar to the development of roadway cost feasible projects, the cost feasible transit projects were developed by estimating the costs associated with each project in the transit needs.

Transit Cost Assumptions

Numerous cost assumptions were made to forecast transit costs for 2021 through 2045. Costs include annual service and technology/capital improvements that are programmed for implementation within the plan period. The following subsections summarize assumptions for capital and operating costs noted in the TDP.

Operating Cost Assumptions

Operating cost assumptions are based on a variety of factors, including service performance data from CAT and information from other recent Florida TDPs. These assumptions are summarized as follows:

- Annual operating costs for fixed-route and paratransit services are based on the most recent validated National Transit Database data.
- An annual inflation rate of 1.8 percent was used for all operating cost projections, with the exception of FY2029 Federal Transit Authority Section 5307 funds, which increased more than 100 percent because of the cost of extending service span on several routes (lumped into 1 year within the 10-year window of the TDP).
- Annual operating costs for future service enhancements are based on the projected annual service hours and cost per revenue hour of \$82.32 for fixed-route service and \$63.91 for paratransit service (both in 2018 dollars).
- Implementing the new route alignments represents increased levels of service in such improvements as Route 14, 19/28, and Route 23 with no additional costs.
- Express routes and MOD would not require complementary Americans with Disabilities Act (ADA) paratransit services if implemented.

Capital Cost Assumptions

Service assumptions were also developed to estimate the costs for capital needs described in Chapter 4 and are summarized as follows:

- Replacement of vehicles within the existing fleet that have reached the end of their useful life and vehicles to implement new service.
- Vehicles are assumed to cost \$495,000 for fixed-route bus and \$71,217 for paratransit vehicles. Between 2020 and 2045, it is estimated that 71 fixed-route vehicles and 88 paratransit vehicles will need to be purchased.
- An annual growth rate of 1.8 percent was used for capital cost projections.
- A 20-percent spare ratio was factored into the vehicle replacement and expansion schedule.
- A useful life for bus and paratransit vehicle replacement is 12 years and 7 years, respectively.
- Bus shelter expenses were assumed to be the same funding levels obtained from the FY2021 Collier County Government Requested Budget with an annual inflation rate of 1.8 percent.
- Technology costs were obtained from the draft budget for FY2020 Federal Transit Authority Section 5307 and 5339 Program of Projects Draft budget.

Based on the funding availability and prioritized results, the transit cost feasible projects are summarized in [Table 6-7](#) and illustrated in [Figure 6-8](#).

Table 6-7. 2045 Transit Needs Summary

Route Location	TDP 2021–2030		LRTP 2031–2045	
	Funded	Operating/Capital Cost (YOE)	Funded	Operating/Capital Cost (YOE)
Proposed Realignment Changes				
Route 11 – Extend to Walmart Shopping Center	X	\$0/\$0		
Route 12 – Extend to Walmart Shopping Center	X	\$0/\$0		
Route 13 and 14 – Realign from one-way pair to two bidirectional routes	X	\$0/\$0		
Routes 17 and 18 – Combine portion of the two routes along and remove service along Tamiami Trail	X	\$0/\$0		
Routes 19 and 28 – Realign unproductive segments and combine service hours with Route 28 for increased frequency	X	\$0/\$0		
Route 20 and 26 – Combine to improve frequency and streamline service.	X	\$0/\$0		
Route 21 (Marco Island Express) – Provide express service to the Walmart Supercenter on Collier Blvd. and Tamiami Trail				
Route 22 – Realign to streamline circulation in Immokalee and extend service to high employment centers				
Route 23 – Realign to provide direct connections to residential cluster on Lake Trafford Road, and Farm Workers Way				
Route 25 (NS and EW) – Extend NS service and no change to ES service				
Route 27 (NS and EW) – Extend NS service south and the EW service east				

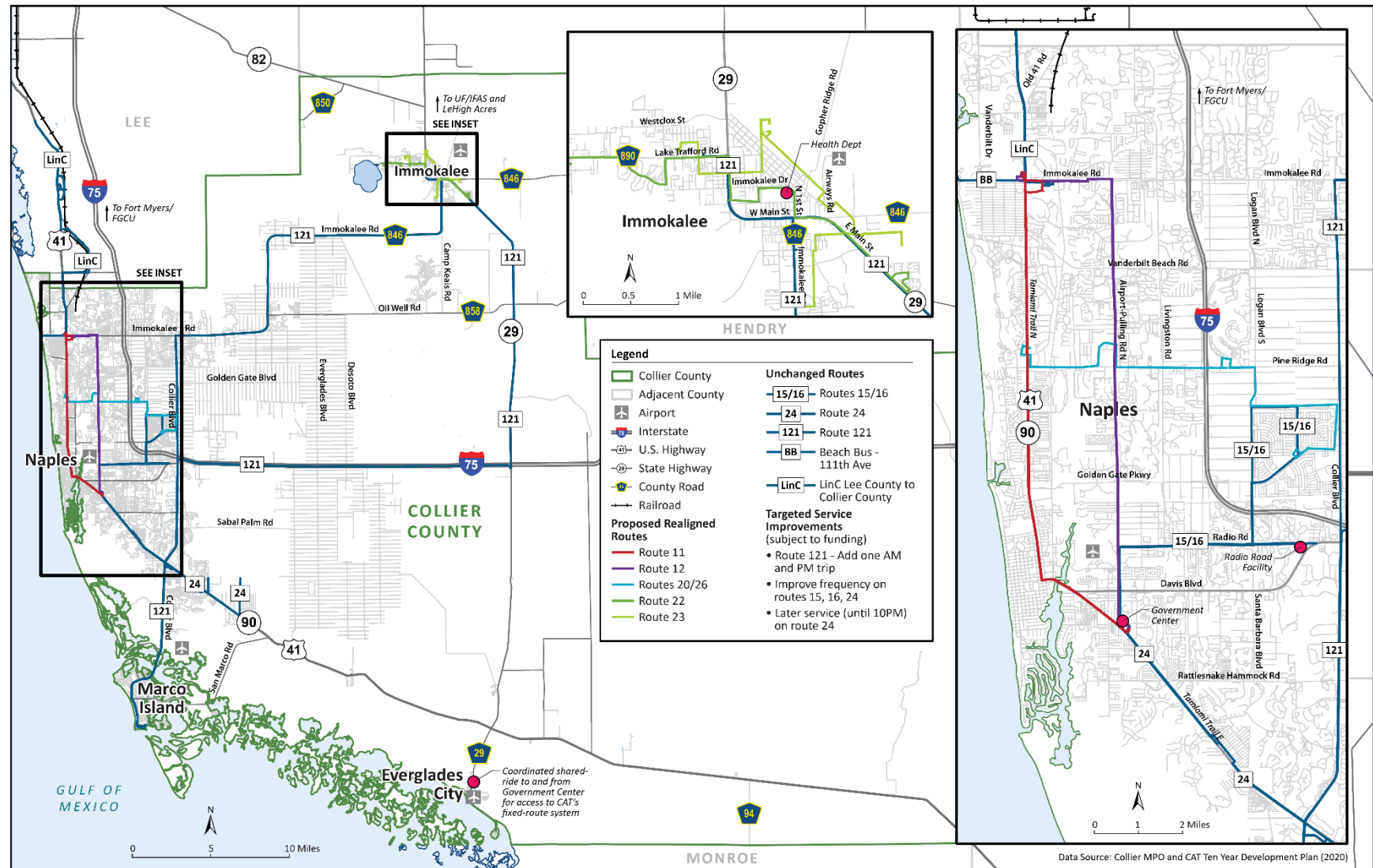
Table 6-7. 2045 Transit Needs Summary

Route Location	TDP 2021–2030		LRTP 2031–2045	
	Funded	Operating/Capital Cost (YOE)	Funded	Operating/Capital Cost (YOE)
Proposed Frequency Changes				
Route 11 – 30 min to 20 min			X	\$17,215,415/\$0
Route 12 – 25/90 min to 30 min and 60 min at off-peak			X	\$7,460,013/\$0
Route 13 – 40 min to 30 min				
Route 14 – 60 min to 30 min				
Route 15 and 16 – 90 min to 45 min				
Route 19/28 – 165 min to 60 min				
Route 23 – 60 min to 40 min	X	\$3,805,909/\$1,016,470		
Route 24- 85 min to 60 min	X	\$204,376/\$503,771		
Route 121 – Add two morning and evening trips during peak periods	X (Partial – one AM and one PM)	\$163,066/\$503,771		
Proposed Span Improvements				
Route 11, 13, 14, 17/18, 1 – Extend to 10 p.m.	X	\$1,808,329/\$0		
Route 19/28, Route 24 – Extend to 10 p.m.				
Proposed New Service Routes				
Island Trolley				
New UF/IFAS and Lehigh Acres Route				
I-75 Premium Express				

Table 6-7. 2045 Transit Needs Summary

Route Location	TDP 2021–2030		LRTP 2031–2045	
	Funded	Operating/Capital Cost (YOE)	Funded	Operating/Capital Cost (YOE)
Bayshore Shuttle				
Downtown Autonomous Circulator				
Naples Pier Electric Shuttle				
Mobility-On-Demand				
Vanpooling (Everglades City)				
Capital Infrastructure				
Regionwide Technology	X (Partial)	\$0/\$2,720,920		
Security – driver protection barriers	X	\$0/\$153,080		
Bus Stop Infrastructure				
Technical Studies	X	\$0/\$100,000		
Improve ADA Accessibility				
Replace and Add New Vehicles				
Park-and-Ride Lots				

Figure 6-8. 2045 Transit Cost Feasible Plan Projects Map



6-4 Freight Network Projects

FDOT updated its Freight Mobility and Trade Plan (FMTP) in April 2020.¹ The FMTP is a comprehensive plan that identifies freight transportation facilities critical to the state's economic growth and guides multimodal freight investments in the state. The FMTP identified freight hotspots as presented in **Figure 6-9**. Collier County has low to medium freight activity along the I-75 corridor. According to the data from the FMTP, there are two Freight Intensive Areas in the County: East Naples Industrial area and the Immokalee Airport Industrial area. A Freight Intensive Area is a cluster or group of freight facilities that generates, distributes, or attracts large amounts of freight activities and has a significant impact on Florida's transportation system and economy. Out of 70 Freight Intensive Areas within the state, the East Naples and Immokalee Airport areas ranked 42nd and 43rd, respectively, by total freight parcel floor area.

The FMTP *Technical Memorandum 6, Project Prioritization and Selection*² presents the methodology and the freight project selection and prioritization process. Noted on the list of prioritized projects in the FMTP as a low priority were the I-75 at CR 846 (Immokalee Road) and I-75 at Pine Ridge Road interchange modification projects. All projects listed in Table 6-1, 2045 SIS Cost Feasible Projects, are part of the Regional Freight Mobility Corridors within the Collier MPO boundary (refer to Figure 4-4 in Chapter 4). A total of 20 of the cost feasible projects identified in this 2045 L RTP Update are on the freight network within Collier MPO boundary.

¹ <https://www.fdot.gov/rail/plandev/freight-mobility-and-trade-plan>

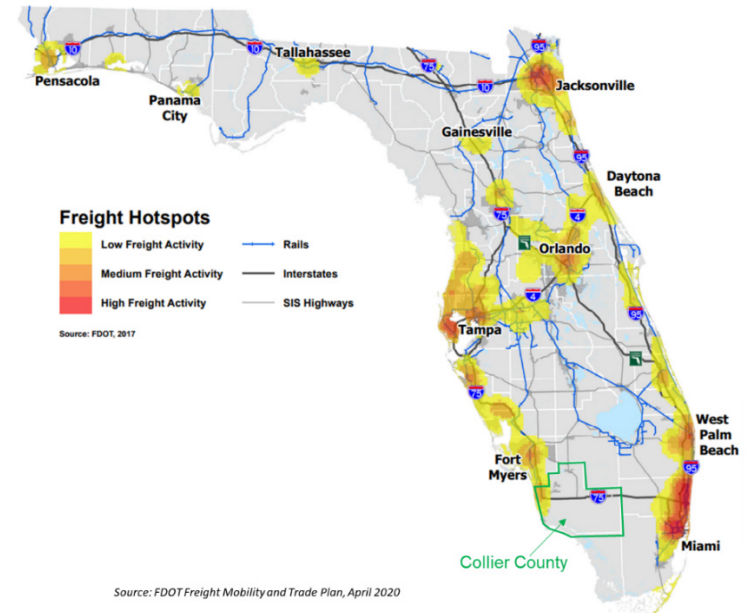


Figure 6-9. Freight Hotspot Locations

6-5 Airport Transportation Projects

As noted in Chapter 4, two off-airport transportation projects were identified in the roadway Needs Plan to improve access to Naples Airport and Immokalee Regional Airport. Project no. 31, Immokalee Road from Airpark Boulevard to SR 29, has been identified as cost feasible for construction in FY2036 to FY2045. The project includes widening Immokalee Road from two to four lanes and will improve traffic operations and access to the industrial warehouses within the property of the Immokalee Regional Airport. Approximately \$7.2 million has been dedicated to this off-airport roadway project in the Cost Feasible Plan using County funds.

² https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/rail/fmtp/april-2020/fmtp-tm6_project-prioritization-and-selection.pdf

EXECUTIVE SUMMARY
REPORTS & PRESENTATIONS
ITEM 8A

FDOT D1 Districtwide Pedestrian-Bicycle Active Transportation Plan

OBJECTIVE: For the Committee to receive a presentation from FDOT D1 on the Districtwide Pedestrian - Bicycle Active Transportation Plan.

CONSIDERATIONS: Deborah Chesna, District Pedestrian-Bicycle Coordinator, will brief the Committee on a new FDOT D1 initiative to create a Districtwide Pedestrian - Bicycle Active Transportation Plan.

STAFF RECOMMENDATION: That the Committee receives a presentation from FDOT D1 on the Districtwide Pedestrian - Bicycle Active Transportation Plan.

Prepared By: Anne McLaughlin, MPO Director

EXECUTIVE SUMMARY
REPORTS & PRESENTATIONS
ITEM 8B

Everglades City Bike / Ped Master Plan

OBJECTIVE: For the Committee to receive a presentation on the Everglades City Bike / Ped Master Plan.

CONSIDERATIONS: The Everglades City Council adopted its first Bike / Ped Master Plan (**Attachment 1**) on October 6, 2020. Patty Huff and Dayna Fendrick will give a presentation on the Plan at the Committee meeting. The MPO's 2019 Bicycle / Pedestrian Master Plan acknowledges on p5 that the Everglades City plan, when adopted, will be included in the MPO's BPMP by reference.

The Office of Greenways & Trails referenced the pending City Council action on their Trail Town website: <https://floridadep.gov/parks/ogt/content/trail-town-responses>

STAFF RECOMMENDATION: That the Committee receives a presentation on the Everglades City Bike / Ped Master Plan.

Prepared By: Anne McLaughlin, MPO Director

Attachment 1: Everglades City Bike / Ped Master Plan



EVERGLADES CITY BIKE /PEDESTRIAN MASTER PLAN

AUGUST 2020

INTRODUCTION/BACKGROUND

EXISTING CONDITIONS

PROPOSED SIDEWALKS & BIKE LANES

LOCAL/REGIONAL CONNECTIONS

COMMUNITY BENEFITS/SUPPORT

SUMMARY

City of Everglades

Mayor Howie Grimm

City Clerk Dottie Joiner

City Council

Elaine Middelstaedt

Parker Oglesby

Tony Pernas

Tim Smith

Vicky Wells

Bike/Pedestrian Committee

Patty Huff, Collier MPO Bike/Ped Advisory
Committee

Dayna Fendrick, Urban Green Studio

Kathy Brock, Publisher Mullet Rapper

Tim Brock, Brock Risk Assessment & Value Eng.

Tara Saathoff-Wells, Research Asst. Prof. Penn
State University.

Carol Ogilvie, Land Use Consultant

INTRODUCTION / BACKGROUND

History of Everglades City

The town of Everglade was settled in the late 1800s by early pioneers who fished and farmed the area. They also traded goods with the Seminoles who lived throughout south Florida. When Barron Gift Collier arrived by boat in 1921 to examine the citrus farm at nearby Deep Lake, he immediately saw the potential of this “undiscovered” part of Florida and purchased the town from the Storter family in 1922 and the town of Everglade (“s” was added later) was founded in 1923 as the first county seat for Collier County. Barron Collier immediately started laying out a plan for developing his new town as the center of commercial activity for the construction of the last section of the Tamiami Trail between Naples and Miami. The county courthouse was built in the center of town with businesses lining West Broadway with the first bank in the county just two blocks away and across from the famed Rod & Gun Club where guests enjoyed dinners prepared by a Bavarian chef. Homes and office buildings were built for the growing population and there were laundry services, a post office, administration building, a hospital, a grocery, barbershop, drugstore, the Manhattan Mercantile department store, a machine shop, a sawmill, boatyard, recreation hall, bowling alley, church and school. Collier brought in a battery-powered streetcar and founded the Tamiami Trailways to provide bus transportation to Naples and Ft. Myers. There was a movie house and beautiful landscaping throughout town. The benefits and amenities of a company town were apparent.



Demographic Background

Everglades City is a true small town, with a population consisting of both permanent local residents- many of whom are fifth and sixth generation – and seasonal residents who come here for the environment, and the low-key, authentic character of the place. Both the population and the economy are seasonal in nature, with the stone crab season running from October 15 through May 1, and many of the winter residents arriving in November and departing after Easter.

- Local population: 426
- Median Age: 51
- Median HH Income \$61,000 (includes Retirees)
- Average Income Males \$34,000
- Average Income Females \$22,000
- Visitors Annually: Between 1 and 1.3 Million
- Cost of living: 50% of population from \$1000 to \$1900 / month for housing
- Median Housing Cost: \$1083/month
- Total Housing Units: 476
- Seasonal Units 293
- Owner Occupied 137
- Hotel Rooms: 96 plus an additional 20 recently completed at the Ivey House



Economic Conditions

The main economic drivers of Everglades City are:

- Ecotourism – kayaking, hiking, biking, airboats, swamp buggies
- Stone Crabbing
- Sport Fishing & Guides
- Heritage tourism
- State and National Parks visitation
- Restaurants/Accommodations/Services for all of the above



Everglades Area Communities

While this Bike/Ped Master Plan is primarily focused on facilities within the Everglades City jurisdictional limits, we are also considering connections to local neighboring communities such as Plantation Island, Chokoloskee, Copeland, Jerome and Ochopee. These communities are considered part of the “Everglades Area” and are economically connected to Everglades City. The children attend the Everglades City School, and many families have extended relations throughout the Everglades Area.

Existing Roadways and Drainage

Sea level rise and resiliency planning are a major topic of concern for Everglades City. The City was originally built in a low-lying area and was created by dredging and filling from the (now named) Barron River to raise the elevation. The town generally lies an average of 1 foot above sea level. During Hurricane Irma in September 2017, the entire town was submerged 4-5', which caused widespread damage from which the community is still recovering. Existing roadways were built at lower elevations, and frequently flood during big storm events or king high tides. The storm drainage system was also impacted by Irma and drainage pipes were plugged with mud. The City has currently solicited bids for removing the mud from the storm drainage pipes.

Bike/Ped improvements are linked to the roadways and drainage conditions; upgrades are often required to construct the sidewalks/bike lanes.

Florida Trail Town Program

Florida's Office of Greenways & Trails of the Department of Environmental Protection established a Trail Town Program in 2018 and designated Everglades City in January 2019.

Everglades City is surrounded by seven national and state parks and the area offers many outdoor sport activities, including fishing, kayaking, canoeing, bird watching, photography, hiking and biking. Everglades City is the gateway to the Ten Thousand Islands and an important hub for several paddling trails, including the Florida Circumnavigational Saltwater Paddling Trail. It is a place where trail users can venture off a hiking, biking, or paddling trail to enjoy the services and unique heritage of the community, benefiting the town economically and socially. The town is also bike-friendly as evidenced by bicycle racks and rentals in town and at the airport.

Everglades City School

The Everglades City School is the only public K-12 school in the state.

- Number of students: 170
- Percentage of students riding buses: 44%
- Percentage of students dropped off: 41%
- Percentage of students walk/bike/golf cart: 10%
- Percentage of students driving own car: 5%



EXISTING CONDITIONS

Everglades City was built in the traditional town manner, with blocks laid out on a grid and the circle in the middle of town anchored by important civic buildings. This layout provides the basis for a walk-able community, and with low traffic volumes and low speeds (15, 25 and 35 mph), it is already a pedestrian and bike-friendly area and short distances to public places in the central part of town. Safety is the number one concern for our mobility and with the thousands of tourists who visit our national and state parks every year, it is vital that the City (which is the hub of our parks with its many amenities) provide the necessary infrastructure to ensure the safety of our residents and visitors.



Since being designated a Florida Trail Town in January of 2019, Everglades City has made great strides in making improvements to appeal to trail users of all types, including developing maps for the area, installing bike racks at restaurants and public facilities around town and installing a bike repair station in McLeod Park. The sidewalks and bike lanes envisioned in this Master Plan will greatly enhance the safety, comfort and usability of our city streets to create a welcoming and enjoyable experience for our visitors, children and local residents.

NEEDS ASSESSMENT

A Bike/Pedestrian Committee was established in 2019, to assess the needs and set priorities for projects in the City. The primary goals are to create a local Bike/Ped network, and offer residents and visitors safe and accessible places to walk, bike, hike and jog. Since Everglades City's central area is conducive for visitors and residents to walk or bike, it is important to upgrade the roads and sidewalks in this area with appropriate bike/ped facilities

The Bike/Ped Committee met several times and made observations on the facilities needed. The intent was to conduct a survey to identify the potential users and types of facilities they would be comfortable utilizing, however COVID prevented that this year. In lieu of a formal survey, the Committee used their collective local knowledge to identify the different types and nature of walkers/riders/paddlers.



- Local permanent residents – for exercise, to get to work, to run errands – some casual, some serious
- Seasonal residents – Walkers, bike riders, mostly casual riders, many from RV Parks, to access local destinations, run errands, exercise
- ENP – local bike tours, day-trippers
- Regular long-distance bike tour groups - 72 hrs to Key West, Ends of Earth Cycling, etc.
- Individual cross-state bike riders that stop in
- Day-trip excursions on bike – from Marco, Port of the Islands to have lunch
- Historic walking tours, Museum events
- Multi-activity tourists – people who want to kayak, bike, hike, fish, bird-watch
- School kids- more facilities would encourage kids to walk or ride bike to school



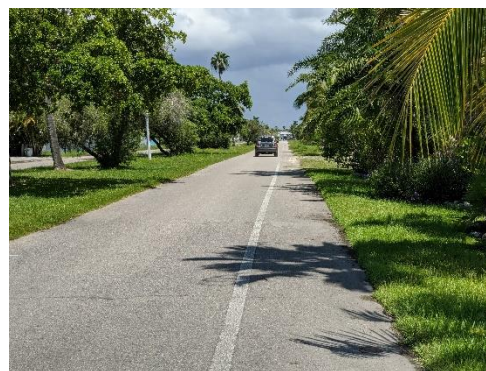
CURRENT SIDEWALKS & BIKE LANES

PHASE 1: Copeland Avenue North Bike Lanes and Collier Avenue Sidewalk.

Completed in 2006, these two projects were the last known improvements funded by the MPO. For purposes of reference, we have designated these two projects as PHASE 1 of the Bike/Ped Master Plan.

- **Copeland Avenue North Bike Lanes**

The edges of the roadway were striped as bike lanes on both east and west sides of Copeland Ave, beginning at Begonia St and continuing south to the Circle/Broadway Ave, City Hall and McLeod Park. This area of town is primarily residential and Copeland Avenue with its wide median was the original main artery into Everglades City when built by Barron Collier in the 1920s.



- **Collier Avenue Sidewalk**

A six-foot wide sidewalk was built on the west side, connecting from Begonia Street to Broadway Avenue, ending in front of City Hall. This sidewalk provides a connection from the north commercial area to the center of town. There is a one-block gap at the beginning of the sidewalk, between Begonia Street and the Everglades Isle RV Resort.



Plantation Parkway Paved Shoulder

A paved / striped shoulder exists on the south side of Plantation Parkway, which connects from Copeland Avenue South to the

“bend” on Plantation Parkway. Being a constricted causeway surrounded by mangroves, there is not room to add a paved shoulder on the north side.

Chokoloskee Causeway Pathway

This separated pathway connects from the southern City limits, across the newly completed Chokoloskee Bridge to the entry to Chokoloskee, ending in front of Outdoor Resorts. The pathway is approximately 5 feet in width, but varies due to grass encroachment. It is heavily used by both permanent and seasonal residents and multiple types of users, including walkers, runners, casual cyclists and people fishing or kayaking off the sides of the causeway. Currently, the restricted width does not allow for 2-way multi-use traffic to pass comfortably.

PROPOSED SIDEWALKS & BIKE LANES

PHASE 2 PROGRAMMED SIDEWALK: Copeland Avenue South

This sidewalk is programmed along the east side of Copeland Avenue South as FDOT project #437096-1. The sidewalk is to replace the existing asphalt sidewalk which is in very poor and deteriorated condition. The project is currently under design and is scheduled for construction in FY 2022. This sidewalk will connect from the Circle south to the City limits, terminating approximately in front of the Diving Pelican Restaurant (formerly the Oyster House).

PHASE 3 MPO /FDOT APPLICATION 2019: Broadway Ave, Hibiscus Ave, Copeland Ave South

Phase 3 of the Everglades City Bicycle / Pedestrian Master Plan (Exhibits A and F) will connect businesses and public places in central downtown Everglades City and provide a non-motorized connection to Everglades Airpark and the Everglades National Park. These bike lanes and sidewalks will provide a safe connection to the central businesses, City Hall, McLeod Park, the Public Dock on the Barron River, the Everglades Community Church, and the Museum of the Everglades which currently conducts guided Walking Tours on Broadway Avenue and Hibiscus Street; sidewalks will provide safety for visitors to this county Museum.

- **Broadway Avenue**

Bike Lanes - Reduce 4 vehicular lanes to 2 lanes and convert the outer lane to a buffered bike lane, from Collier Ave (CR 29) to Riverside Dr.

Sidewalks - Add sidewalks from the Circle to Riverside Dr (north and south sides). The sidewalk would also continue from the existing sidewalk in front of City Hall, around the Circle where it would



connect to the Phase 2 Project #437096-1 on Copeland Ave South (CR29). Crosswalk striping around the Circle to connect the various segments.

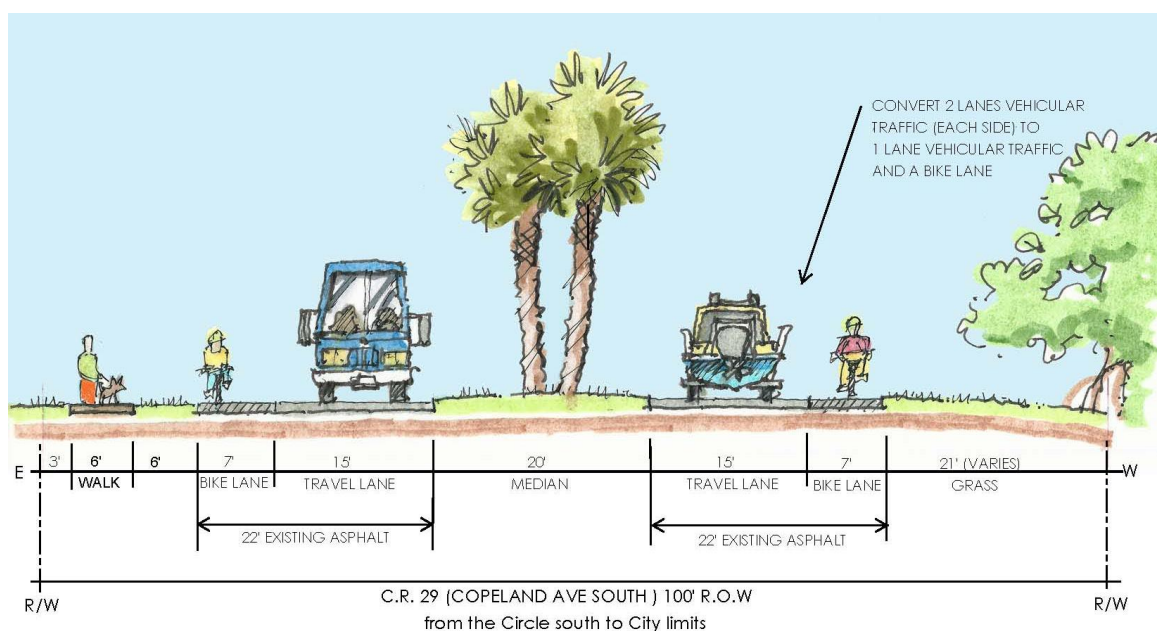
■ Hibiscus Avenue

Bike Lanes - Stripe the edges with bike lanes (existing pavement is extra wide for 2 lanes) from Collier Ave (CR 29) to Broadway Ave.

Sidewalks - Add sidewalks around McLeod Park, starting from the current sidewalk in front of City Hall, going north on Copeland Ave to Hibiscus St, then west, (south side only) to N. Storter Ave, then south to West Broadway. An alternate route for the sidewalk on Broadway Ave in case of conflict at the Bank building would cross N. Storter Ave and continue on the north side of Hibiscus to West Broadway Ave.

■ Copeland Avenue South (CR29)

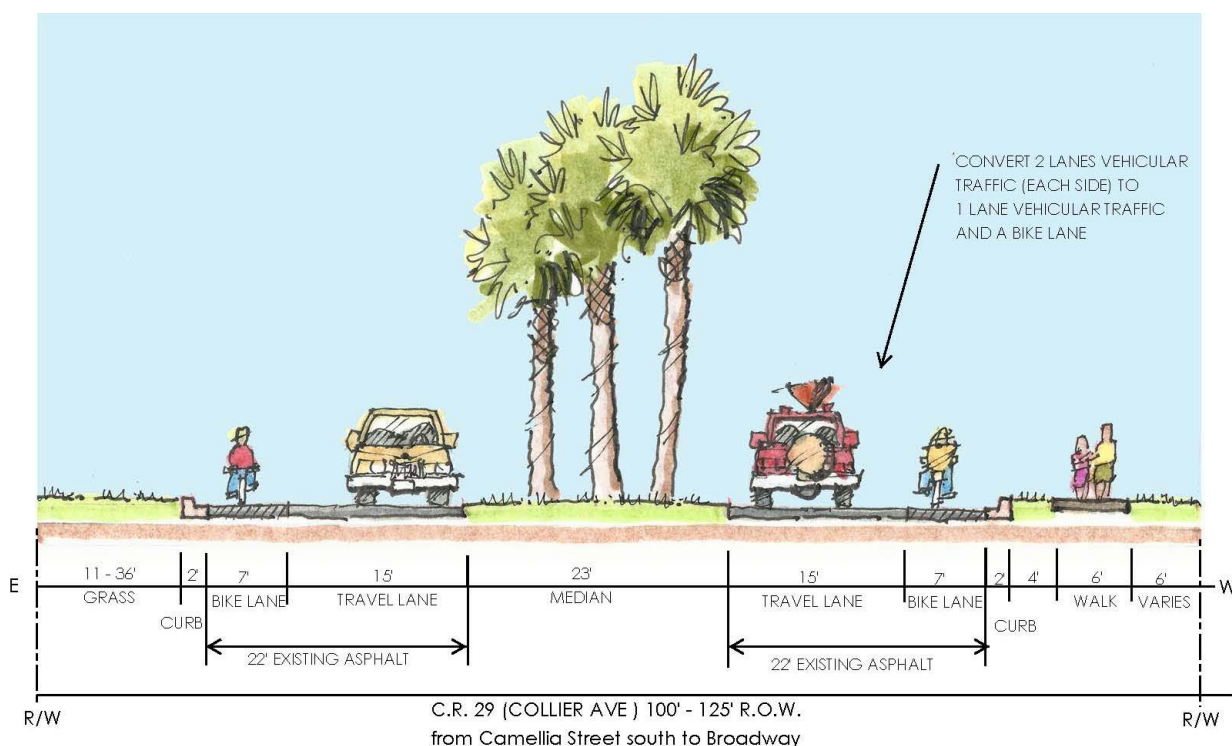
Bike Lanes - Reduce 4 vehicular lanes to 2 lanes and convert the outer lane to a buffered bike lane, from Broadway Ave connecting south to the Everglades Airpark and the Everglades National Park Gulf Coast Visitor Center, terminating at the City limits. These bike lanes will tie into the existing paved shoulders which continue across the Chokoloskee Causeway.



At the time of the Phase 3 Application submittal, discussions were ongoing between Everglades City and Collier County regarding the maintenance responsibility of CR 29 through town. It was determined that Collier County is responsible for the maintenance of the roadway. The County has since scheduled re-surfacing and re-striping work for the roadway, which could coincide with the improvements for the Copeland Ave South (CR 29) portion of the application. Thus, the bike lanes may be implemented through Collier County Maintenance rather than through MPO funding. In addition, the same cross-section proposed for Copeland Ave South could be extended north on Collier Avenue (CR29), from Broadway to Camellia Street, where the current 4-lane starts.

▪ **Collier Avenue (CR 29)**

Possible extension of the same cross-section to reduce 4 lanes to 2 lanes with a buffered bike lane from Broadway Ave north to Camellia Street, by Collier County Maintenance.



PHASE 4 – NORTH COMMERCIAL AREA

Future plans will evaluate the needs of connecting establishments (restaurants, hotels, RV parks, churches and Post Office) in the north end of town where visitors and residents currently walk and bike on the major roads. This phase will also consider Datura Street (from CR29/Collier Avenue to the Everglades City School) which was requested on a previous MPO application. This phase

should also include closing the gap of the sidewalk between the Everglades Isle RV Resort and Begonia Street.



Informal overflow parking typically occurs on the edges of Begonia St and Camellia St. in front of the restaurants and will have to be considered in selecting the appropriate bike/ped facilities for this area.

The roadways in this area are prone to flooding after a heavy rain or high tide, and the drainage issues will need to be solved in order for bike/ped improvements to be accomplished. Many potholes and eroded areas emerge after water stands for a few days. Bike/ped facilities should be planned as part of the road reconstruction process.



The gap in the sidewalk along Collier Avenue will be addressed as part of this Phase of work.

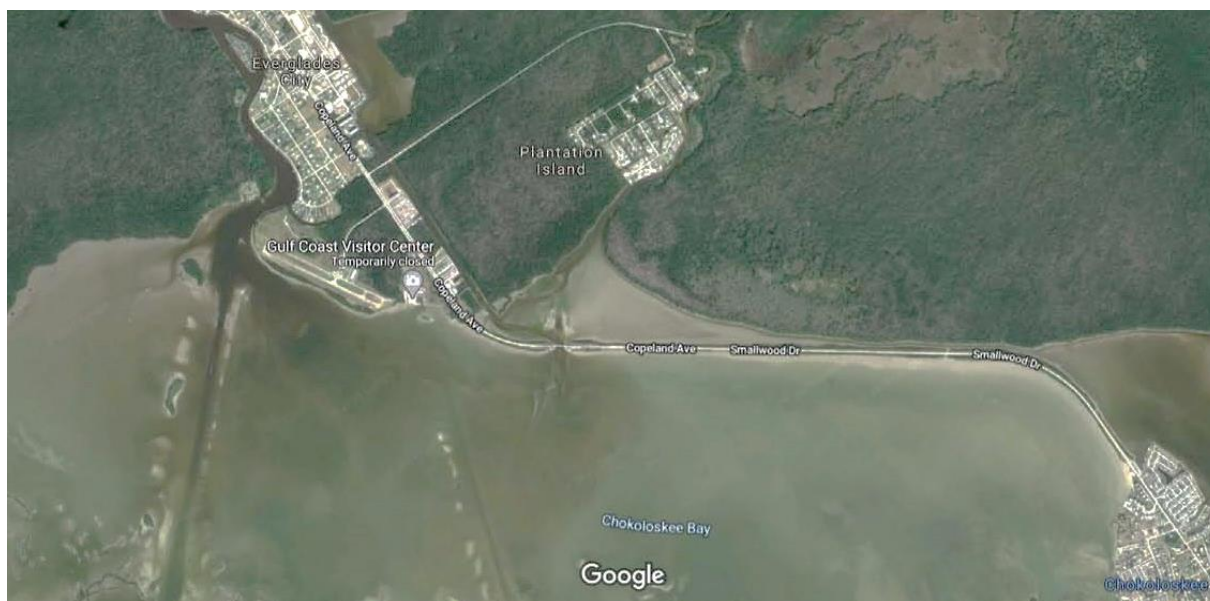


PHASE 5 – CHOKOLOSKEE CAUSEWAY LINEAR PARK

This project will propose an upgrade of the current separated pathway along Copeland Avenue connecting Everglades City to Chokoloskee. Recommendations include widening of the current pathway and provide a linear park with shelters, picnic tables, benches, shade trees and landscaping to allow a more enjoyable experience for cyclists and pedestrians who often travel between the two communities. Since the new bridge was completed in 2018, it provides much better bike and pedestrian facilities, and it would be beneficial to provide additional amenities for the many people and families who fish at the bridge.

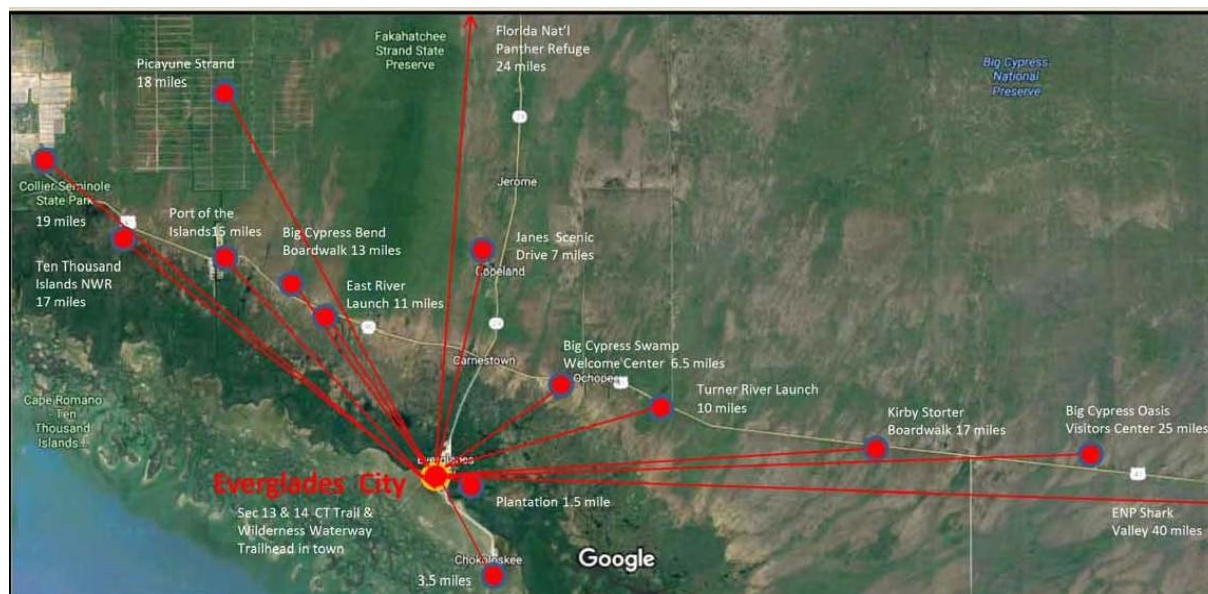


The Causeway Linear Park will provide an important connection to the historical assets, restaurants and paddling trail access points on Chokoloskee. It is a family -friendly length at 2.5 miles and offers great water views across Chokoloskee Bay.



LOCAL/REGIONAL CONNECTIONS

Everglades City is one of the few remaining coastal towns in Florida that continues to offer Old Florida charm. Ideally located as the “hub” of seven national and state parks and preserves, Everglades City offers the amenities that visitors and residents seek as they enjoy our natural environment and take advantage of the many recreational activities. Naples and Marco Island are 25-30 miles to the west and the outskirts of Miami are 60 miles to the east, all connected by the Tamiami Trail which is the southernmost road for long-distance cyclists biking to the Florida Keys from the west coast; there are several organized charity rides along this corridor each year. In addition, SR 29 is becoming the preferred route for long-distance cyclists to continue north to avoid the urban traffic of Naples.



The sidewalks and bike lanes envisioned in this Master Plan will enhance the appeal of Everglades City as an eco-tourist destination as well as a bike-friendly place to stay and explore.

An intriguing opportunity exists in the form of the old Railroad right-of-way which connects from Everglades City to Copeland/Fakahatchee Strand. A potential Rails-to-Trails could be developed on the old r.o.w. The property is currently under private ownership, so it would take a great deal of coordination with a willing partner to accomplish. This trail connection would provide a safer, more enjoyable route to the Fakahatchee Strand. The existing paved shoulders on SR 29 provide access for cyclists who are comfortable riding on the road, but the trail would be more pleasant for families and casual riders.

COMMUNITY BENEFITS / SUPPORT

A well-developed system of sidewalks and bike paths will provide additional economic benefits to our local businesses and will complement the historical and cultural assets of the community.

- Museum – The Museum of the Everglades is one of the most successful museums in Collier County (total of 5 throughout the county). It attracts over 25,000 visitors a year, including people from all over the world.
- Visitor Center – On February 1, 2020, a new Visitor Center located in Everglades City was opened to the public with over 100 guests attending the ribbon cutting ceremony. Unfortunately, it was forced to close due to the coronavirus later in the year but is expected to re-open as soon as it is safe to receive the public.
- Historic structures/ Heritage tourism/ walking tours – Visitors to Everglades City are captivated by the history and historical structures throughout the City. The Museum offers guided walking tours around town. Bicycle tours are also provided during the year.
- Eco-tourism of all types – The primary draw to Everglades City and its surrounding area is eco-tourism (paddling/hiking) and fishing. Millions of visitors come each year to see the wildlife and the Everglades and enjoy the serenity it provides.
- McLeod Park, heart of town activities – McLeod Park is the center of activity for the Everglades community with its new children's playground, tennis courts, basketball courts, picnic tables, visitor information map, dolphin bike rack, and a bike repair station.
- Bike racks distributed to various businesses around town – After Everglades City was designated by the State as a Florida Trail Town, bike racks were purchased and made available to all restaurants, motels, and other public places.
- Benefit to restaurants/lodging – Everglades City, Chokoloskee and Ochopee provide a wide selection of restaurants and lodging (www.visitevergladescity.com). Providing more sidewalks and safe bicycling around town and the community will benefit all businesses, especially restaurants and lodging facilities.
- Try to capture more overnight stays than day trippers on the bus – An opportunity exists to entice people to stay longer in the Everglades City area. Transit services would be beneficial to the parks and Everglades City.
- We are ideally located to provide support services to explore the nearby Parks – Everglades City and the area offer all the amenities to those visiting the surrounding state and national parks/preserves.



SUMMARY

This Bike/Pedestrian Master Plan is meant to lay out a vision for improvements that will serve our residents and visitors in a way that provides a comfortable, safe and memorable experience, as well as create economic benefits to the local businesses and community.

EXHIBITS

Bike/Ped Master Plan graphic (Exhibit A)
Phase 3 Photo sheets and Diagram (Exhibit F)






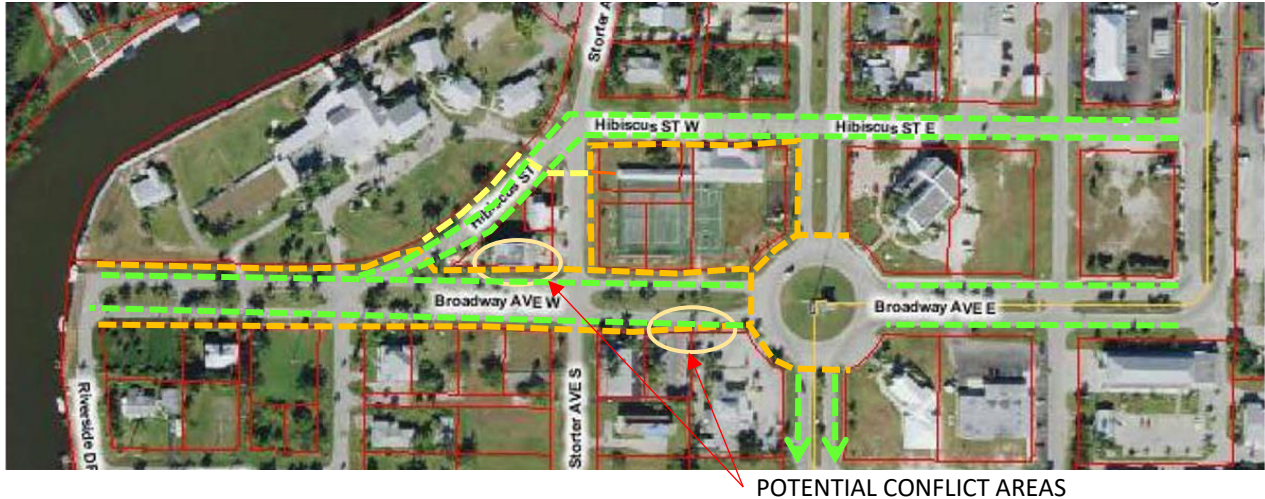
EVERGLADES CITY PHASE 3 BIKE/PED PROJECT PHOTOS

Broadway Avenue, Hibiscus Street and Copeland Avenue South

EXHIBIT F

August 2019

Sidewalks  Alternate route 
Bike Lanes 



BROADWAY AVE - NORTH LANE LOOKING WEST



View from near Circle

Open area along McLeod Park allows sufficient room for sidewalk

Striped-off bike lane



POTENTIAL CONFLICT AT BANK BUILDING

Drainage structure, existing sidewalk at lower grade, ramp at building may conflict w/ sidewalk

Provide alternate route or alternate construction method (boardwalk, etc)

Striped-off bike lane

BROADWAY AVE - SOUTH LANE LOOKING WEST



POTENTIAL CONFLICT AT
SUSIE'S RESTAURANT WALL

Remove approx. 15' of wall
that encroaches into r.o.w.
to allow for sidewalk

Striped off bike lane



Open area along vacant lot
and the former Glades Bldg
allows room for sidewalk

Striped-off bike lane



Old sidewalk exists along
vacant lot – may be
historic in nature; may
remain or be replaced

Striped off bike lane

HIBISCUS STREET LOOKING WEST



View from near Collier Ave
(CR 29)

Striped-off bike lane each side



View from intersection
at Copeland Ave North

Sidewalk proposed on
south side only along
McLeod Park

Striped-off bike lane
each side



View from intersection
of Hibiscus & N. Storter

Alternate route for
sidewalk around Bank
bldg. in case of conflict
along Broadway

Sidewalk along west
edge of McLeod Park
on N. Storter

Striped-off bike lanes
on Hibiscus

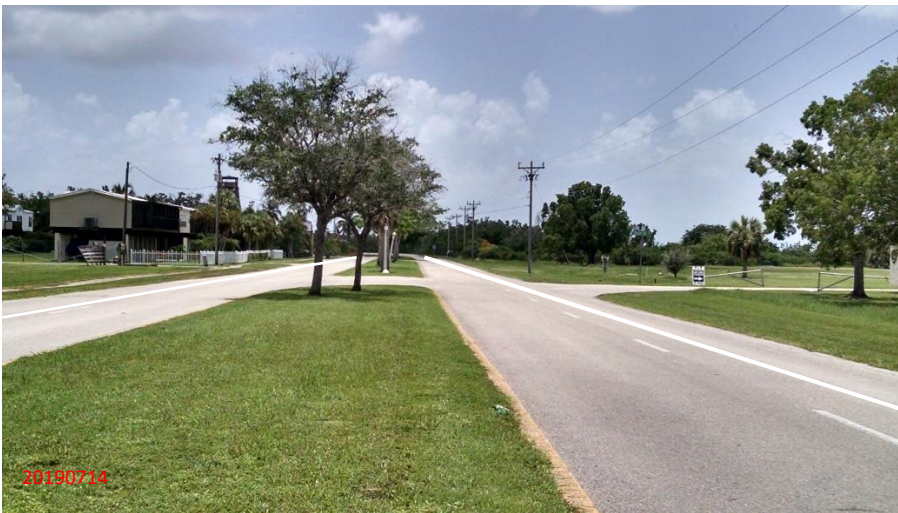
COPELAND AVENUE SOUTH (CR 29) LOOKING SOUTH



View from near Circle

Striped-off bike lane
each side

Some reconstruction
of edges may be
required due to
depressions, pot-
holes, etc.



Near Everglades National Park
entry

Striped-off bike lane each side

Will reduce vehicular travel
lanes to 2 lane divided (one
lane each side)



South end of project at
City limits - tie into
existing bike lanes that
continue onto the
Chokoloskee Causeway

Striped-off bike lane each
side

EXECUTIVE SUMMARY
REPORTS & PRESENTATIONS
ITEM 8C

Public Meetings Under Governor's Phase 3 Reopening

OBJECTIVE: For the Committee to receive a report on public meetings under the Governor's Phase 3 reopening.

CONSIDERATIONS: This is to follow-up on a request for information from a Committee member. **Attachment 1** is a communication MPO staff received from Len Price, Department Head, County Administrative Services Department, regarding Executive Order 20-244 (**Attachment 2**) regarding the Governor's Phase 3 reopening of the State. Although the Governor subsequently issued Executive Order 20-246 (**Attachment 3**) extending the suspension of rules governing quorums during the COVID-19 pandemic through the end of October, the communication from Ms. Price is indicative of the stance the County will take beginning in November.

Ms. Price states that "...a physical quorum must be present to hold an official meeting. Providing a quorum is physically present, those in the room may pass a motion to allow other board members to attend remotely through a finding that an extenuating circumstance exists." The communication goes on to state that the County Manager is authorizing continued remote access for public input through the end of the calendar year.

STAFF RECOMMENDATION: That the Committee receives a report on public meetings under the Governor's Phase 3 reopening.

Prepared By: Anne McLaughlin, MPO Director

Attachment 1: September 29, 2020 email, Director, County Administrative Services Department

Attachment 2: EO 20-244 Phase 3 reopening

Attachment 3: EO 20-246 extending virtual meetings until 12:01 a.m. November 1, 2020

September 29, 2020

Subject: Public Meeting - Phase 3

With the issuance of Executive Order 20-244, Florida moves into Phase 3 of post pandemic response. With this, the Governor is not expected to further continue waiving the requirement for a physical quorum at public meetings.

What does that mean for us?? Effective October 1, a physical quorum must be present to hold an official meeting. Providing a quorum is physically present, those in the room may pass a motion to allow other board members to attend remotely through a finding that an extenuating circumstance exists.

There is nothing, however, preventing remote/virtual participation by the public and, in an effort to promote physical distancing and reduce the spread of COVID-19, the County Manager is authorizing continued remote access for public input through the end of the calendar year.

Such a meeting should continue to be advertised as a Hybrid Remote Meeting.

Please let me know if you have any questions or concerns. Thank you.

Respectfully,

Len Golden Price
Department Head



3299 East Tamiami Trail, Ste 601
Naples, Florida 34112
239.252.8450
Len.Price@colliercountyfl.gov

STATE OF FLORIDA

OFFICE OF THE GOVERNOR

EXECUTIVE ORDER NUMBER 20-244

(Phase 3; Right to Work; Business Certainty; Suspension of Fines.)

WHEREAS, on March 9, 2020, I issued Executive Order 20-52 declaring a state of emergency for the entire State of Florida as a result of COVID-19; and

WHEREAS, on April 29, 2020, I issued Executive Order 20-112 initiating Phase 1 of the Safe. Smart. Step-by-Step. Plan for Florida's Recovery; and

WHEREAS, on May 14, 2020, I issued Executive Order 20-123 for Full Phase 1; and

WHEREAS, on June 3, 2020, I issued Executive Order 20-139 initiating Phase 2 of the Safe. Smart. Step-by-Step. Plan for Florida's Recovery.

WHEREAS, the State of Florida has suffered economic harm as a result of COVID-19-related closures, exacerbating the impacts of the State of Emergency, and Floridians should not be prohibited by local governments from working or operating a business.

NOW, THEREFORE, I, RON DESANTIS, as Governor of Florida, by virtue of the authority vested in me by Article IV, Section (1)(a) of the Florida Constitution and Chapter 252, Florida Statutes, and all other applicable laws, promulgate the following Executive Order:

Section 1. Phase 3

This order supersedes and eliminates any and all restrictions of Executive Orders 20-112, 20-123 and 20-139, as well as Executive Orders 20-192, 20-214 and 20-223, except as modified herein.

Section 2. Right to Work and Operate a Business

No COVID-19 emergency ordinance may prevent an individual from working or from operating a business. This preemption is consistent with Executive Order 20-92.

Section 3. Restaurants

Pursuant to Chapter 252, including sections 252.36(5)(b), (g) and (h), Florida Statutes, and in order to safeguard the economic vitality of this state, any restaurant may operate as set forth below.

- A. Restaurants, including any establishment with a food service license, may not be limited by a COVID-19 emergency order by any local government to less than fifty percent (50%) of their indoor capacity. If a restaurant is limited to less than one hundred percent (100%) of its indoor capacity, such COVID-19 emergency order must on its face satisfy the following:
 - i. quantify the economic impact of each limitation or requirement on those restaurants; and
 - ii. explain why each limitation or requirement is necessary for public health.
- B. Nothing in this order preempts or supersedes a non-COVID-19 municipal or county order.

Section 4. Suspension of COVID-19-related Individual Fines and Penalties

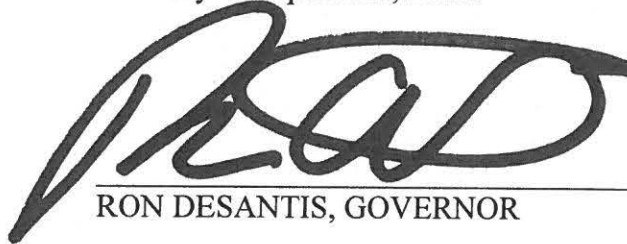
This order, consistent with Executive Order 20-92, suspends the collection of fines and penalties associated with COVID-19 enforced upon individuals.

Section. 5 Effective Date

This order is effective immediately.



IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Florida to be affixed, at Tallahassee, this 25th day of September, 2020.



RON DESANTIS, GOVERNOR

ATTEST:



SECRETARY OF STATE

FILED
2020 SEP 25 PM 4:06
TALLAHASSEE, FLORIDA

STATE OF FLORIDA

OFFICE OF THE GOVERNOR

EXECUTIVE ORDER NUMBER 20-246

(Emergency Management – COVID 19 – Local Government Public Meetings)

WHEREAS, Executive Order 20-69, as extended by Executive Orders 20-112, 20-123, 20-139, 20-150 and amended by Executive Orders 20-179 and 20-193, expires on October 1, 2020, unless extended.

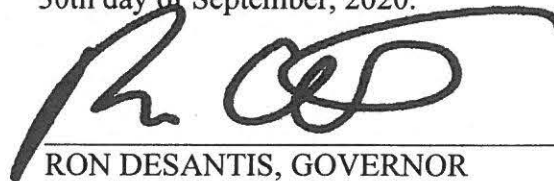
NOW, THEREFORE, I, RON DESANTIS, as Governor of Florida, by virtue of the authority vested in me by Article IV, Section (1)(a) of the Florida Constitution, Chapter 252, Florida Statutes, and all other applicable laws, promulgate the following Executive Order to take immediate effect:

Section 1. I hereby extend Executive Order 20-69, as extended by Executive Orders 20-112, 20-123, 20-139, 20-150 and amended by Executive Orders 20-179 and 20-193, subject to the condition of Section 2 below, until 12:01 a.m. November 1, 2020. This order supersedes Section 4 of Executive Order 20-69.

Section 2. This order shall not apply to election canvassing boards.



IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Florida to be affixed, at Tallahassee, this 30th day of September, 2020.


RON DESANTIS, GOVERNOR

ATTEST:


SECRETARY OF STATE

OFFICE OF THE GOVERNOR
TALLAHASSEE, FLORIDA

2020 SEP 30 PM 4:50

FILED

EXECUTIVE SUMMARY
DISTRIBUTION ITEMS
ITEM 10A

Revised Draft 2045 LRTP Chapter 4 Needs Plan

OBJECTIVE: For the Committee to receive a copy of the revised draft 2045 LRTP Chapter 4 Needs Plan.

CONSIDERATIONS: Committee members requested a copy of the revised Chapter 4 Needs Plan (**Attachment 1**) after reviewing proposed changes at their September meeting.

STAFF RECOMMENDATION: That the Committee receives a copy of the revised draft 2045 LRTP Chapter 4 Needs Plan.

Prepared By: Anne McLaughlin, MPO Director

Attachments:

1. Revised Draft Chapter 4 Needs Plan



Collier MPO

2045 Long Range Transportation Plan

Chapter 4 – System-wide Needs Assessment

Contents

Chapter 4 2045 Needs Plan.....	4-1
4-1 Needs Plan Overview	4-1
4-2 Roadway Needs.....	4-4
Existing Plus Committed Projects	4-6
Other Roadway Needs Considerations	4-12
Ranking the Roadway Needs	4-23
2045 Roadway Needs Results	4-27
4-3 Bicycle and Pedestrian Needs.....	4-39
Vision, Goals, and Objectives.....	4-39
Identification of Network Needs	4-40
Prioritized Bicycle and Pedestrian Facilities	4-41
Existing Plus Proposed Facilities	4-44
Local and Residential Roads.....	4-44
Local Agency Priorities on Local Roads.....	4-44
4-4 Transit Needs	4-45
Goals and Objectives.....	4-45
Development of Transit Needs	4-46
Transit Needs Results.....	4-49
4-5 Air Transportation Needs.....	4-55
Naples Airport	4-55
Immokalee Regional Airport	4-55
Marco Island Executive Airport.....	4-56

Everglades Airpark	4-56
Dade-Collier Training and Transition Airport.....	4-56

Tables

Table 4-1. 2045 Existing Plus Committed (E+C) Projects	4-8
Table 4-2. East of CR 951 Bridge Reevaluation Study Bridges.....	4-13
Table 4-3. TSPR Top Road Segment Crash Locations (2014–2018)	4-19
Table 4-4. Mitigation Strategies.....	4-24
Table 4-5. Potential Positive and Negative Effects Resulting from ACES Technologies	4-27
Table 4-6. 2045 Needs Plan List of Projects.....	4-29
Table 4-7. Network Gaps/Facility Needs	4-42
Table 4-8. Complete Streets – Safety Corridor Studies	4-42
Table 4-9. Prioritized Bicycle and Pedestrian Facilities	4-43
Table 4-10. Ridership and Growth Rates with No Improvements, 2021–2030 ^a	4-48
Table 4-11. Transit Needs Evaluation Measures	4-49
Table 4-12. 2045 Transit Needs Summary.....	4-50

Figures

Figure 4-1. FDOT Context Classifications	4-3
Figure 4-2. 2045 Existing Plus Committed (E+C) Project Map.....	4-7
Figure 4-3. 2045 E+C Travel Network Congestion Map.....	4-11
Figure 4-4. Freight Network and Activity Centers	4-15
Figure 4-5. Congestion Management Process Eight-Step Framework	4-16
Figure 4-6. TSPR Congestion Hot Spot Locations.....	4-17
Figure 4-6. TSPR Congestion Hot Spot Locations.....	4-17

Figure 4-7. 2019 and 2020 CMP ITS/Active Roadway Management Projects.....	4-22
Figure 4-8. Resiliency Planning Considerations	4-25
Figure 4-9. 2045 Needs Plan Project Map	4-28
Figure 4-10. Transit Network Service Needs	4-54

Chapter 4 2045 Needs Plan

4-1 Needs Plan Overview

The 2045 LRTP Needs Plan identifies the multimodal transportation projects needed to address existing and future transportation network deficiencies within the MPO's jurisdiction without considering funding limitations. Developing the Needs Plan is the starting point for understanding and prioritizing the region's overall transportation needs. However, once the applicable transportation revenues available to the Collier MPO are applied to the Needs Plan, the number of projects that can be constructed to address the needs becomes significantly reduced. Projects in the Needs Plan are evaluated by scoring each project using defined goals and objectives, and the evaluation criteria described in Chapter 3. The projects that rank the highest are focused on when selecting which projects to include in the Cost Feasible Plan. This process is explained further in the Cost Feasible Plan section of this document.

While the projects shown as transportation needs are not fiscally constrained, associated policy and environmental constraints exist. The following policy constraints are noted in the Collier County Growth Management Plan Transportation Element amended June 13, 2017:¹

- All future roadway capacity improvements shall include provisions for both bicycles and pedestrians.

- County facilities are to be maintained at a level of service (LOS) standard "D" or "E" as measured on a peak hour basis; LOS calculations are to be based on traffic experienced for 10 months of the year with peak seasonal and tourist months of February and March omitted.
- County roadways are constrained to a maximum of six lanes or when intensive land use development is immediately adjacent to roads. Roadways identified as constrained shall be subject to growth restrictions to not further degrade their LOS.
- The County will provide for the protection and acquisition of existing and future right-of-way (ROW). Sufficient ROW shall be acquired to facilitate arterial and collector roads as appropriate to meet the needs of the LRTP or other adopted transportation studies, plans or programs, appropriate turn lanes, medians, bicycle and pedestrian facilities, drainage canals, a shoulder sufficient for pull offs, and landscaping areas.
- The County is considering the viability of a Thoroughfare Corridor Protection Plan ordinance to preserve ROW for corridors or projects listed in the LRTP. This policy includes adoption of Corridor Preservation Maps and Tables and Critical Intersection Maps and Tables; and limits land uses within the corridors to direct incompatible land uses away from environmentally sensitive resources.
- Reduce vehicle miles traveled (VMT) and greenhouse gas emissions by providing for the safe movement of nonmotorized vehicles in new construction and reconstruction of roadways.

¹ <https://www.colliercountyfl.gov/home/showdocument?id=74327>

- Establish an integrated and connected road network to provide multiple, viable alternative travel modes or routes for common trips within the Northwest Transportation Concurrency Management Area (TCMA) and the East Central TCMA. Maintain 85 percent of the roadways within the TCMA at or above the County LOS standard.
- Transportation projects are to be pursued in a manner consistent with the findings of the County Annual Update and Inventory Report (AUIR).
- Encourage safe and efficient mobility for people traveling in rural areas that is compatible with the character of the County's rural areas. Examine the maintenance and operational needs of the rural roadway system, addressing the mobility needs of rural residents to include availability of roads for rural-to-urban travel, travel within the rural area, and for emergency evacuation purposes.
- Improve transit services for the transportation-disadvantaged in rural areas.
- Encourage the efficient use of transit services now and, in the future, consider intergovernmental efforts to coordinate public transit service between Naples and Bonita Springs in Lee County.

In September 2014, FDOT adopted the Statewide Complete Streets Policy (Topic No. 000-625-017-a). Additionally, the City of Naples and the Collier County Board of County Commission (BCC) approved Complete Streets Resolutions in November 2015 and January 2019, respectively. Complete Streets serve the transportation needs of users of all ages and abilities, including pedestrians, bicyclists, transit riders, motorists, and freight handlers. A transportation system based on Complete Streets principles can help to promote safety, quality of life, and economic development.

Complete Streets are context-sensitive, and the approach provides transportation system design that considers local land development patterns. Roadways are to be planned and designed to support the safety, comfort, and mobility of all users based on the unique context of each roadway. The FDOT context classification system broadly identifies the various built environments existing in Florida. Identifying the context classification is a preliminary step in planning and design, as different context classifications will have different design criteria.

The context classification of each roadway must be considered, along with its transportation characteristics and the built form to understand who uses or could use it, the regional and local travel demand of the roadway, and the challenges and opportunities of each roadway user. As shown on [Figure 4-1](#), FDOT defined eight context classifications that identify various built environments in Florida.

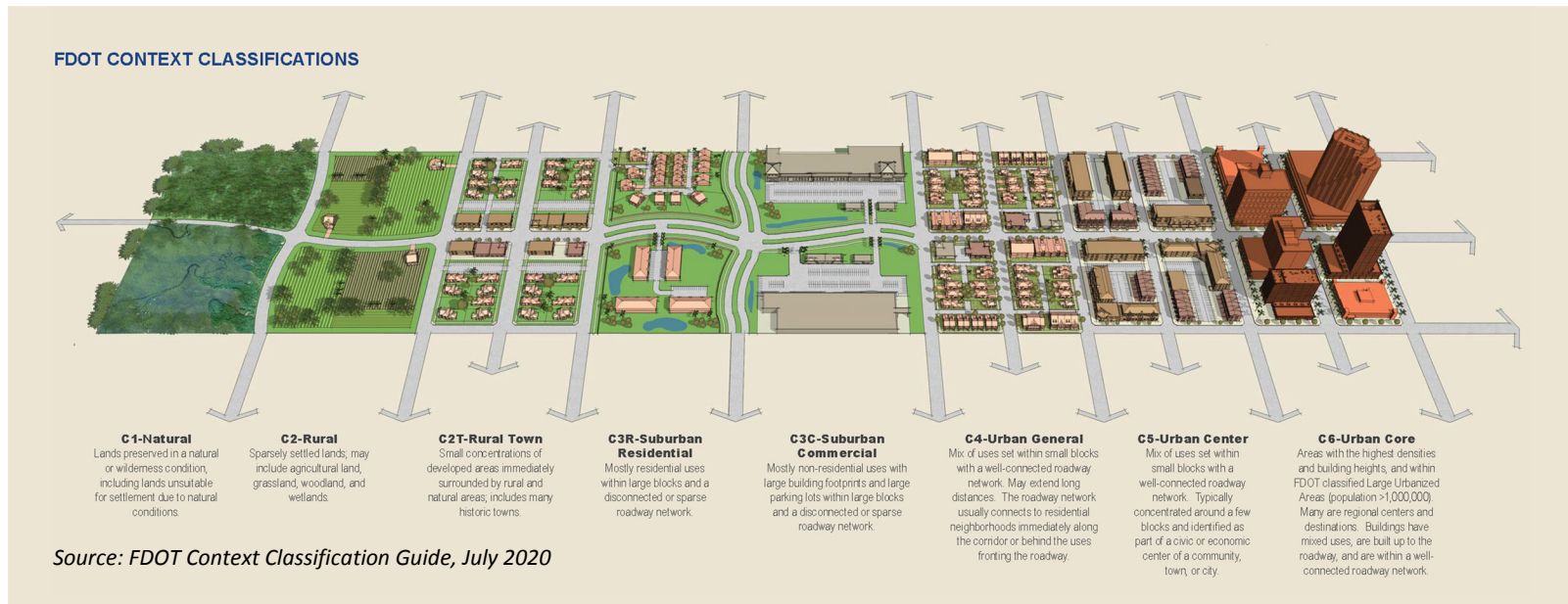


Figure 4-1. FDOT Context Classifications

The following policy constraints are noted in the *City of Naples Comprehensive Plan* Transportation Element amended October 20, 2010:²

- Evaluate proposed street improvements in Naples that may potentially increase through traffic volumes to protect residential neighborhoods.
- Maintain LOS C as a goal for the arterials and all major collectors, except for Fifth Avenue South between U.S. 41 and Gulf Shore Boulevard.
- Naples shall not permit construction of vehicle road overpasses or flyovers in favor of feasible alternative planning solutions that will improve the long-term traffic circulation patterns in the City.
- Evaluate programs to modify peak hour travel demand and reduce the number of VMT per capita.
- Assist the Southwest Florida Land Preservation Trust in acquiring necessary easements and funding for the design and construction of a greenway bicycle/pedestrian pathway.
- Maintain or reduce hurricane evacuation times.

²https://www.naplesgov.com/sites/default/files/fileattachments/planning/page/4451/comprehensive_plan_120613_201312060904513380.pdf

- Enhance the safety, connectivity, and mobility of existing and future pedestrian and bicycle pathways.
- Continue to coordinate with the Collier MPO to evaluate the potential for developing an efficient public transportation system and mechanisms to reduce the reliance on private motor vehicles.
- Establish a transportation mobility program to identify and implement strategies to reduce greenhouse gas emissions. Focus on programs, policies, and code adoptions that have a net impact of reduced travel delays, reduced vehicular trips, reduced vehicle trip length, and measures to improve the efficiency of travel.

Additionally, on November 7, 2014, the City of Naples adopted a resolution to support the Southwest Florida Blue Zones Project. The Southwest Florida Blue Zones Project works with community leaders to inspire positive sustainable changes to policy and built-environment to improve the well-being among the community. Such infrastructure as sidewalks and bike lanes improve the ability of community members to move naturally, connect socially, and access healthy food.

The following policy constraints are noted in the *City of Marco Island Comprehensive Plan* Transportation Element amended December 7, 2009:³

- Maintain designated LOS for arterial, collector, and local roads on Marco Island. Marco Island’s adopted LOS reflect generalized maximum daily volumes as derived from peak hour traffic conditions:

- Arterials: LOS D (except SR 951 from the Jolley Bridge to CR 92—LOS C)
- Collectors: LOS D
- Local Roads: LOS D

Finally, environmental constraints include conservation lands in the northeastern and southeastern parts of the County, wetlands, threatened and endangered species habitat, and primary and secondary canal systems throughout the County.

The 2045 Needs Plan incorporates all transportation modes, including roadway needs for motorists and freight, transit, bicycle, and walking or using a mobility device. The following sections detail the County needs for projects related to these transportation modes as well as technologies, such as ITS and CAV. This chapter breaks down the 2045 Needs Plan by Roadway Needs, Bicycle and Pedestrian Needs, and Transit Needs.

4-2 Roadway Needs

The initial approach to developing the list of roadway project needs included a review of the following plans:

- *Collier MPO 2040 Long Range Transportation Plan*, Amended May 25, 2018, and September 9, 2016
- *Collier MPO Transportation Improvement Program FY 2021 – FY 2025* (Adopted June 12, 2020)
- *Collier MPO Transportation System Performance Report & Action Plan Draft Baseline Report* (2020)

³https://www.cityofmarcoisland.com/sites/default/files/fileattachments/growth_management/page/5551/compplanpart1_2009.pdf

- *Collier MPO Transportation System Performance Report & Action Plan Draft Action Plan* (2020)
- *Collier MPO Congestion Management Process 2017 Update*
- *Collier 2040 LRTP Freight Congestion Considerations Technical Memorandum*
- *Collier MPO 2040 Long Range Transit Element*, November 2015
- *Collier MPO Local Road Safety Plan*, 2020
- *Collier MPO Transit Development Plan Major Update*, 2020
- *Collier Area Transit (CAT) Transit Development Plan FY 2019 Annual Progress Report*
- *Collier MPO Park and Ride Study*, 2020
- *Collier County Annual Update & Inventory Report/Capital Improvement Element Schedule Update on Public Facilities*, November 2019
- *Collier County Community Housing Plan*, October 24, 2017
- *National Oceanic and Atmospheric Administration Sea Level Rise Viewer*
- *Adaptation of Coastal Urban and Natural Ecosystems (ACUNE)* (pending)
- *Collier County Transportation Capital Improvement Program*, 2019
- *Collier County Airport Authority Immokalee Regional Airport, Airport Layout Plan Update*, August 2017
- *City of Naples Airport Authority, Naples Airport Master Plan*, February 29, 2020
- *FDOT Strategic Intermodal System 2029 – 2045 Long Range Cost Feasible Plan*
- *FDOT Strategic Intermodal System Funding Strategy First Five Year Plan Multi-Modal FY 2020/2021 through FY 2024/2025*
- *FDOT Strategic Intermodal System Funding Strategy Second Five Year Plan Multi-Modal FY 2025/2026 through FY 2029/2030*
- *FDOT Freight Mobility and Trade Plan*, April 2020
- *FDOT Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use Vehicles*, September 2018
- *University of South Florida Center for Urban Transportation Research (CUTR) Autonomous Vehicle (AV) and Alternative Fuel Vehicle (AFV) Florida Market Penetration Rate and VMT Assessment Study*, October 2019.
- *U.S. Department of Transportation Preparing for the Future of Transportation: Automated Vehicles 3.0*, October 2018

Additional approaches to developing the Needs Plan included collaboration with regional partners including the Lee County MPO, coordination with the Collier County Transportation Traffic and Planning Divisions, scenario planning analysis, travel demand modeling, and soliciting and incorporating public input. Further, several coordination meetings with the TAC and CAC were held during the development of the Needs Plan.

Existing Plus Committed Projects

As described in Chapter 2, the initial list of project needs was developed by first modeling the E+C travel network. The E+C network includes all new road or capacity projects that have been implemented since 2015 (existing), plus all projects that have construction funded in the 2023 FDOT Five Year Work Program. The E+C characterizes the transportation network expected to be in place by the year 2023 (constructed or funded for construction). **Figure 4-2** and **Table 4-1** present the E+C roadway projects in graphic and tabular formats, respectively.

FDOT modeled the E+C travel network using the D1RPM travel demand model and the 2045 socioeconomic data discussed in Chapter 2. The modeling result helped identify deficiencies in the roadway network and showed which roadway segments were expected to be congested in 2045 if no further improvements were made to the surrounding network.

Congestion was measured using the ratio of the forecasted traffic volume in Average Annual Daily Traffic (AADT) to the capacity of the roadway segment (at LOS D), referred to as the volume to capacity (V/C) ratio. A roadway is considered over capacity if the V/C ratio greater than 1.0.

Figure 4-3 presents the anticipated roadway congestion in 2045 if no improvements to the network are made beyond the E+C projects. The roadway facilities predicted to experience high ($V/C = 1.15$ to 1.5) and significant ($V/C > 1.5$) levels of congestion in 2045 are listed in the following text.

2045 Facilities with High Degree of Congestion ($V/C = 1.15$ to 1.5)

- US 41 north of Immokalee Road
- Immokalee Road east of Airport Road N
- Immokalee Road east of I-75

- Immokalee Road west of I-75
- Immokalee Road east of Collier Boulevard to Randall Boulevard
- Immokalee Road north of Stockade Road
- Immokalee Road from SR 29 to Camp Keas Road
- Randall Boulevard east of 8th Street NE
- Oil Well Road between Everglades Boulevard and Oil Well Grade Road
- SR 29 north of Westclox Road
- Everglades Boulevard north of Oil Well Road
- Pine Ridge Road east of Livingston Road
- Old 41 Road east of US 41/Tamiami Trail to Lee County
- Vanderbilt Beach Road west of US 41
- Intersection at Collier Boulevard and Golden Gate Parkway
- Collier Boulevard north of Golden Gate Parkway
- Santa Barbara Boulevard north of Rattlesnake Hammock Road
- Park Shore Drive west of Clayton Road
- I-75 north of Immokalee Road
- Intersection at I-75 and Immokalee Road
- Intersection at I-75 and Pine Ridge Road
- Intersection at I-75 and Golden Gate Parkway

2045 Facilities with a Significant Degree of Congestion ($V/C > 1.5$)

- Collier Boulevard north of Pine Ridge Road
- Golden Gate Boulevard from east of 16th Street SE to Everglades Boulevard
- SR 29 (N 15th Street) at the intersection of Westclox Road

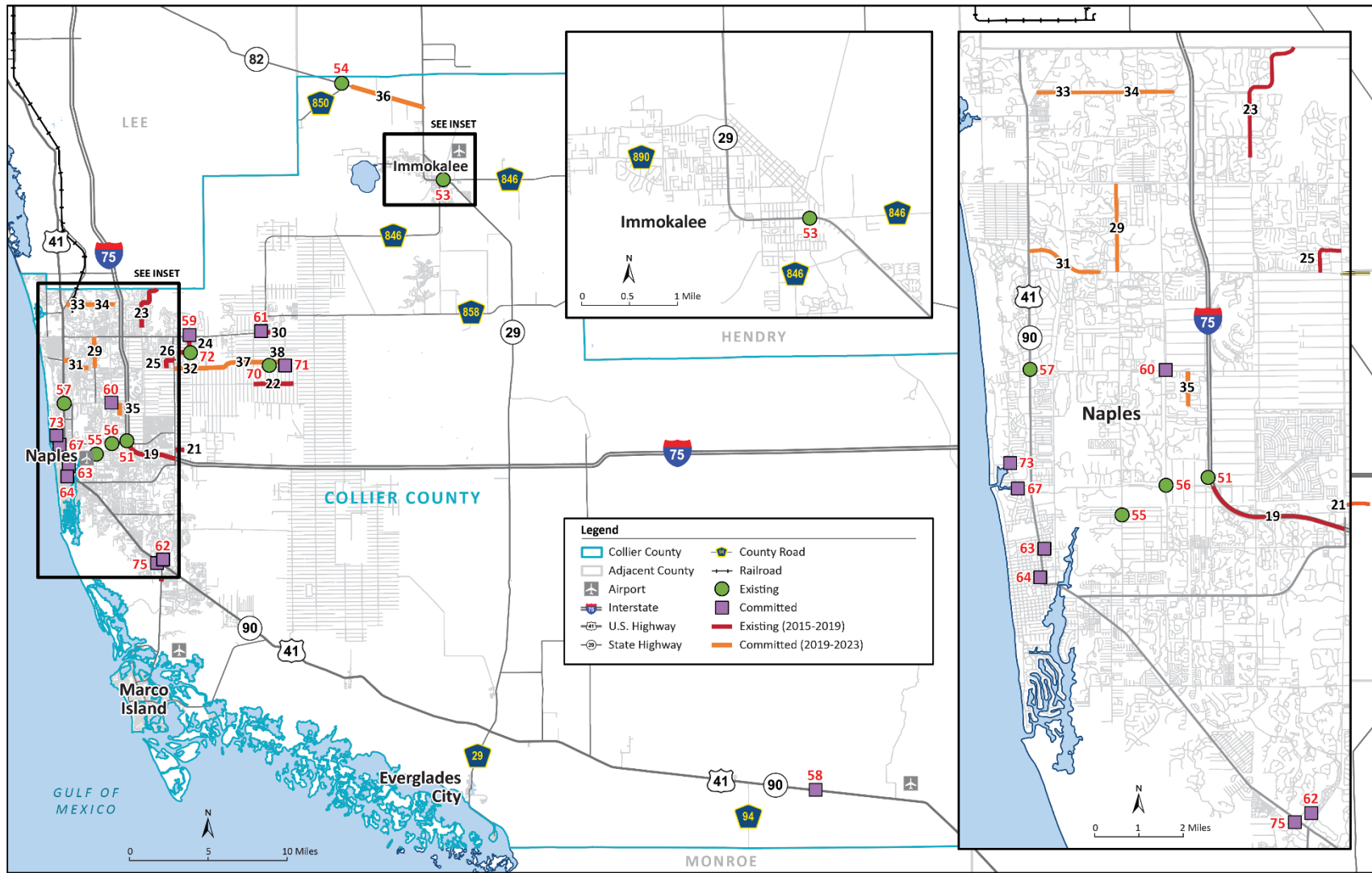


Figure 4-2. 2045 Existing Plus Committed (E+C) Project Map

Table 4-1. 2045 Existing Plus Committed (E+C) Projects

Map ID	Roadway	From	To	Improvement	Agency or Municipality	Included in 2019–2023 TIP?
Existing (2015–2019)						
19	I-75	North of SR 951	Golden Gate Pkwy	Widen from Four to Six Lanes	FDOT FPN: 406313-4	N/A
20	SR 951	Manatee Road	North of Tower Rd	Widen from Two to Four Lanes	FDOT FPN: 435111-2	N/A
21	City Gate Blvd. Extension	White Lake Blvd.	East of Brennan Dr	New Four-Lane Facility	Collier County	N/A
22	Golden Gate Blvd.	Wilson Blvd.	20th St.	Widen from Two to Four Lanes	Collier County	N/A
23	Logan Blvd.	North of Immokalee Rd.	Lee County Line	New Two-Lane Facility	Collier County	N/A
24	Massey St./Woodcrest Dr.	Calusa Pines Dr.	Immokalee Rd.	New Two-Lane Facility	Collier County	N/A
25	Pristine Dr.	Wolfe Rd.	Vanderbilt Beach Rd	New Two-Lane Facility	Collier County	N/A
26	Tree Farm Rd.	Davila St	Massey St	New Two-Lane Facility	Collier County	N/A
51	I-75	Golden Gate Parkway SB Off Ramp	-	Interchange Improvements	FDOT FPN: 429907-1	N/A
53	SR 29	Jefferson Avenue	9th Street	Add Turn Lanes	FDOT FPN: 431390-2	N/A
54	SR 82	Corkscrew Road	-	Add Turn Lanes	FDOT FPN: 433175-1	N/A
55	Airport Pulling Rd.	North Horseshoe Dr.	-	Intersection Improvements	Collier County	N/A
56	Golden Gate Pkwy.	Livingston Rd.	-	Intersection Improvements	Collier County	N/A
57	Pine Ridge Rd.	US 41	-	Intersection Improvements	Collier County	N/A
70	8th Street Bridge			New Bridge	Collier County	N/A

Table 4-1. 2045 Existing Plus Committed (E+C) Projects

Map ID	Roadway	From	To	Improvement	Agency or Municipality	Included in 2019–2023 TIP?
Committed (2019–2023)						
29	Airport Pulling Rd. ^a	Vanderbilt Beach Rd.	Immokalee Rd.	Widen from Four to Six Lanes	Collier County	Yes
30	Randall Blvd.	Immokalee Rd.	8th St.	Widen from Two to Four Lanes	Collier County	Yes
31	Vanderbilt Beach Rd.	US 41	East. of Goodlette-Frank Rd.	Widen from Four to Six Lanes	Collier County	Yes
32	Vanderbilt Beach Rd. Extension ^a	Collier Blvd.	Curry Canal	Widen from Two to Six Lanes	Collier County	Yes
33	Veterans Memorial Blvd.	Old US 41	Secoya Reserve Cir	New Four-Lane Facility	Collier County	Yes
34	Veterans Memorial Blvd.	Secoya Reserve Cir	Strand Blvd.	Widen from Two to Four Lanes	Collier County	Yes
35	Whippoorwill Lane	Pine Ridge Rd.	Stratford Ln	Widen from Two to Four Lanes	Collier County	Yes
36	SR 82	Gator Slough Lane	SR 29	Widen from Two to Four Lanes	FDOT FPN: 430849-1	Yes
37	Vanderbilt Beach Rd. Extension ^a	Curry Canal	Wilson Blvd.	New Four-Lane Facility	Collier County	Yes
38	Vanderbilt Beach Rd. Extension ^a	Wilson Blvd.	16th St.	New Two-Lane Facility Expandable to Four Lanes	Collier County	Yes
58	US 41	Oasis Visitor Center	-	Add Left-Turn Lane	FDOT FPN: 441975-1	Yes
59	Immokalee Rd.	Woodcrest Dr.	-	Intersection Improvements	Collier County	Yes
60	Pine Ridge Rd. ^a	Livingston Rd.	-	Intersection Improvements	Collier County	Yes
61	Randall Blvd. ^a	Immokalee Rd.	-	Intersection Improvements	Collier County	Yes

Table 4-1. 2045 Existing Plus Committed (E+C) Projects

Map ID	Roadway	From	To	Improvement	Agency or Municipality	Included in 2019–2023 TIP?
62	Triangle Blvd. ^a	Celeste Dr.	-	Roundabout Implementation	Collier County	Yes
63	10th St.	5th Ave North	-	Roundabout Implementation	City of Naples	Yes
64	3rd Ave. South	8th St. South	-	Roundabout Implementation	City of Naples	Yes
67	Mooring Line Dr.	Crayton Rd.	-	Roundabout Implementation	City of Naples	Yes
71	16th Street Bridge	16th St.	16th St.	New Bridge	Collier County	Yes
73	Crayton Rd.	Harbour Dr.	-	Roundabout Implementation	City of Naples	Yes
75	Price St. ^a	Waterford Dr.	-	Roundabout Implementation	Collier County	Yes

Sources: FDOT Collier County Five Year Work Program FY 2019-2023, Collier County AUIR Five Year Work Program FY 2019-2023, Collier County One-Cent Sales Surtax Website

^a Collier One-Cent Sales Surtax Transportation Project

Note:

FPN = Financial Project Number

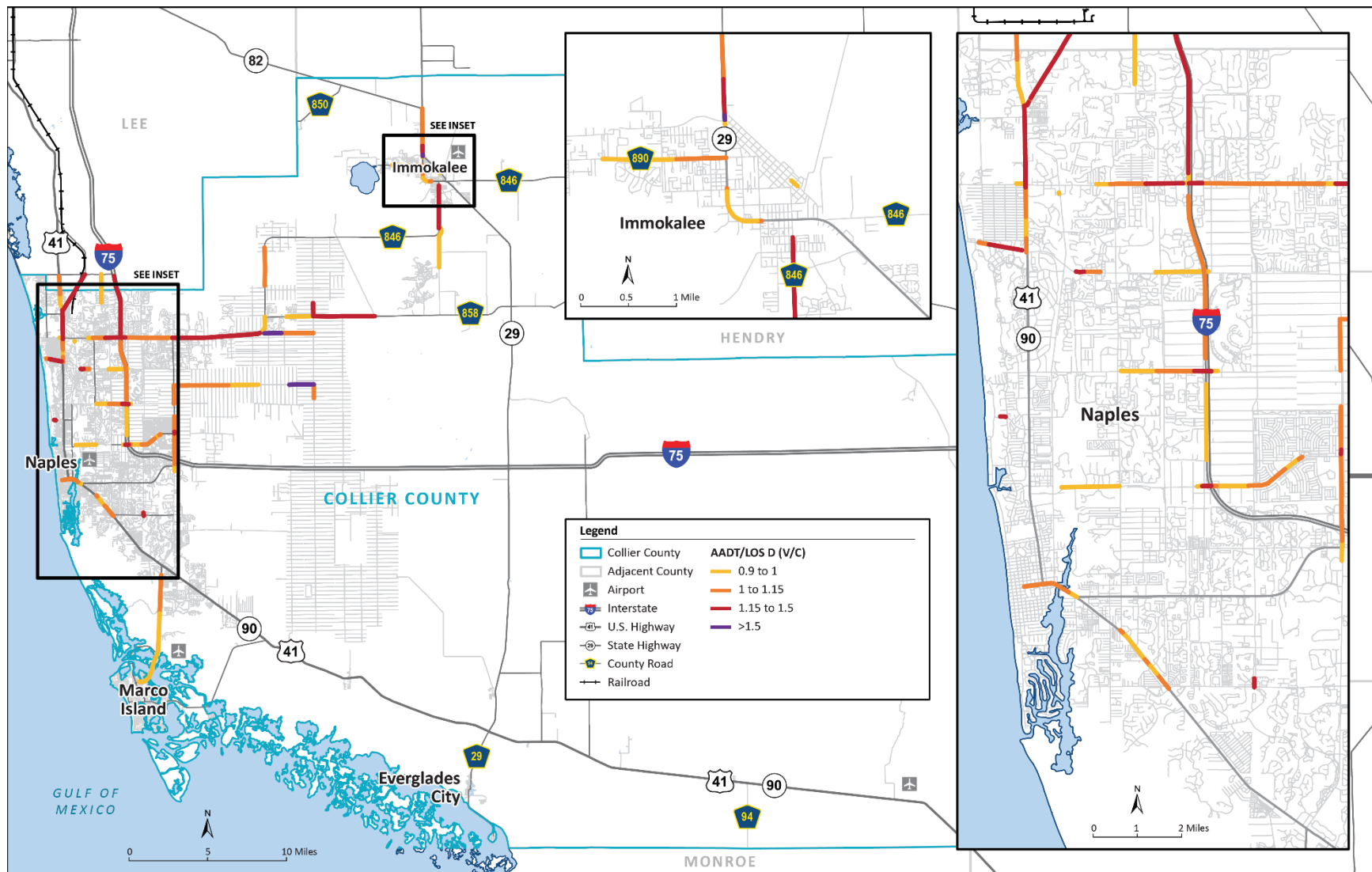


Figure 4-3. 2045 E+C Travel Network Congestion Map

Other Roadway Needs Considerations

Once the initial list of roadway projects needs was developed based on the E+C roadway deficiency modeling, other roadway-related needs data were evaluated to develop a more comprehensive project needs list. Considerations included review of existing planning studies, freight needs, and congestion management strategies, which included safety issues and Transportation Systems Management and Operations (TSM&O).

Existing Planning Studies

The MPO reviewed the existing County planning studies described below to identify potential projects eligible for the roadway Needs Plan. These studies were recently completed or are currently underway.

Randall Boulevard/Oil Well Road Study Area

The County completed a corridor study to evaluate potential roadway network improvements near Randall Boulevard and Oil Well Road. The study evaluated several corridor alternatives to enhance traffic operations and safety conditions based on current and future travel demands. On May 14, 2019, the Collier BCC voted to approve the staff recommendation to expand Randall Boulevard (between 8th Street and Everglades Boulevard) to six lanes, Randall Boulevard (between Everglades Boulevard and Desoto Boulevard) to four lanes, and Everglades Boulevard (between Oil Well Road and Randall Boulevard) to four lanes.

CR 951 Congestion Relief Study

This study is intended to identify an alternative travel route to the existing County Road (CR) 951 (Collier Boulevard) corridor because of forecasted high congestion levels by 2045. The preliminary study area extends east of CR 951 from City Gate Boulevard North at its northern limit to Benfield Road on its

eastern limit and to US 41 at its southern limits. Potential alternative solutions include multiple travel routes, improvements to CR 951, a no-build option, and evaluation of other alternative planning strategies to alleviate future congestion on CR 951.

Immokalee Road Corridor Congestion Study

The Immokalee Road (CR 846) Corridor Congestion Study is evaluating the future levels of congestion along the Immokalee Road Corridor between Livingston Road and Logan Boulevard. Potential improvements will be considered at the main intersections along the corridor which include:

- Conventional “At-Grade” Improvements (widening)
- Continuous Flow Intersections
- Jug Handle
- Single Point Urban Interchange
- Restricted Crossing U-Turn
- Diverging Diamond Interchange at I-75

The study is expected to be completed in the spring of 2021.

East of CR 951 Bridge Reevaluation Study

In August 2008, the County conducted the East of CR 951 Infrastructure and Services Horizon Study to evaluate missing bridge connections based on system-wide infrastructure needs that considered transportation circulation, access management, schools, parks, law enforcement, emergency services, fire, libraries, storm water management, and public utilities. The study’s stakeholders identified 12 preferred canal crossing locations and ranked the bridges based on criteria related to mobility, service efficiency, and emergency response. The new bridges would be strategically located throughout the Golden Gate Estates area to reduce trip lengths and travel demand on already congested collector roadways and to provide the greatest opportunity to reduce response time for first

responders. In 2018, County voters approved a 1-cent infrastructure surtax that included specifically earmarked funding for constructing the new bridges.

In 2019, the County completed construction of a new bridge on 8th Street with funding from FDOT. The County has also programmed construction of a new bridge on 16th Street in the Five Year Work Program with funds from the infrastructure surtax proceeds. The surtax funds will be available to construct the remaining 10 bridges within the next 7 years.

The remaining 10 bridges are the subject of the 2020 East of CR 951 Bridge Reevaluation Study, which is being performed to reconfirm the validity of the remaining 10 recommended bridge locations before moving the remaining bridge projects into production. **Table 4-2** presents the bridge locations.

Table 4-2. East of CR 951 Bridge Reevaluation Study Bridges

Map ID ^a	New Bridge Projects
81	47th Ave. NE (between Immokalee Rd. & Everglades Blvd.)
82	Wilson Blvd. N (south of 33rd Ave NE)
83	18th Ave. NE (between Wilson Ave & 8th St. NE)
84	18th Ave. NE (between 8th St. NE & 16th St. NE)
85	North End of 13th St. NW (north of Golden Gate Blvd.)
86	16th St. SE (south of Golden Gate Blvd.)
87	10th Ave. SE (between Everglades Blvd. and Desoto Blvd.)
88	Wilson Blvd. S (south of Golden Gate Blvd.)
89	62nd Ave. NE (between Everglades Blvd. and 40th St. NE)
115	23rd St. SW (south of Golden Gate Blvd.)

^a Refer to Figure 4-9

⁴ <https://www.colliermopo.org/wp-content/uploads/2018/11/3-Freight-Considerations-Tech-Memo.pdf>

Freight

The Collier Freight Network is defined in the Collier MPO 2040 LRTP Freight Congestion Considerations Technical Memorandum⁴ as including limited-access facilities, regional freight mobility corridors, and freight distribution routes.

Collier County's freight transportation network system consists of numerous freight mobility corridors and freight distribution routes that support the state and regional economy. Rail access to the County is limited to a 1-mile section of the Seminole Gulf Railway in the far northwest corner of the County. In addition to providing traditional rail freight transportation, the rail line supplies regional trucking and logistical services, as well as warehousing and distribution from its distribution center located in North Fort Myers.

Review of truck traffic volumes in the FDOT Florida Traffic Online site reveals that volumes are greatest along the portion of I-75 north of Immokalee Road where trucks comprise more than 8 percent of total AADT.⁵ Truck traffic volumes show that this section has daily truck volumes exceeding 8,500 per day. The portion of I-75 between Pine Ridge Road and north of Immokalee Road has truck volumes exceeding 7,500 per day and trucks make up between 8 to 10 percent of the total AADT. Along SR 29 south of I-75, truck volumes make up 26 percent of the total AADT. However, the total traffic volumes along this segment are low compared to other areas in the County.

Limited-Access Facilities

I-75 is the only limited-access facility within the County and is a major element of the Florida SIS. It serves as the primary transportation facility connecting Collier County with its

⁵ FDOT Traffic Online (2019 Volumes) <https://tdaappsprod.dot.state.fl.us/fto/>

immediate neighboring counties, the rest of Florida, and the National Highway System. It also serves as a major commuter corridor.

Regional Freight Mobility Corridors

The regional freight mobility corridors function as connectors between limited-access facilities and regional freight activity centers.

Within the County, the regional freight mobility corridors consist of:

- SR 29 (I-75 to Hendry County Line)
- SR 82 (SR 29 to Hendry County Line)
- SR 84/Davis Boulevard (US 41 to I-75)
- US 41 (SR 84/Davis Boulevard to Lee County Line)

Freight Distribution Routes

Freight distribution routes serve to distribute truck traffic to local delivery areas. These include state roadways and other local roadways designated in local truck route ordinances at the county and municipal levels. The freight distribution routes within the County consist of:

- SR 29 (US 41 to I-75)
- CR 951/Collier Boulevard (Marco Island to US 41)
- CR 951/Collier Boulevard (US 41 to CR 846/Immokalee Road)

- CR 858/Oil Well Road (CR 846/Immokalee Road to SR 29)
- CR 846/Immokalee Road (US 41 to SR 29)
- Golden Gate Boulevard (CR 951/Collier Boulevard to DeSoto Boulevard)
- CR 896/Pine Ridge Road (US 41 to CR 951/Collier Boulevard)
- US 41 (SR 84/Davis Boulevard to Dade County Line)
- Old US 41 (US 41 to Lee County Line)

Freight Activity Centers

The northwestern portion of the County has been identified in the FDOT *Freight Mobility and Trade Plan*⁶ as a low to medium freight activity hotspot within Florida. These hotspots distribute or attract large amounts of freight activities and have a significant impact on Florida's transportation system and economy. There are two types of freight activity centers (FACs) located in the County: primary and secondary (refer to **Figure 4-4**). Primary FACs are large industrial and manufacturing areas that send or receive freight in large quantities or for further distribution to the consumer market. Secondary FACs include significant mining and agricultural operations, which sometimes have intermittent or seasonal demands. There are five primary and four secondary FACs within the County.

⁶ <https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/rail/fmtp/april-2020/fmtp-tm-vp-april-2020.pdf>

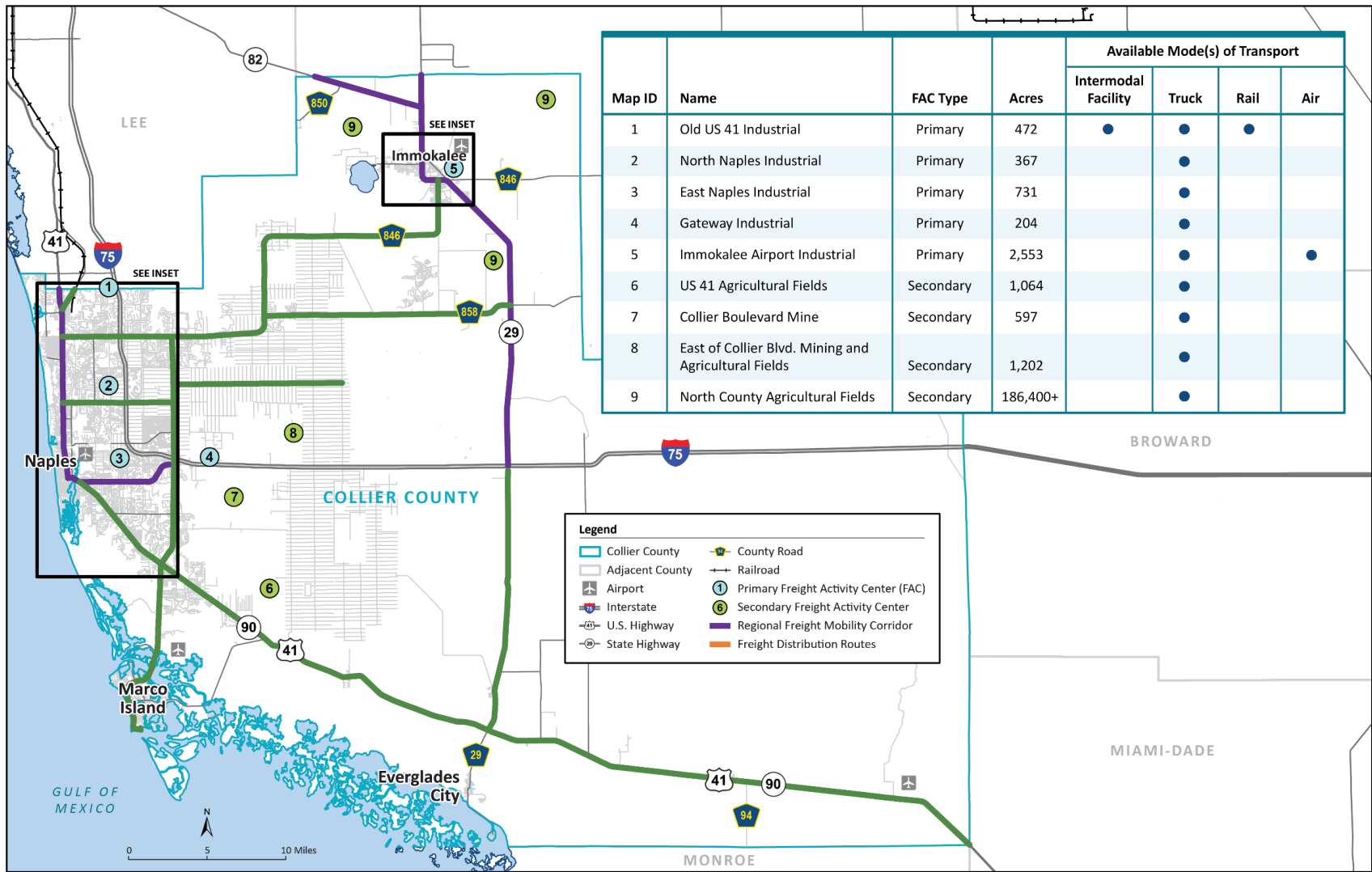


Figure 4-4. Freight Network and Activity Centers

While the Old US 41 Industrial area has limited rail service, it is the only FAC in the County with the potential for intermodal rail activities and should be preserved for future freight-related development as economic conditions warrant. Additionally, a 60-acre zone in and around the Immokalee Airport is designated as a Foreign Trade Zone.⁷ With convenient access to SIS facilities including SR 29, SR 82, and I-75, the Immokalee Airport is well-suited for existing and future intermodal air-cargo/truck activities.

Congestion Management

The Collier MPO is federally mandated to implement a Congestion Management Process.⁸ A CMP is developed to improve traffic flow and safety conditions. As discussed in Chapter 1, the Collier MPO CMC is responsible for creating and amending the CMP and for prioritizing candidate congestion management projects to be funded with federal and state funding. As presented on **Figure 4-5**, the CMP is a detailed eight-step process that an urban area follows to improve the performance of its transportation system by reducing the negative impacts of traffic congestion.

The Collier MPO *Transportation System Performance Report (TSPR) and Action Plan Baseline Condition Report*⁹ provides an evaluation of existing and future congestion issues in the County and associated municipalities. **Figure 4-6** presents congestion hot spot locations in the County that were assessed for congestion management strategies in the TSPR. The hot spot locations were sorted into three tiers to identify which of the hot spot locations had the most causes of congestion. Tier 1 represents road segments influenced by three or more congestion causes, Tier 2 represents road

segments influenced by two congestion causes, and Tier 3 in represents road segments influenced by one congestion cause. Sources of congestion included school congestion, safety, V/C ratio, speed, and public comments.



Figure 4-5. Congestion Management Process Eight-Step Framework

⁷ <https://www.colliercountyfl.gov/your-government/divisions-a-e/airport-authority/immokalee-regional-airport>

⁸ https://ops.fhwa.dot.gov/plan4ops/focus_areas/cmp.htm

⁹ <https://www.colliermmpo.org/wp-content/uploads/Baseline-Conditions-Report-V5-Combined-1.pdf>

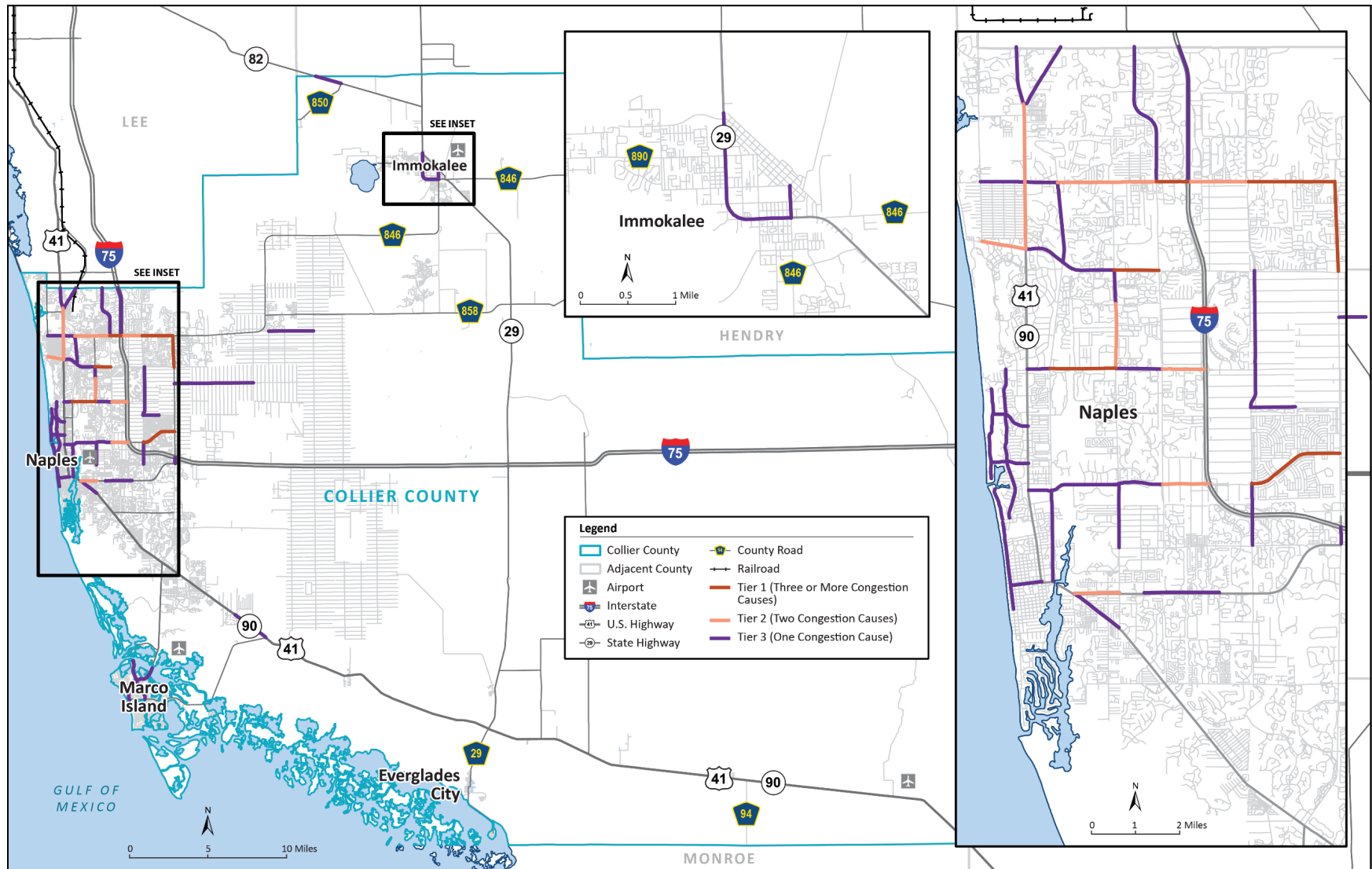


Figure 4-6. TSPR Congestion Hot Spot Locations

Safety Issues

The Collier MPO *TSPR and Action Plan Baseline Condition Report*, along with the Collier MPO Local Road Safety Plan companion study, further identified the top intersection and roadway segment crash locations that were based on an analysis of the top 20 highest frequency and 20 highest rate locations of crashes between 2014 and 2018. **Table 4-3** presents the top roadway segments crash locations. In the 2020 CMP update process, new CMP strategies were identified and added to the existing strategies list based on the analysis conducted in the *TSPR Baseline Condition Report*, which identified causes and locations of congested corridors, and the *TSPR and Action Plan Action Plan*,¹⁰ which analyzed and identified congestion mitigation strategies for the specific corridors. A major addition to these congestion mitigation strategies involved safety strategies that included:

- Signage and pavement markings (e.g., special emphasis crosswalks, yield/stop for pedestrian signs, advanced street signs)

- Visibility and sightline improvements
- New and upgraded street lighting
- Traffic control devices (for example, left-turn signals, variable message signs, pedestrian hybrid beacons)
- New and upgraded existing bicycle and pedestrian crossings

The mapping analysis of crash data from 2014 to 2018 for the LRTP update is presented in **Appendix C**. The map presents total crash locations between 2014 to 2018, as well as crash locations where a fatality by vehicle, including a pedestrian, or bicyclist occurred.

¹⁰ https://www.colliermopo.org/wp-content/uploads/Action-Plan_V3-with-Appendices.pdf

Table 4-3. TSPR Top Road Segment Crash Locations (2014–2018)

On Street	From Street	To Street	Total Crashes	Length (miles)	AADT	Crash Rate ^a	Top 20 Crash Frequency ^b or Rate Location
Golden Gate Pkwy	Santa Barbara Blvd.	Collier Blvd.	559	2.21	27,496	5.048	Both
I 75	Broward County Line	SR 29	470	29.13	22,000	0.402	Frequency
Airport Rd.	Pine Ridge Rd.	Orange Blossom Dr.	455	1.45	34,686	4.943	Both
Tamiami Trail East	Airport Rd.	Rattlesnake Hammock Rd.	453	1.69	47,814	3.074	Frequency
Airport Rd.	Radio Rd.	Golden Gate Pkwy.	405	1.43	44,008	3.534	Both
Immokalee Rd.	I 75	Logan Blvd.	402	1.37	38,245	4.210	Both
Tamiami Trail North	Immokalee Rd.	Vanderbilt Beach Rd.	396	1.51	35,925	4.005	Both
Golden Gate Blvd.	Collier Blvd.	Wilson Blvd.	381	5.03	25,481	1.630	Frequency
I 75	SR 29	SR 951	366	21.23	24,970	0.378	Frequency
Immokalee Rd.	Livingston Rd.	I 75	355	0.71	46,874	5.886	Both
Pine Ridge Rd.	Livingston Rd.	I 75	351	0.95	52,322	3.869	Both
I 75	Pine Ridge Rd.	Immokalee Rd.	331	4.27	35,295	1.203	Frequency
Immokalee Rd	Logan Blvd.	Collier Blvd.	331	1.94	89,362	1.048	Frequency
Golden Gate Pkwy.	Livingston Rd.	I 75	293	2.05	42,756	1.835	Frequency
Davis Blvd.	Lakewood Blvd.	County Barn Rd.	291	1.68	28,243	3.359	Frequency
Airport Rd	Golden Gate Pkwy.	Pine Ridge Rd.	290	2.59	46,556	1.316	Frequency
Tamiami Trail East	Rattlesnake Hammock Rd.	Treetops Dr.	280	2.45	37,428	1.674	Frequency
I 75	Immokalee Rd.	Lee County Line	278	3.06	99,582	0.501	Frequency

Table 4-3. TSPR Top Road Segment Crash Locations (2014–2018)

On Street	From Street	To Street	Total Crashes	Length (miles)	AADT	Crash Rate ^a	Top 20 Crash Frequency ^b or Rate Location
Immokalee Rd.	Collier Blvd.	Wilson Blvd.	271	5.10	29,259	0.995	Frequency
Tamiami Trail North	12th Ave N	Goodlette Rd. S	269	1.66	51,500	1.727	Frequency
Radio Rd.	Livingston Rd.	Santa Barbara Blvd.	250	1.99	18,398	3.742	Rate
Santa Barbara Blvd.	Golden Gate Pkwy.	Green Blvd.	215	1.71	20,314	3.391	Rate
Airport Rd.	Davis Blvd.	North Rd.	198	0.52	43,551	4.819	Rate
Collier Blvd.	Golden Gate Pkwy.	Green Blvd.	177	1.04	27,271	3.420	Rate
Pine Ridge Rd.	Goodlette-Frank Road	Shirley St.	165	0.67	36,418	3.733	Rate
Immokalee Rd.	Stockade Rd.	SR 29	157	1.52	6,949	8.155	Rate
Lake Trafford Rd.	Carson Rd.	SR 29	93	1.00	8,650	5.874	Rate
Immokalee Drive	N 29th St.	Charlotte St.	91	1.97	6,200	4.074	Rate

^a Crash rate expressed as the number of crashes per 100 million vehicle miles of travel (AADT x Length) for the 5-year reporting period.

^b Frequency is defined as the number of crashes occurring within a specific jurisdiction, on a roadway segment, or at an intersection.

Transportation System Management and Operations

The combination of technology and operational strategies is called TSM&O. These multimodal strategies are designed to maximize the efficiency, safety and use of existing and planned transportation infrastructure. TSM&O include Transportation System Management (TSM) approaches and ITS technologies that are noted in the Collier MPO *Congestion Management Process 2017 Update* (Adopted October 13, 2017)¹¹ as effective strategies to mitigate congestion. TSM strategies are a low-cost but effective way to reduce congestion particularly for:

- Intersection and signal improvements
- Special events management strategies
- Incident management

ITS projects are effective in maximizing a transportation system's efficiency. Based on the CMP 2017 Update, candidate ITS projects in Collier County include:

- Those which are consistent with FDOT's current ITS Regional Architecture
- Updates to existing equipment and software deployed in the region
- Improved incident management
- Enhancements to City of Naples, Collier County Traffic Operations/Management Centers (TOCs), including studies and implementing their recommendations
- Improved use of social media and public information technologies

Further, the 2017 CMP Update noted the following ITS performance measures:

- Maintaining concurrency with FDOT Regional ITS Architecture and technological advances in TOC equipment and operations
- Increased number of signalized intersections connected to ITS
- Improved Travel Time Reliability

Within Collier MPO's jurisdiction, both the City of Naples and Collier County manage TOCs in close coordination with each other and with FDOT to remain in full compliance with the FDOT Statewide ITS architecture.

The 2020 CMP update identified several roadway facilities as candidates for ITS and active roadway management strategies.

Figure 4-7 summarizes the projects and associated recommendations along with projects adopted in the current TIP.

While these projects are part of the roadway needs, the LRTP-level modeling software (D1RPM) is not sensitive enough to determine if congestion is relieved through implementation of these strategies. Evaluation and prioritization of these projects is conducted by the MPO CMC using Strategy Evaluation Criteria that are used to screen project submittals for consistency with CMP goals, strategies, and congestion hotspots identified in the TSPR *Baseline Condition Report* (refer to Figure 4-6).

¹¹ <https://www.colliermpo.org/wp-content/uploads/2017-CMP.pdf>

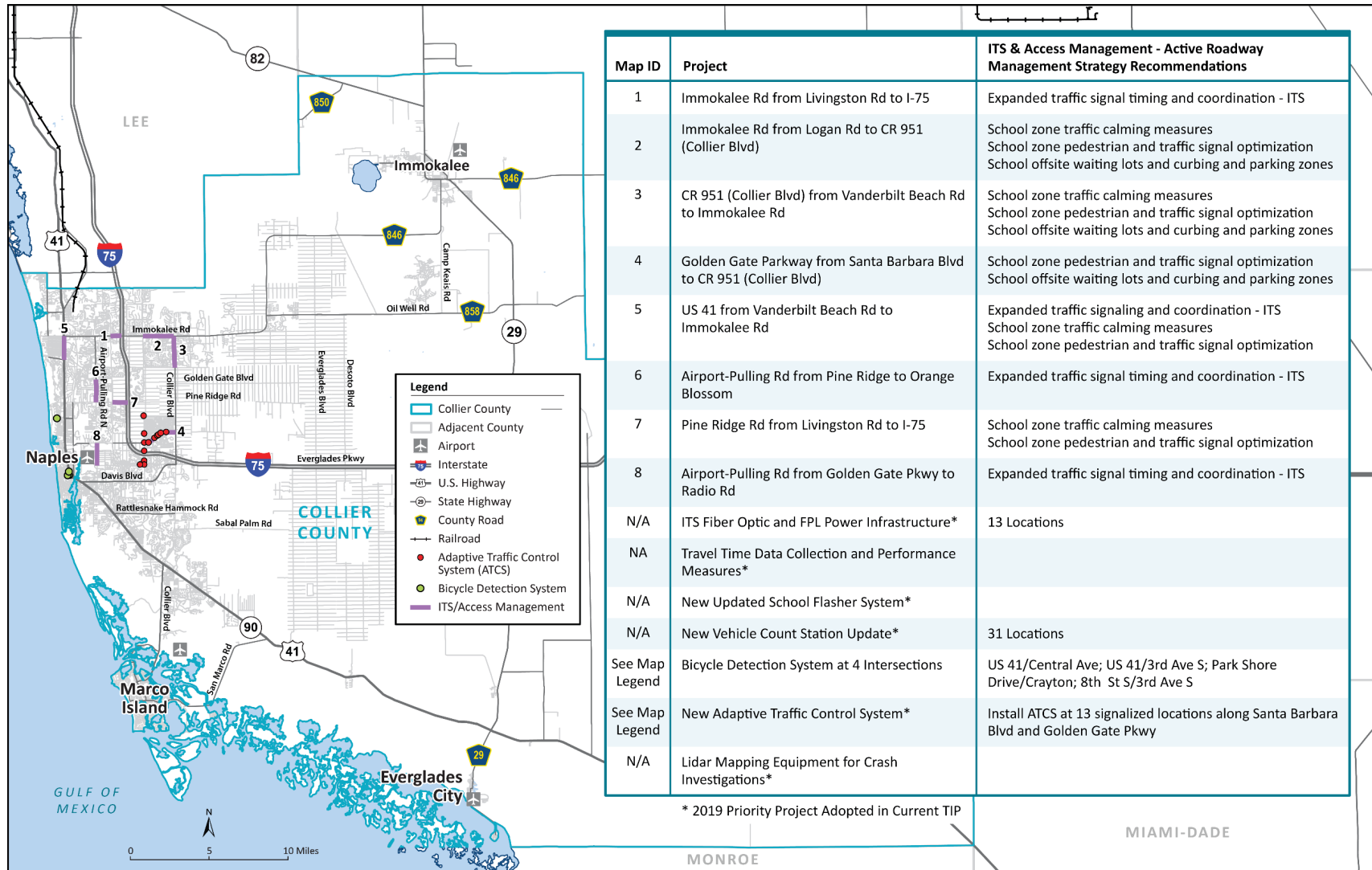


Figure 4-7. 2019 and 2020 CMP ITS/Active Roadway Management Projects

Both the Congestion Management Process and the bicycle/pedestrian planning process strongly consider crash data as an important component of the project identification and selection process. As improvements are made to these facilities, special attention is placed on identifying solutions that enhance safety for motorists, pedestrians, and bicyclists. Traffic crashes are highly correlated with intersection locations, and consideration of operational and ITS improvements to major and minor intersections will address many of the high crash locations. Input from the LRTP into those continuing processes provides valuable guidance in the identification of safety-related improvements.

Ranking the Roadway Needs

Once a comprehensive list of the roadway project needs was developed, they were evaluated by scoring each project using defined goals and objectives, and the evaluation criteria described in Chapter 3. The evaluation provided a score for each project that was used to rank the needs projects from highest to lowest. During the process, adjustments were made to the rankings as more testing was done, or as information about projects schedules and commitments became known. Several projects were removed from the needs list and moved to the E+C category based on agency expectations that projects would be completed before the 2023–2045 planning timeframe. Projects were deleted if modeling indicated that they would not be beneficial.

The following subsections provide further details on the evaluation criteria scoring presented in Chapter 3. Additionally, it describes other considerations when evaluating the projects including natural environment impacts and mitigation strategies, risks to the transportation system due to

climate change, and future technology impacts to the transportation system including CAV.

Environmental Considerations



Transportation projects can significantly impact many aspects of the natural environment including wildlife and their habitats, wetlands, and groundwater resources. Where impacts cannot be completely avoided, impacts minimization, mitigation or conservation efforts are

required. The Collier MPO is committed to principles of environmental stewardship and carefully examines potential impacts and mitigation efforts for each project under consideration. Environmental mitigation for transportation projects in Collier County is completed through a partnership between the Collier MPO, its member jurisdictions, FDOT, state and federal environmental resource and regulatory agencies, and environmental preservation organizations.

Environmental mitigation is the process of addressing damage to the environment caused by transportation projects or programs. The process of mitigation is best accomplished through enhancement, restoration, creation, or preservation projects that help offset unavoidable environmental impacts. These activities are directed through Section 373, F.S., which establishes the requirements for mitigation planning as well as the requirements for permitting, mitigation banking, and mitigation requirements for habitat impacts. Impacts to habitat can be mitigated through a variety of options, which include mitigation banks and mitigation through the Water Management District(s) and the Florida Department of Environmental Protection (FDEP).

Table 4-4 lists environmental mitigation strategies that are considered when addressing environmental impacts from future projects.

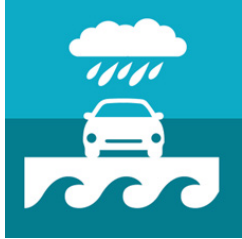
Table 4-4. Mitigation Strategies

Resource/Impacts	Potential Mitigation Strategy
Wetlands and Water Resources	<ul style="list-style-type: none"> • Restore degraded wetlands • Create new wetland habitats • Enhance or preserve existing wetlands • Improve stormwater management • Purchase credits from a mitigation bank
Forested and Natural Areas	<ul style="list-style-type: none"> • Use selective cutting and clearing • Replace or restore forested areas • Preserve existing vegetation
Habitats	<ul style="list-style-type: none"> • Construct underpasses, such as culverts • Implement other design measures to minimize potential fragmenting of animal habitats
Streams	<ul style="list-style-type: none"> • Perform stream restoration • Create vegetative buffer zones • Enforce strict erosion and sedimentation control measures
Threatened or Endangered Species	<ul style="list-style-type: none"> • Preservation • Enhance or restore degraded habitat • Create new habitats • Establish buffer areas around existing habitat

As part of the ranking process, an evaluation of the potential impacts to wildlife, habitat, and wetlands was conducted for each project in the needs network. The U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory database and their panther habitat maps served as a source to estimate the amount of environmental impacts for each project. Impacts to habitat and wetlands were reflected by giving a negative score for each impact, ranging from -1 (least negative impact) to -5 (most negative impact). Projects were scored based on their degree of impact to panther habitat and wetland impacts. The Collier MPO 2045 LRTP Update *Project Cost Development Methodology Technical Memorandum* details how panther habitat and wetland impacts were estimated as well as the costs associated with potential mitigation.

In addition to the process outlined in the Florida Statutes and implemented by the MPO and its partner agencies, the FDOT Efficient Transportation Decision Making (ETDM) process is used to seek input on individual qualifying long-range transportation projects allowing for more specific commentary. This ensures that mitigation opportunities are identified, considered, and available as the LRTP is developed and projects are advanced. The ETDM screening process was applied to all qualifying projects identified in the 2045 LRTP Cost Feasible Plan, which further provided opportunity to engage on any sociocultural impacts as well.

Climate Change Vulnerability and Risks



Southwest Florida contains the largest area of tidally influenced public lands in the Gulf of Mexico and the fastest growing urban landscape in Florida. Both the human and natural components of the ecosystem are under increasing risk because of the threats of a growing

human population, sea level rise (SLR), and tropical cyclones. While all MPOs in Florida will be challenged with extreme change in weather events, each MPO's challenge is unique. Changing conditions can include increased inland flooding, SLR, increased frequency of severe storms with high winds and greater rainfall, increased duration of droughts and rapidly spreading fires, and economic recessions. These conditions will lead to more rapid degradation and decreased functional operability (or lifespan) of transportation facilities. The Collier MPO along with its partnering agencies are considering the unique challenges they face to better plan for ways to protect and preserve their infrastructure. Federal Regulation 23 CFR 450.306(b)(9) requires MPOs, in cooperation with the state and public transportation operators, to "improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation" in the long-range transportation planning process. Planning for resilience involves considering objectives and strategies in other planning areas, as shown on **Figure 4-8**.



Figure 4-8. Resiliency Planning Considerations

Source: FDOT Resilience Quick Guide: Incorporating Resilience in the MPO Long Range Transportation Plan, January 2020

To better understand planning needs and potential actions to mitigate SLR, the County, City of Naples, City of Marco Island, and City of Everglades teamed with Florida Gulf Coast University and the University of Florida to sponsor a grant application from the National Centers for Coastal Ocean Science [a subsidiary of National Oceanic and Atmospheric Administration (NOAA)] for a 3-year study and modeling exercise related to the impacts of SLR and storm surge on Collier County. The Board approved a Resolution of Support for the project on September 13, 2016, and the NOAA grant was awarded. The ACUNE project¹² began in June 2017 to

¹² <https://restoreactscienceprogram.noaa.gov/projects/local-coastal-tool>

develop a decision-support tool to aid resource managers, municipalities, and agencies in Collier County with decisions related to the preservation and restoration of mangrove, marsh, and beach habitats; water management; and coastal planning, zoning, and land acquisition. However, the study was delayed because of the COVID-19 pandemic. A future LRTP update will include the results of the study and adjustments to the needs or cost feasible projects will be made accordingly.

During the Collier MPO 2045 LRTP update, the NOAA Sea Level Rise Viewer (version 3.0.0)¹³ tool was used to evaluate potential climate impacts to the Collier County transportation network. The viewer provides a preliminary look at SLR and coastal flooding impacts. The tool is for screening-level evaluations and uses best-available, nationally consistent data sets and analyses. The SLR viewer can be used at several scales to help estimate impacts and prioritize actions for different scenarios. While the data and maps provided by the tool illustrate the scale of potential flooding, the exact location of SLR and flooding is an estimate. For the Collier MPO 2045 LRTP update, an intermediate high scenario was used to estimate SLR by 2045. **Appendix C** provides a map of potential SLR and coastal flooding by 2045. Projects that promote transportation infrastructure resiliency in the face of climate change and SLR were given a score of 5 if they were within 0.25 miles of potential 2045 flooding area and a score of 3 if they within 0.5 miles of a potential low lying area.

¹³ <https://coast.noaa.gov/slr/#/layer/slr>

The *Collier MPO 2045 LRTP Transportation Network's Vulnerability to Climate Change White Paper* presents further details on climate change vulnerability and risk, estimation of SLR impacts, and possible mitigation strategies.

Future Technology Considerations



The FDOT *Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use (ACES) Vehicles* notes that Florida MPOs are dealing with an unprecedented amount of potential change as they plan for their

transportation needs between now and 2045.¹⁴ Within their next planning horizon, MPOs need to decide how best to address the increasing deployment of ACES vehicles and complementary technologies.

Because emerging technologies have the potential to completely transform conventional transportation practices, it is important to understand the potential benefits and drawbacks of the various technologies. The key benefit to these emerging technologies is the potential to improve safety by reducing injuries and fatalities resulting from human error and distractions. However, ACES technologies also introduce a great deal of unknowns, such as costs, social inequities, and new planning requirements that make navigating policy difficult. **Table 4-5** presents potential positive and negative effects from these emerging technologies as noted in the FDOT ACES Guidance.

¹⁴ https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/policy/metrosupport/resources/fdot_mpoguidebook_20181005.pdf?sfvrsn=7d194ed6_2

Table 4-5. Potential Positive and Negative Effects Resulting from ACES Technologies

Technology	Potential Negative Effect(s)	Potential Positive Effect(s)
Automated Vehicles	<ul style="list-style-type: none"> • Potential increase in VMT from empty vehicles • Changes in land use or urban form 	<ul style="list-style-type: none"> • Increased mobility for children, elderly or the disabled at potentially lower costs • Reduced parking demand • Changes in land use or urban form
Connected Vehicles	<ul style="list-style-type: none"> • Potential hacking of a transportation network 	<ul style="list-style-type: none"> • Potential increase in roadway capacities • New safety features • Improved congestion management
Electric Vehicles	<ul style="list-style-type: none"> • Decrease in transportation funding sources from reduction in motor fuel tax revenues 	<ul style="list-style-type: none"> • Potential reduction in air emissions (depending on energy sources used to generate electricity)
Shared-Use Vehicles	<ul style="list-style-type: none"> • Complete Street design challenges because of competition for limited curb space in urban areas 	<ul style="list-style-type: none"> • Opportunities for mobility hubs and new funding sources

The Florida Connected Vehicle Initiative includes multiple planning, design/implementation, and operational connected vehicle projects throughout the state.¹⁵ While there are currently no projects or initiatives in Collier County, there is

¹⁵ <https://www.fdot.gov/traffic/its/projects-deploy/cv/connected-vehicles>

one project in neighboring Lee County: US 41 Florida's Regional Advanced Mobility Elements (FRAME). The project is in the initial phases. The overall goal is to improve efficient operations of the traffic signals along the corridor, thereby improving mobility as well as provide information for connected vehicles. The project covers approximately 30 miles and 71 traffic signals and includes the following initiatives:

- Traffic signal controllers/cabinets upgrades
- Connected Vehicle Road Side Units deployment
- Pedestrian detection using LIDAR¹⁶ detectors
- Deployment of Automated Traffic Signal Performance Measures

Considering that US 41 continues into Collier County, the Collier MPO is considering expansion of the US 41 FRAME project into the County. The project would benefit drivers commuting between Lee and Collier Counties by improving mobility and safety along the US 41 Corridor.

For the Collier MPO 2045 LRTP update, one CAV planning scenario was modeled by FDOT. FDOT coordinated with the University of South Florida's CUTR to determine the capacity adjustments to the model to simulate a CAV fleet. Based on that coordination, a CAV planning scenario assumed 35 percent of the vehicles on the network were CAV. The output resulted in minor capacity improvements to the overall network.

2045 Roadway Needs Results

Figure 4-9 and **Table 4-6** identify the 2045 roadway needs projects which total to more than \$2.4 billion. The evaluation matrix for the ranking of the needs is presented in **Appendix D**.

¹⁶ Light Detection and Ranging

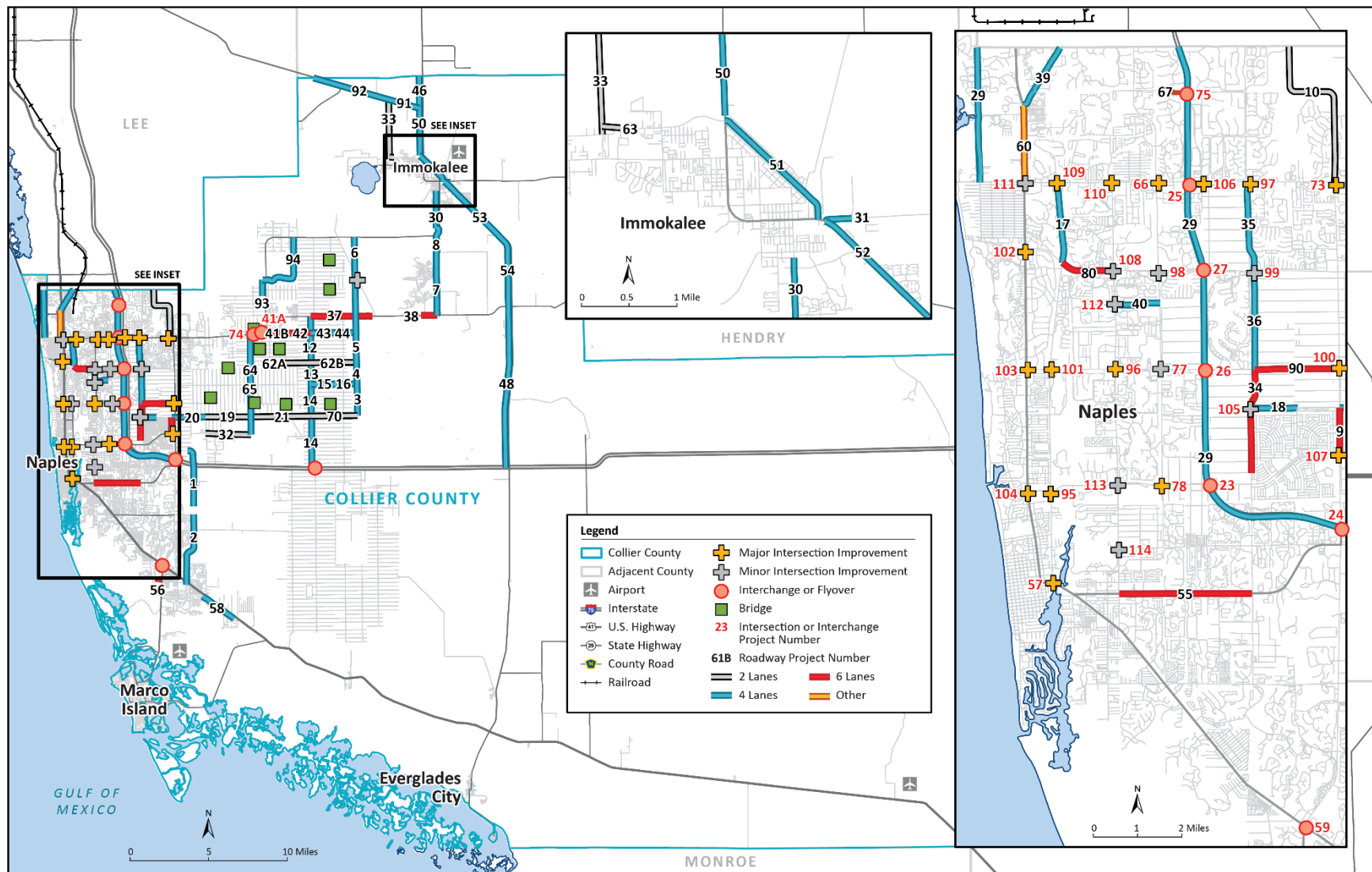


Figure 4-9. 2045 Needs Plan Project Map

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
1	51	Benfield Rd. Extension	The Lords Way	City Gate Blvd. N	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
2	41	Benfield Rd.	US 41 (SR 90) (Tamiami Trail E)	Rattlesnake Hammock Extension	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
3	72	Big Cypress Pkwy.	Green Blvd.	Golden Gate Blvd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
4	70	Big Cypress Pkwy.	Golden Gate Blvd.	Vanderbilt Beach Road Ext.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
5	71	Big Cypress Pkwy.	Vanderbilt Beach Rd. Extension	Oil Well Rd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
6	82	Big Cypress Pkwy.	Oil Well Rd.	Immokalee Rd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
7	62	Camp Keais Rd.	Pope John Paul Blvd.	Oil Well Rd.	Roadway Capacity	Widen from Two to Four Lanes
8	80	Camp Keais Rd.	Immokalee Rd.	Pope John Paul Blvd.	Roadway Capacity	Widen from Two to Four Lanes
9	1	Collier Blvd. (CR 951)	Golden Gate Main Canal	Green Blvd.	Roadway Capacity	Widen from Four to Six Lanes
10	21	CR 951 Extension	Collier Blvd. (CR 951) (northern terminus)	Lee/Collier County Line	Roadway Capacity	New 2-Lane Road
11	34	Everglades Blvd.	Randall Blvd.	South of Oil Well Road	Roadway Capacity	Widen from Two to Four Lanes

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
12	35	Everglades Blvd.	Vanderbilt Beach Rd. Extension	Randall Blvd.	Roadway Capacity	Widen from Two to Four Lanes
13	54	Everglades Blvd.	Golden Gate Blvd.	Vanderbilt Beach Rd. Extension	Roadway Capacity	Widen from Two to Four Lanes
14	63	Everglades Blvd.	I-75 (SR-93)	Golden Gate Blvd.	Roadway Capacity	Widen from Two to Four Lanes
15	37	Golden Gate Blvd.	Everglades Blvd.	Desoto Blvd.	Roadway Capacity	Widen from Two to Four Lanes
16	58	Golden Gate Blvd. Extension	Desoto Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Four-Lane Road
17	31	Goodlette-Frank Rd.	Vanderbilt Beach Rd.	Immokalee Rd.	Roadway Capacity	Widen from Two to Four Lanes
18	66	Green Blvd.	Santa Barbara Blvd./ Logan Blvd.	Sunshine Blvd.	Roadway Capacity	Widen from Two to Four Lanes
19	27	Green Boulevard Extension (16th Ave. SW)	23rd St. SW	Wilson Blvd. Extension	Roadway Capacity	New Two-Lane (Future Study Area)
20	33	Green Boulevard Extension (16th Ave. SW)	Collier Blvd. (CR 951)	23rd St. SW	Roadway Capacity	New Four-Lane (Future Study Area)
21	42	Green Boulevard Extension (16th Ave. SW)	Wilson Blvd. Ext	Everglades Blvd.	Roadway Capacity	New Two-Lane Road
22	60	I-75 (SR-93) Interchange	Everglades Blvd.		Interchange	New Interchange

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
23	8	I-75 (SR-93) Interchange (modified)	Golden Gate Pkwy.		Interchange	Interchange Improvement
24	2	I-75 (SR-93) Interchange (modified)	Collier Blvd. (CR 951)		Interchange	Interchange Improvement
25	22	I-75 (SR-93) Interchange (modified)	Immokalee Rd.		Interchange	Interchange improvement (DDI proposed)
26	18	I-75 (SR-93) Interchange (modified)	Pine Ridge Rd.		Interchange	Interchange improvement (DDI proposed)
27	40	I-75 (SR-93) Interchange (new)	Vanderbilt Beach Rd.		Interchange	New Interchange - Partial (to/from the north)
29	5	I-75 (SR-93) Managed (Toll) Lanes	Collier Blvd. (CR 951)	Collier/Lee County Line	Roadway Capacity	New Ten-Lane Express (Toll) Lanes
30	7	Immokalee Rd. (CR 846)	Camp Keais Rd.	Carver St.	Roadway Capacity	Widen from Two to Four Lanes
31	23	CR 846 E	SR 29	Airpark Blvd.	Roadway Capacity	Widen from Two to Four Lanes
32	81	Keane Ave.	Inez Rd.	Wilson Blvd. Extension	Roadway Capacity	New Two-Lane Road (Future Study Area)
33	50	Little League Rd. Extension	SR 82	Westclox St.	Roadway Capacity	New Two-Lane Road
34	65	Logan Blvd.	Green Blvd.	Pine Ridge Rd.	Roadway Capacity	Widen from Four to Six Lanes
35	52	Logan Blvd.	Vanderbilt Beach Rd.	Immokalee Rd.	Roadway Capacity	Widen from Two to Four Lanes

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
36	67	Logan Blvd.	Pine Ridge Rd.	Vanderbilt Beach Rd.	Roadway Capacity	Widen from Two to Four Lanes
37	38	Oil Well Road/CR 858	Everglades Blvd.	Oil Well Grade Rd.	Roadway Capacity	Widen from Two to Six Lanes
38	46	Oil Well Road/CR 858	Ave Maria Entrance	Camp Keais Rd.	Roadway Capacity	Widen from Two to Six Lanes
39	10	Old US 41	US 41 (Tamiami Trail E)	Lee/Collier County Line	Roadway Capacity	Widen from Two to Four Lanes
40	45	Orange Blossom Drive	Airport Pulling Rd.	Livingston Rd.	Roadway Capacity	Widen from Two to Four Lanes
41A	19	Randall Blvd. Intersection (flyover)	Immokalee Rd.		Interchange	Ultimate Intersection Improvement: Overpass
41B	36	Randall Blvd.	Immokalee Rd.	8th St. NE	Roadway Capacity	Widen from Two to Six Lanes
42	39	Randall Blvd.	8th St. NE	Everglades Blvd.	Roadway Capacity	Widen from Two to Six Lanes
43	59	Randall Blvd.	Everglades Blvd.	Desoto Blvd.	Roadway Capacity	Widen from Two to Four Lanes
44	61	Randall Blvd.	Desoto Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Four-Lane Road
45	44	Santa Barbara Blvd.	Painted Leaf Ln.	Green Blvd.	Roadway Capacity	Widen from Four to Six Lanes
46	56	SR 29	SR 82	Collier/Hendry Line	Roadway Capacity	Widen from Two to Four Lanes

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
48	49	SR 29	I-75 (SR 93)	Oil Well Rd.	Roadway Capacity	Widen from Two to Four Lanes
50	24	SR 29	New Market Road North/Westclox Street	North of SR 82	Roadway Capacity	Widen from Two to Four Lanes
51	13	SR 29/New Market Rd. W (New Road)	CR 846 E	New Market Rd. N	Roadway Capacity	New Four-Lane Road
52	3	SR 29	Agriculture Way	CR 846 E	Roadway Capacity	Widen from Two to Four Lanes
53	15	SR 29	Sunniland Nursery Rd.	Agriculture Way	Roadway Capacity	Widen from Two to Four Lanes
54	16	SR 29	Oil Well Rd.	Sunniland Nursery Rd.	Roadway Capacity	Widen from Two to Four Lanes
55	6	SR 84 (Davis Blvd.)	Airport Pulling Rd.	Santa Barbara Blvd.	Roadway Capacity	Widen from Four to Six Lanes
56	9	Collier Blvd. (SR 951)	South of Manatee Rd.	North of Tower Rd.	Roadway Capacity	Widen from Four to Six Lanes
57	4	US 41 (SR 90) (Tamiami Trail E) intersection	Goodlette Rd.		Major Intersection Improvement	Major Intersection Improvement
58	12	US 41 (SR 90) (Tamiami Trail E)	Greenway Rd.	6 L Farm Rd	Roadway Capacity	Widen from Two to Four Lanes
59	11	US 41 (SR 90) (Tamiami Trail E) intersection	Collier Blvd. (SR 951)		Major Intersection Improvement	Major Intersection Improvement

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
60	14	US 41 (SR 90) (Tamiami Trail E)	Immokalee Rd.	Old US 41	Corridor Study	Further Study Required
62A	73	Vanderbilt Beach Rd. Extension	16th St.	Everglades Blvd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
62B	73	Vanderbilt Beach Rd. Extension	Everglades Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
63	53	Westclox Street Extension	Little League Rd.	West of Carson Rd.	Roadway Capacity	New Two-Lane Road
64	30	Wilson Blvd.	Golden Gate Blvd.	Immokalee Rd.	Roadway Capacity	Widen from Two to Four Lanes
65	32	Wilson Blvd.	Keane Ave.	Golden Gate Blvd.	Roadway Capacity	New Two-Lane Road (Expandable to Four Lanes)
66	17	Immokalee Rd. (Intersection)	Livingston Rd.		Major Intersection Improvement	Major Intersection Improvement
67	57	Veterans Memorial Blvd. Extension	Strand Blvd.	I-75	Roadway Capacity	New Four-Lane Road
68	83	Big Cypress Pkwy. Intersection (new)	Oil Well Grade Rd.		Minor Intersection Improvement	New At-Grade Intersection
70	68	Green Blvd. Extension	Everglades Blvd.	Big Cypress Pkwy.	Roadway Capacity	New Two-Lane Road
73	20	Immokalee Rd. (CR 846) Intersection	Collier Blvd. (CR 951)		Major Intersection Improvement	Major Intersection Improvement

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
74	28	Immokalee Rd. (CR 846) Intersection	Wilson Blvd.		Major Intersection Improvement	Major Intersection Improvement
75	55	I-75 (SR-93) Interchange (new)	Veterans Memorial Blvd.		Interchange	New Partial Interchange
76	43	Vanderbilt Dr.	Immokalee Rd.	Woods Edge Pkwy.	Roadway Capacity	Widen from Two to Four Lanes
77	25	Pine Ridge Rd. Intersection	Livingston Rd.		Minor Intersection Improvement	Minor intersection improvements
78	29	Golden Gate Pkwy. Intersection	Livingston Rd.		Major Intersection Improvement	Major Intersection Improvement
81	74	Bridge @ 47th Ave NE	West of Everglades Blvd.		New Bridge Project	New Bridge over Canal
82	75	Bridge @ Wilson Blvd.	South of 33rd Avenue NE		New Bridge Project	New Bridge over Canal
83	69	Bridge @ 18th Ave. NE	Between Wilson Blvd. N and 8th St. NE		New Bridge Project	New Bridge over Canal
84	76	Bridge @ 18th Ave NE	Between 8th St. NE and 16th St. NE		New Bridge Project	New Bridge over Canal
85	64	Bridge @ 13th St. NW	North Terminus at Vanderbilt Beach Rd. Extension		New Bridge Project	New Bridge over Canal
86	77	Bridge @ 16th St. SE	South Terminus		New Bridge Project	New Bridge over Canal

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
87	77	Bridge @ Location TBD - between 10th Ave. SE and 20th Ave. SE	East of Everglades Blvd.		New Bridge Project	New Bridge over Canal
88	48	Bridge @Wilson Blvd. S	South Terminus		New Bridge Project	New Bridge over Canal
89	79	Bridge @ 62nd Ave NE	West of 40th St NE		New Bridge Project	New Bridge over Canal
115	N/A	Bridge @ 23rd St. SW	South of Golden Gate Blvd.		New Bridge Project	New Bridge over Canal
90	26	Pine Ridge Rd.	Logan Blvd.	Collier Blvd.	Roadway Capacity	Widen from Four to Six Lanes
93	N/A	Immokalee Rd.	Shady Hollow Blvd. E	Rural Village Rd. (new)	Roadway Capacity	Widen from Two Four Lanes
94	N/A	Rural Village Rd. (new)	Immokalee Rd.	Immokalee Rd.	Roadway Capacity	New Four-Lane Road
95	N/A	Golden Gate Pkwy. (Intersection)	Goodlette Rd.		Major Intersection Improvement	Major Intersection Improvement
96	N/A	Pine Ridge Rd. (Intersection)	Airport Pulling Rd.		Minor Intersection Improvement	Minor intersection improvements
97	N/A	Immokalee Rd. (Intersection)	Logan Blvd.		Major Intersection Improvement	Major Intersection Improvement

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
98	N/A	Vanderbilt Beach Rd. (Intersection)	Livingston Rd.		Minor Intersection Improvement	Minor intersection improvements
99	N/A	Vanderbilt Beach Rd. (Intersection)	Logan Blvd.		Minor Intersection Improvement	Minor intersection improvements
100	N/A	Collier Blvd. (Intersection)	Pine Ridge Rd.		Major Intersection Improvement	Major Intersection Improvement
101	N/A	Pine Ridge Rd. (Intersection)	Goodlette Rd.		Minor Intersection Improvement	Minor intersection improvements
102	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Vanderbilt Beach Rd.		Major Intersection Improvement	Major Intersection Improvement
103	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Pine Ridge Rd.		Major Intersection Improvement	Major Intersection Improvement
104	N/A	US 41 (SR 90) (Tamiami Trail E) intersection	Golden Gate Pkwy.		Major Intersection Improvement	Major Intersection Improvement
105	N/A	Santa Barbara Blvd.	Green Blvd.		Minor Intersection Improvement	Minor intersection improvements
106	N/A	Immokalee Rd.	Northbrook Dr.		Major Intersection Improvement	Major Intersection Improvement

Table 4-6. 2045 Needs Plan List of Projects

Map ID	Needs Ranking	Project	From	To	Type of Project	Description
107	N/A	Golden Gate Pkwy.	Collier Blvd.		Major Intersection Improvement	Major Intersection Improvement
108	N/A	Vanderbilt Beach Rd.	Airport Pulling Rd.		Minor Intersection Improvement	Intersection Innovation/Improvements
109	N/A	Immokalee Rd.	Goodlette-Frank Rd.		Major Intersection Improvement	Intersection Innovation/Improvements
110	N/A	Immokalee Rd.	Airport Pulling Rd.		Major Intersection Improvement	Intersection Innovation/Improvements
111	N/A	US 41	Immokalee Rd.		Minor Intersection Improvement	Intersection Innovation/Improvements
112	N/A	Airport Pulling Rd.	Orange Blossom Dr.		Minor Intersection Improvement	Intersection Innovation/Improvements
113	N/A	Airport Pulling Rd.	Golden Gate Pkwy.		Minor Intersection Improvement	Intersection Innovation/Improvements
114	N/A	Airport Pulling Rd.	Radio Rd.		Minor Intersection Improvement	Intersection Innovation/Improvements

4-3 Bicycle and Pedestrian Needs

Pathways that consist of pedestrian and bicycle facilities are an important part of the County's transportation network. They facilitate access to public transportation and provide alternative mobility choices. In 2019, the Collier MPO and BPAC developed a *Bicycle/Pedestrian Master Plan* (BPMP) that addresses pedestrian and bicycle needs.¹⁷ The BPMP is incorporated in the LRTP by reference.

The BPMP establishes policies for including bicycle and pedestrian facilities along all collector and arterial roads, formalizes the applicability of the Design Guidelines, adopts FDOT's Complete Streets policy, identifies high priority Complete Streets Corridors, and establishes MPO priorities for funding improvements. The policies also commit MPO staff to reporting to the MPO Board on performance measures and targets on an annual basis.

Vision, Goals, and Objectives

The BPMP's Vision, Goals, Objectives, and Strategies were developed with input from the MPO's advisory committees, the BPMP stakeholders group, Collier MPO staff, and the consultant, and were vetted by the MPO Board. The Vision combines an emphasis on safety with creating a network for the community to use and enjoy:

"To provide a safe and comprehensive bicycle and pedestrian network that promotes and encourages community use and enjoyment."

Goals and Strategies were developed by reviewing local, state, and national best practices and goals in similar plans including the Collier MPO 2012 *Comprehensive Pathways Plan*. The

2019 BPMP is similar to the 2012 *Comprehensive Pathways Plan* but places greater emphasis on safety, equity, and community health. The goals became the basis for the development of strategies, policies, and project prioritization criteria and are as follows:

- **Safety.** Increase safety for people who walk and bicycle in the County.
- **Connectivity.** Create a network of efficient, convenient bicycle and pedestrian facilities in the County.
- **Equity/Livability.** Increase transportation choice and community livability through development of an integrated multimodal system.
- **Health.** Increase total miles of bicycle and pedestrian facilities and encourage local governments to incorporate Complete Streets principles in road planning, design, and operations.
- **Economy.** Promote tourism and economic opportunities by developing a safe, connected network of biking and walking facilities.
- **Environment.** Protect the environment by promoting walking and bicycling for transportation to reduce congestion, reduce the need for costly expansion of road and highway systems, and reduce our nation's dependence on foreign energy sources.

To address the issue of equity in terms of providing equal access to bicycle and pedestrian facilities countywide, the MPO's previous identification of Environmental Justice (EJ) communities was updated. The EJ criteria used for the BPMP were minority status, poverty, no access to a vehicle, and

¹⁷ <https://www.colliermopo.org/bp-master-plan/>

limited ability to speak English. EJ community areas were defined as areas where the criteria were 10 percent greater than the County average. The areas were ranked “Low”, “Medium”, “High”, or “Very High” based on how many EJ factors overlapped within them. [Appendix C](#) presents the EJ Community Area map.

Identification of Network Needs

The BPMP developed bicycle and pedestrian priorities by first identifying gaps and needs on collector and arterial roads in the region using the following six-step identification process:

1. **Plans Review** – Review of local plans and documents that address bicycle and pedestrian issues and opportunities. Locally adopted plans and formal studies are incorporated by reference into the BPMP so that the projects identified within them are eligible for MPO funding. Examples include the *City of Naples Downtown Circulation and Connectivity Plan*, the *Marco Island Bike Path Master Plan*, and two plans currently in process: the Everglades City Bicycle and Pedestrian Master Plan and the City of Naples Pedestrian and Bicycle Master Plan update.
2. **Inventories** – The Collier MPO entered into an agreement with the Naples Pathway Coalition (NPC) during the development of the BPMP to develop a joint bicycle facilities map in partnership with NPC and the City of Naples Community Services Department. Additionally, the Collier MPO’s 2017 bicycle and pedestrian facilities inventory maps were reviewed and commented on by local agencies, stakeholders, and the community through an extensive public outreach effort, resulting in multiple revisions of the map. The joint map was completed and published in November 2018. Going forward, NPC agreed to serve as the recipient of comments regarding the joint map’s accuracy, and the Collier MPO agreed to maintain and update the associated geographic information system (GIS) files on an as-needed basis.
3. **Public Input** - The Collier MPO posted an interactive map on its website that generated nearly 400 comments. Comments were used to develop an overlay map for project review.
4. **Crash and Environmental Justice Community Data** – An analysis of crash data indicated concentrated bicycle and pedestrian crashes near land uses related to tourism and services or in relation to EJ community areas. The combination of these two factors—bicycle and pedestrian crash clusters and EJ communities—proved to be a useful marker for the needs of low-income, minority, and immigrant populations.
5. **Network Configuration** - Collier MPO staff worked closely with the MPO advisory committees and agency staff and considered public comment in the process of articulating design and planning policies related to roadways.
6. **Gap and Needs Analysis** - Using GIS data, the needs analysis included overlaying the collected data, public input, and draft policies to identify missing links and segment deficiencies in the bicycle/pedestrian network. Throughout the process, monthly updates on the needs were provided to the advisory committees and stakeholders beginning in the fall 2018, which led to further refinement of the prioritization criteria, network gaps, facility needs, and priority projects.

The needs analysis identified 74 miles of roadway lacking any type of bicycle or pedestrian facility and 150 miles of roadway lacking sufficient bicycle facilities. **Table 4-7** lists the bicycle and pedestrian network gaps and facility needs. **Appendix C** includes a map from the BPMP showing bicycle and pedestrian facility gaps overlapped with public comments.

Prioritized Bicycle and Pedestrian Facilities

Once the needs were identified, the BPMP's goals and objectives served as the prioritization criteria to develop a list of prioritized bicycle and pedestrian facilities. The Needs Analysis in the Plan is comprehensive and inclusive of many attributes. For example, **Table 4-8** identifies road segments that are prioritized for Complete Streets – Safety Corridor Studies resulting from an analysis of high crash locations on arterial and collector roads overlapping with EJ communities and transit corridors. **Table 4-9** lists the bicycle and pedestrian priorities based on technical need (gap analysis) and public comments. The segments identified totaled 66 miles.

Table 4-7. Network Gaps/Facility Needs*Source: Collier MPO BPMP*

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

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

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

Table 4-8. Complete Streets – Safety Corridor Studies*Source: Collier MPO BPMP*

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

Table 4-9. Prioritized Bicycle and Pedestrian Facilities*Source: Collier MPO BPMP*

Road	From	To	Distance	Agency	Facility Type
111th Ave. N	Vanderbilt Dr.	Tamiami Trl. N	1.0	Collier County	Bike Lane/Path
Airport Rd. N	Pine Ridge Rd.	Immokalee Rd.	4.2	Collier County	Bike Lane/Path
Airport Rd. N	S Horseshoe Dr.	Pinewoods Cir.	2.5	Collier County	Bike Lane/Path
Airport Rd. S	Seagrape Ave.	Davis Blvd.	0.5	Collier County	Bike Lane/Path
Airport Rd. S	Davis Blvd.	Tamiami Trl. E	0.8	Collier County	Safety
Bluebill Ave.	Bluebill Ave.	Vanderbilt Dr.	0.4	Collier County	Bike Lane/Path
Bonita Beach Rd.	Vanderbilt Dr.		1.7	Collier County	Bike Lane/Path
Castaways St.	Saturn Ct.	Amazon Ct.	0.2	Marco Island	Marco Master Plan
Collier Blvd.	17th Ave. SW	City Gate Blvd. N	2.0	Collier County	Bike Lane/Path
Collier Blvd.	N End Jolley Bridge	Fiddlers Creek Pkwy.	3.6	Collier County	Bike Lane/Path
Copeland Ave. S	Broadway	Oyster Bar Ln.	0.7	Everglades City	Pathway
Davis Blvd.	Tamiami Trl.	Airport Rd. S	1.0	Collier County	Bike Lane/Path
Everglades Blvd.	Oil Well Rd.	58TH AVE NE	3.1	Collier County	Sidewalk
Golden Gate Pkwy.	9th St. N	Estuary Blvd.	1.6	Naples	Bike Lane/Path
Greenbrier St.	Manor Ter.	Saturn Ct.	0.2	Marco Island	Marco Master Plan
Immokalee Rd.	Tamiami Trl.	Northbrooke Dr.	4.0	Collier County	Bike Lane/Path
Logan Blvd. N	Logan Blvd.	Vanderbilt Beach Rd.	1.1	Collier County	Bike Lane/Path
Logan Blvd. S	Logan Blvd.	Green Blvd.	2.0	Collier County	Bike Lane/Path
Oil Well Rd.	Everglades Blvd. N	Oil Well Grade Rd.	3.9	Collier County	Bike Lane/Path
Oil Well Rd.	Ave Maria Blvd.	SR 29	5.7	Collier County	Bike Lane/Path
Old US 41 N	Tamiami Trl.	Performance Way	1.5	Collier County	Pathway
Peru St.		Seagrape Dr.	0.1	Marco Island	Marco Master Plan
Pine Ridge Rd.	Tamiami Trl.	Logan Blvd. S	5.1	Collier County	Bike Lane/Path
Randall Blvd.	Randall Blvd.	Approach Blvd.	1.5	Collier County	Bike Lane/Path
Rattlesnake H Rd.	Valley Stream Dr.	Collier Blvd.	3.5	Collier County	Bike Lane/Path
San Marco Rd.	Goodland Dr.	Tamiami Trl. E	6.5	Collier County	Pathway
Santa Barbara Blvd.	Green Blvd.	17th Ave. SW	0.2	Collier County	Bike Lane/Path
Saturn Ct.	Castaways St.	Greenbrier St.	0.1	Marco Island	Marco Master Plan
Seagrape Dr.	Peru St.	Swallow Ave.	0.7	Marco Island	Marco Master Plan
Tamiami Trl. E	Greenway Rd.	Six LS Farm Rd.	2.5	Collier County	Pathway
Vanderbilt Beach Rd.	Gulfshore Dr.	Vanderbilt Dr.	0.4	Collier County	Bike Lane/Path
Wiggins Pass Rd.	Vanderbilt Dr.	Tamiami Trl. N	1.0	Collier County	Bike Lane/Path
Wilson Blvd. N	Golden Gate Blvd	24th Ave. NE	3.0	Collier County	Pathway
Total Miles			66.3		

Shared-Use Nonmotorized (SUN) Trail Alignments and Spine Pathway Corridors

Managed by the FDEP 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 Priority Trail. **Appendix C** includes the SUN Trail Alignments and Spine Pathway Corridors map, which shows the two SUN Trail alignments and other interconnected spine pathway corridors within Collier County that form an integrated, high-priority pathway network.

The BPMP identified the following as priority projects to complete the SUN Trail¹⁸ and Spine Trail network. Further details on each project is provided in the BPMP.

- SUN Trail Alignments
- FPL Easement/Livingston/Rich King Greenway Alignment
- Gordon River Greenway Connections
- Golden Gate Canal Greenway (Proposed)
- Golden Gate Parkway between Santa Barbara and Collier Boulevards
- SR 29 and SR 82

Existing Plus Proposed Facilities

Additional needs analysis included examining the 2040 LRTP roadway projects, as roadway enhancement projects provide an excellent opportunity to cost-effectively expand the bicycle and pedestrian network. **Appendix C** includes the Existing Plus Proposed Facilities map, which provides a visual summary of

the project priorities for major roadways and the combined SUN Trail/Spine Trail network.

Local and Residential Roads

Since the 2040 LRTP update, the Collier MPO completed the Golden Gate City Walkable Community Study to develop a prioritized list of sidewalk and pedestrian amenity projects that would promote and enhance walkability, bicycle use, transit use, and social equity throughout the community. Projects were scored based on proximity to crashes, schools, commercial destinations, parks, and transit, and public input. Projects were then ranked in tiers based on their current condition and greatest value to the public:

- Tier 1 Projects were given the highest priority based on their benefit to the community
- Tier 2 Projects are instrumental in completing a continuous sidewalk network throughout the community.
- Tier 3 Projects will enhance overall walkability within the community

The results of the study demonstrated a significant need for sidewalk infrastructure in Golden Gate City. The Collier MPO has completed a total of four Walkable Community Studies, including Immokalee, Bayshore and Naples Manor in addition to Golden Gate City. A fifth study completed for Naples Park was never officially approved by the MPO because of unresolved differences of opinion within the community.

Local Agency Priorities on Local Roads

Adopted local agency plans are incorporated into the BPMP by reference. Key priorities are summarized as follows.

¹⁸ <https://www.fdot.gov/planning/systems/SUNTrail.shtm>

Naples

The *Naples Downtown Circulation and Connectivity Plan* identifies bicycle and pedestrian improvements to the Gordon River Bridge (5th Avenue S) as a priority for the region as it is the hub of the SUN Trail and Spine Corridor Network. The project design calls for narrowing the existing travel lanes, eliminating the shoulder, and moving the existing barrier to provide a 14-foot-wide shared-use path on each side of the bridge.

Everglades City

Everglades City identified four sidewalks projects (along Copeland Avenue, Datura Street, Broadway, and Collier Avenue) as part of their priority needs in response to the MPO's call for projects in 2017. A second call for projects issued in 2018 resulted in the identification of segments of Copeland, Hibiscus, and Broadway as priority needs for sidewalks or bike lanes.

Immokalee Urban Area

The Immokalee Walkable Community Study served as the basis for a \$13 million TIGER Grant application, which the County was awarded in 2018. The BPMP identifies SR 29 and SR 82 as critical components of the Spine Trail Network for Collier County. Additionally, the Immokalee CRA requested to extend bicycle and pedestrian facilities along Lake Trafford Road to the lake as part of the Spine Trail priority.

Marco Island

Top priorities from Marco Island's 2019 *Bike Path Master Plan* include:

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

Future updates to the Marco Island *Bike Path Master Plan* are automatically incorporated by reference into the BPMP.

4-4 Transit Needs

This section summarizes the needs and improvements identified in the Collier County *Ten-Year Transit Development Plan* (TDP),¹⁹ which is incorporated by reference into this LRTP and was developed by CAT in coordination with the Collier MPO. Transit needs information identified in this document was used to assess transit needs for the County and its municipalities in the next 20 years.

Goals and Objectives

CAT has established seven goals to help fulfill their vision and mission for the County and its municipalities. These goals guide the transit needs and improvement development process.

- Goal 1: Operate reliable, convenient, and cost-effective mobility services that safely and efficiently meet the mobility needs of Collier County's workers, residents and visitors.
- Goal 2: Increase the resiliency of Collier County, protecting our man-made and natural resources, by providing attractive and convenient mobility alternatives that will reduce adverse carbon and environmental impacts within our communities.

¹⁹ <https://www.colliermpo.org/wp-content/uploads/2020/08/Draft-CAT-TDP-2021-2030-Rev-08.25.2020.pdf>

- Goal 3: Build meaningful partnerships that increase awareness and education of and about mobility options and increase the viability of mobility services to promote livability and enhance economic and social well-being.
- Goal 4: Coordinate the development and provision of mobility services with local, regional, state planning efforts and through public and private partnerships.
- Goal 5: Use technologies and innovations in service delivery to improve productivity, efficiency, reliability, and cost-effectiveness of mobility services and operations.
- Goal 6: Monitor and improve mobility service quality and service standards.
- Goal 7: Maximize the use of all funding sources available, including through partnerships with businesses, employers, and other institutions to increase and improve access to mobility services and mobility for workers, residents, visitors.

Development of Transit Needs

The development of transit needs was guided by a review of existing plans and studies, baseline conditions, existing transit performance, public input, regional coordination, and the development of a transit demand analysis, which includes market assessments and transit modeling to identify gaps in the system.

Existing Plans and Studies

The initial process for developing the list of transit needs included a review of local, regional, state, and federal planning documents, as noted in the TDP.

Public Outreach

Public outreach occurred throughout the development of the TDP to ensure that public input guided the development of needs and potential improvements. Collier community members, elected officials, and other stakeholders were all invited to engage with the TDP planning team through surveys made available on CAT bus routes, online public surveys, stakeholder interviews, discussion workshops, public transit advisory committee, project group meetings, and public workshops.

Existing Transit Evaluation

The existing transit evaluation process consisted of three elements – identifying existing transit service in the County and its municipalities, comparing CAT transit performance against similarly sized peer transit agencies, and developing a trend analysis that summarizes the results from the peer review analysis.

Existing Transit Service

CAT operates a fleet of 29 buses that provide service on 19 fixed-route bus lines to the public 7 days per week from 3:55 a.m. to 8:48 p.m. CAT also provides complementary paratransit service through CAT Connect for people with a qualifying disability that are not otherwise able to access the fixed-route buses. CAT operates out of the County-owned Radio Road Transit facility. This facility offers connections for pedestrians, bicyclists, drop-off passengers, and nearby park-and-ride passengers at its Intermodal Transfer Station .

Peer and Trend Analysis

The peer comparison and trend analysis examine CAT transit system performance and compared services to peer agencies. The peer comparison and trend analysis provided a starting point for understanding CAT's transit system operating

environment over time when compared to other similarly sized transit systems. Key trends between 2013 and 2018 included:

- CAT increased vehicle miles, revenue miles, vehicle hours and route miles, and vehicle miles per capita. CAT was above the peer average for passenger miles, vehicle miles, revenue miles, and route miles.
- Passenger trips and passenger miles declined, as did passenger trips per capita, passenger trips per revenue mile, and passenger trips per revenue hour. CAT was 19 percent below the peer average for passenger trips and 20 percent above the peer average for passenger miles.
- Total operating expenses increased 6 percent. CAT operating expense per passenger mile and operating expense per revenue mile was below the peer average.
- The share of operating expenses funded by passenger fares decreased 34 percent, which was near the peer average.

Transit Demand Analysis

The transit demand analysis for MPO boundary area included an evaluation from two different customer types, described below. The discretionary market refers to people who may choose to ride transit but who have other mobility options. Previous studies have shown most CAT riders are not discretionary riders. The analysis was based primarily on population and employment density to identify these markets. While much of the area falls under the “Low” category, the density threshold assessment indicated that there are employment-based areas that have “High” or “Very High” transit-investment potential east of Naples Airport, north of

Pine Ridge Road, and along the Tamiami Trail. Household unit-based areas with “High” transit-investment potential are located along Naples Beach, south of Pine Ridge Road, and in Immokalee east of Sunshine Boulevard.

Traditional Market Assessment

As part of the transit market assessment, socioeconomic and demographic characteristics were studied among people that are more likely to use transit because they have limited mobility options and depend on public transit for most transportation. Demographic factors including population density, older adults, youth, and households below the federal poverty level helped identify where people are likely to rely on transit the most. CAT serves areas with traditional transit markets, such as north of downtown Naples and near Lee County. Areas in Immokalee also have strong traditional transit markets.

Ridership Projections

Transit demand and mobility needs were evaluated for the CAT fixed-route system using the Federal Transit Administration’s ridership forecasting tool T-BEST. The model was based on the assumption that population and employment, travel demand, technology, and transit routes are the same as today. **Table 4-10** provides the ridership forecast by route in the years 2021 and 2030. The model projected a 17-percent increase in transit ridership for all routes by 2030, particularly for Routes 21, 27, and 121. The transit plan suggests the highest ridership increases are possible by expanding service in areas with high population density and growth.

Table 4-10. Ridership and Growth Rates with No Improvements, 2021–2030^a

Route	2021 Average Annual Ridership	2030 Average Annual Ridership	2021–2030 Absolute Change	2021–2030 Average Growth Rate
11	108,083	123,855	15,772	14.6%
12	82,923	96,211	13,288	16.0%
13	73,580	91,681	18,101	24.6%
14	55,388	65,657	10,269	18.5%
15	103,042	107,980	4,938	4.8%
16	50,253	52,259	2,006	4.0%
17	39,922	44,056	4,134	10.4%
18	27,661	31,555	3,894	14.1%
19	66,732	77,813	11,081	16.6%
20	9,091	9,180	89	1.0%
21	12,812	21,449	8,637	67.4%
22	54,895	64,340	9,445	17.2%
23	27,698	33,854	6,156	22.2%
24	51,055	58,822	7,767	15.2%
25	17,308	20,897	3,589	20.7%
26	6,044	6,547	503	8.3%
27	33,319	47,517	14,198	42.6%
28	26,719	34,023	7,304	27.3%
121	25,280	35,710	10,430	41.3%
Totals	871,805	1,023,406	151,601	17.4%

^a Based on T-BEST modelSource: Collier County *Ten-Year Transit Development Plan*

Gap Overview

The gap analysis compares existing service coverage to transit market analysis results. The goal was to identify gaps in public transit where travel demand is high but where transit service is less than predicted demand, and where transit stops may have barriers.

The gap analysis from the TDP revealed that the areas that have potential for being underserved are located west and east of US 41 but south of Bonita Beach Road. Other major areas that are underserved include North Naples, Immokalee, Collier Boulevard between Rattlesnake Hammock Road and Radio Road, and areas east of Goodlette-Frank Road.

Transit Needs Results

The evaluation baseline conditions, existing transit performance, public input, regional coordination, and transit demand and gap analysis helped identify a set of transit needs for the County and its municipalities.

Once the transit needs were identified, a quantitative-qualitative methodology was developed to evaluate and prioritize the transit needs. Prioritization was based on weighing the benefits of each service improvement against the others. Three evaluation categories were identified for determining the criteria for evaluation: public outreach, transit markets, and productivity and efficiency. **Table 4-11** presents the criteria, measure of effectiveness, and weighting used to rank the needs.

Table 4-11. Transit Needs Evaluation Measures

Category	Criteria	Measure of Effectiveness	Relative Weighting	Overall Category Weight
Public Outreach	Public Input	Level of interest in specific alternatives (Very High, High, Moderate, Low)	40%	40%
Transit Markets	Traditional Market	Percent serving poverty	15%	30%
	Proximity to Employment Market	Percent of countywide employment market served	15%	
Productivity and Efficiency	Productivity	Trips per hour (T-BEST-generated trips and revenue hours of service)	15%	30%
	Cost Efficiency	Cost per trip (including new trips)	15%	
Total			100%	100%

Table 4-12 lists the transit needs based on the TDP and socioeconomic data expected through 2045. **Table 4-12** also presents the ranking (where available) for the transit needs identified. **Figure 4-10** illustrates the transit network service needs, which includes extending service, realigning routes, and providing new service. The needs listed are organized by type of improvement: route network, route frequency, span of service, and new service. There is a need to extend current bus routes to reach more riders, realign routes to create more efficient service, increase how often buses provide service, and provide new service to unserved areas. More details on route descriptions and benefits are provided in the TDP.

Table 4-12. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Proposed Realignment Changes		
Route 22	1	Realign to streamline circulation in Immokalee, reduce duplication with Route 23, reduce the need for transfers between Routes 22 and 23, and extend service east along Main Street and to the various packing houses that employ approximately 20,000 employees.
Route 23	1	Realign to provide direct connections to the westernmost residential cluster on Lake Trafford Road, the County Health Department, several packing houses along New Harvest Road, and the easternmost residential cluster on Farm Workers Way.
Route 11	2	Minor extension of the north to connect to the Walmart on Tamiami Trail and Immokalee Rd. Or consider connecting to the LinC at the Walmart.
Routes 17/ and 18	4	<ul style="list-style-type: none"> • Realign to combine the two routes along the portion from Government Center along Tamiami Trail to Rattlesnake Hammock Road to Collier Blvd. to the Super Walmart at Tamiami Trail. • Remove service along Tamiami Trail
Routes 19 and /28	6	Realign by eliminating unproductive segments of Route 19 and combining the service hours into Route 28 with increased frequency.
Route 12	7	Minor extension west into Walmart and other shopping plazas at the intersection of Tamiami Trail and Immokalee Rd.
Route 13 and 14	4 and 3	Realign from a one-way pair to two bidirectional routes, with one operating along 9th Street/Tamiami Trail and the other along Goodlette-Frank Rd.
Route 20 and 26	9	Combine Routes 20 and 26 to improve frequency and streamline service.
Route 21 (Marco Island Express)	11	Provide express service to the Walmart Supercenter on Collier Blvd. and Tamiami Trail and potentially to the Government Center.
Route 25 (NS and EW)	8 and 13	<ul style="list-style-type: none"> • Extend the North-South alignment north to Immokalee Rd. • East-West alignment would remain the same.
Route 27 (NS and EW)	15 and 12	<ul style="list-style-type: none"> • Extend the North-South alignment south along Collier Boulevard to Tamiami Trail. • Extend the East-West alignment east to provide service along Immokalee Rd. to the Publix shopping center at Immokalee Rd. and Oil Well Rd.

Table 4-12. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Proposed Frequency Changes		
Route 19/28		Reduce headway time from 165 minutes to 60 minutes.
Route 23		Reduce headway from 60 minutes to 40 minutes
Route 121	1	Add two morning and two evening trips during peak periods, while coordinating with employee shift times at major employment locations.
Route 11	3	Reduce headway time from 30-minutes to 20-minutes.
Route 12	3	Reduce headway time from 25- to 90-minutes to 30-minute peak headway and a 60-minute off-peak headway.
Route 13	6	Reduce headway time from 40 minutes to 30 minutes.
Route 14	6	Reduce headway time from 60 minutes 30 minutes.
Route 24	6	Reduce headway time from 85 minutes to 60 minutes.
Route 15 and 16	2 and 5	Reduce headway time from 90 minutes to 45 minutes.
Proposed Span Improvements		
Route 11, 13, 14, 17/18, 19/28, 24	1, 1, 1, 6, 4, 4	Extend service to 10:00 p.m.
Proposed New Service Routes		
Island Trolley		Would travel along Collier Blvd. on Marco Island as a fixed-route and connect to the realigned Route 21 Marco Island Express route. Would be a hop-on/hop-off type, fare-free service using two vehicles with 30-minute headways.
New UF/IFAS and Lehigh Acres Route		Would connect Immokalee to the University of Florida/IFAS satellite campus and Lehigh Acres. Further study is recommended due to the roadway constraints for transit vehicles entering/exiting UF/IFAS campus.
I-75 Premium Express	9	Would operate like an express commuter service beginning at the Government Center and end at the Florida Gulf Coast Town Center. The route would require one vehicle to provide 90-minute headway service from 6 a.m. to 8 p.m.

Table 4-12. 2045 Transit Needs Summary

Route Location	Rank	Improvement Description
Bayshore Shuttle		Would operate as a fixed-route electric shuttle with free hop-on/hop-off service. The route would require one vehicle to provide 15-minute headway service from Weeks Ave. to the Naples Botanical Garden from 11:00 a.m. to 9:00 p.m.
Downtown Autonomous Circulator		Would address the parking shortage in downtown and would begin on S. 4th Ave. from S. 9th St. to S. 3rd St. and go south along S. 3rd St. to S. 13th Ave.
Naples Pier Electric Shuttle		The downtown autonomous circulator would alleviate parking demand in downtown. It would begin at Naples Pier and run along Broad Avenue with a stop at Crayton Cove, before going north along S. 8th St. to S. 6th Ave.
Mobility-On-Demand		Uses on-demand information, real-time data, and predictive analytics that provides travelers the best transportation choice for their needs. Service can be requested via a mobile app, website, or by calling CAT. Helps solve the 'first/last mile' problem associated with limited access to transit. Four MOD Zones identified: Golden Gate, North Naples, Naples Zone, and Marco Island.
Vanpooling (Everglades City)		Indicated by FDOT District 1 as a workable solution for rural communities, such as Everglades City. The proposed program could connect commuters from Everglades City to the Government Center.
Capital Infrastructure		
Regionwide Technology		The technology needs outlined in the TDP's Situation Appraisal includes implementing or upgrading transit scheduling and dispatching software, installing automatic passenger count and vehicle announcement systems for fixed-route vehicles, updating fare collection systems, and enhancing on-board safety measures.
Bus Stop Infrastructure		Improve benches, shelters, bicycle storage facilities, and other infrastructure at bus stops to enhance the rider experience and potentially attract new riders.
Improve ADA Accessibility		Improve bus stop safety and ADA accessibility throughout the entire system for all riders.
Replace and Add New Vehicles		Continue to replace existing fleet and add new vehicles in order to provide new service.
Park-and-Ride Lots		Improve transit access through the development of park-and-ride lots.

Other improvements and policy recommendations for transit service needs include:

- Pursue public-private partnerships local hotels in Marco Island to support Route 21, the proposed new service - Island Trolley and MOD.
- Brand buses on the beach and those associated with proposed MOD services.
- Conduct a comprehensive analysis of the existing CAT network, routes, and further study proposed new service.
- Create a transfer hub along the urbanized area of Immokalee Road to provide passenger transfers, vehicle staging, and driver relief.
- Establish a coordinating committee with the region's local planning departments to review transportation needs and

ensure funding and strategies are in place for implementation.

- Establish transit service policies to adopt in Collier County's land development regulations.
- Modify the Land Development Code and Development Review processes to include recommendations from the transit impact study by coordinating with Collier County and local municipalities.
- Begin coordination with LeeTran to explore a seamless fare system between LeeTran and CAT.
- Further study a new CAT and LeeTran route that connects Immokalee to the University of Florida/IFAS satellite campus and Lehigh Acres. The study will include roadway constraints, determining final alignment, endpoint, and stop locations.

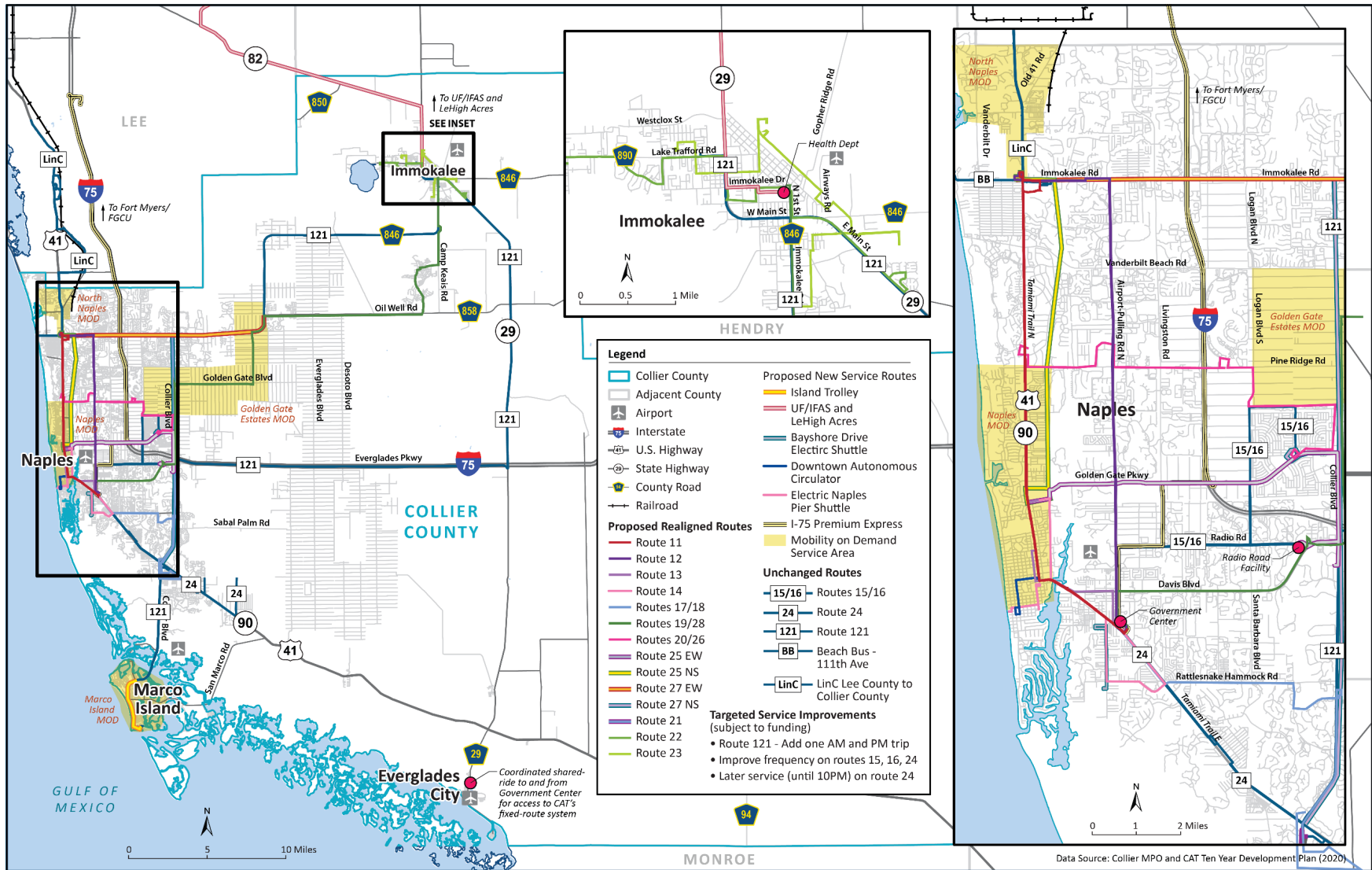


Figure 4-10. Transit Network Service Needs

4-5 Air Transportation Needs

Within the Collier MPO jurisdiction are four publicly owned airports:

- Naples Municipal Airport
- Immokalee Regional Airport
- Marco Island Executive Airport
- Everglades Airpark

The Collier County Airport Authority, which is a branch of the local government overseen by the Collier County BCC, oversees the development and management of the airports in Immokalee, Marco Island, and Everglades City. The City of Naples Airport Authority is charged with the operation, development, and improvements of the Naples Airport. The closest international airport to the Collier County area is the Southwest Florida International Airport, which is located to the north in Fort Myers in Lee County.

Naples Airport

Naples Airport is located in the City of Naples and is bounded by Corporate Flight Drive to the north, North Road to the south, Airport Pulling Road to the east, and the Gordon River to the west. Public access to the airport is at the intersection of Radio Road and Airport Pulling Road. In Fiscal Year 2019, there were 112,800 takeoffs and landings. The airport typically houses 308 aircraft, which significantly increases during the seasonal months.²⁰ There is no regularly scheduled passenger service at this airport. However, it maintains a Title 14 CFR,

Part 139 Airport Operating Certificate to accommodate both scheduled and unscheduled operations. According to the *Naples Airport Master Plan*,²¹ in 2017 the airport operated at 56 percent capacity and is forecasted to operate at 84 percent capacity by 2038. The airport master plan includes capital improvements through 2039. There are no plans to expand the airport. The roadway project needs include intersection improvements at Airport Pulling Road and Radio Road to accommodate future airport operations.

Immokalee Regional Airport

The Immokalee Regional Airport is situated on 1,333 acres and is bordered by Immokalee Road to the south and Airway Road to the west. Airpark Boulevard provides public access to the airport. As discussed earlier, this airport has been designated for a 60-acre Foreign Trade Zone, which includes portions of the Florida Tradeport Industrial Park. The industrial park covers 400 acres and is accessed by Airpark Boulevard. The airport also includes the Immokalee Regional Raceway (International Hot Rod Association Drag Strip) and is used for aerial firefighting and crop dusting operations. The *Immokalee Regional Airport, Airport Layout Plan Update, 2017*²² notes that the airport operations are expected to grow through 2037 requiring some airfield improvements. The roadway project needs include widening Immokalee Road from SR 29 to Airpark Boulevard to accommodate future airport operations.

²⁰ <https://flynaples.com/about/>

²¹ <https://flynaples.com/wp-content/uploads/2020/04/APF-MP-Consolidated-Draft-Report-February-29-2020.pdf>

²² Immokalee Regional Airport, Airport Layout Plan Update

Marco Island Executive Airport

The Marco Island Executive airport is located 12 miles south of downtown Naples and has one runway that measures 5,000 feet. The airport can accommodate smaller general aviation aircraft as well as business jets.

Everglades Airpark

The Everglades Airpark is situated on 29 acres and is located immediately southwest of the Big Cypress National Preserve and is surrounded on three sides by the waters of the Everglades National Park. The Fakahatchee Strand State Preserve and Collier Seminole Park are to the north. The airpark primarily supports recreational flying, environmental patrol, and flight training. It includes one 2,400-foot-long runway and is considered Collier County's Eco-tourism Airport.

Dade-Collier Training and Transition Airport

Located just west of the Collier and Miami-Dade County line, the Dade-Collier Training and Transition Airport (TNT) provides a precision-instrument landing and training facility in South Florida for commercial pilots, private training, and small military operations. Originally named the Everglades Jetport, the airport includes one 10,499-foot-long runway and is operated by the Miami-Dade Aviation Department. The airport is situated within a 24,960-acre property and has approximately 900 acres of developed and operational land. The remaining area is managed and operated by the Florida Game and Freshwater Fish Commission.