AGENDA
CMC
Congestion Management Committee
Collier County Transportation Management Services Department
South Conference Room
2885 South Horseshoe Drive
Naples, Florida 34104

NOTE: THIS IS AN IN-PERSON MEETING

January 17, 2024
2:00 p.m.

1. **Call to Order**
2. **Roll Call**
3. **Approval of Agenda**
4. **Approval of November 15, 2023 Meeting Minutes**
5. **Open to Public for Comment on Items Not on the Agenda**
6. **Agency Updates**
   A. FDOT
   B. MPO
   C. Other
7. **Committee Action**
   A. Elect Chair and Vice-Chair
   B. Congestion Management Project Applications – Preliminary Rating and Ranking of Projects
8. **Reports and Presentations (May Require Committee Action)**
9. **Member Comments**
10. **Distribution Items (No presentation)**
11. **Next Meeting Date:**
    March 20, 2024, 2 p.m.
12. **Adjournment**

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

CONGESTION MANAGEMENT COMMITTEE of the
COLLIER METROPOLITAN PLANNING ORGANIZATION
MEETING MINUTES
November 15, 2023, 2:00 p.m.

1. Call to Order

Ms. Lantz called the meeting to order at approximately 2:02 p.m.

2. Roll Call

Ms. Miceli called the roll and confirmed a quorum was present in the room.

CMC Members Present In-Person
Leandro A. Goicoechea
Alison Bickett
Dave Rivera
Dayna Fendrick
Don Scott
Karen Homiak
Lorraine Lantz
Brian Wells *(for Omar De Leon)*

CMC Members Absent
Omar De Leon
Justin Martin

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

Others Present
Victoria Peters, FDOT Community Liaison

3. Approval of the Agenda

Mr. Scott *moved to approve the agenda.* ***Mr. Rivera*** *seconded. Carried unanimously.*

4. Approval of the July 19, 2023 Meeting Minutes

Ms. Homiak *moved to approve the July 19, 2023 minutes.* ***Ms. Bickett*** *seconded. Carried unanimously.*

5. Public Comments for Items not on the Agenda

None

6. Agency Updates

A. FDOT

Ms. Peters: We are working on the Moving Florida Forward projects. I was requested to put some funds toward some new earmarked projects via legislative budget requests, including Green Blvd and 16th Street. Member projects are coming in strong. FDOT has already received 80 projects for the state. I will be sending out an email questionnaire with questions like, "For what phase of the project are the funds being requested?", "Is the fund request enough for the whole project?", and "Is the project in the Long-Range Transportation Plan?". Having the answers to these questions will help FDOT get the projects programmed more effectively.

B. MPO

Mr. Kingston Candidate interviews for MPO Executive Director will be held at an MPO Board special meeting December 8, 2023 at 9:30 a.m., followed by the regular MPO Board meeting 1:00 p.m. later that day. Moving Florida Forward projects are in motion. We have prepared amendments, including some Transportation Improvement Program (TIP) amendments for the projects. The amendments will be reviewed by the Technical and Citizens Advisory Committees, and then will be heard by the MPO Board.

C. Other

(i) City of Naples

Ms. Bickett: We recently had a workshop for our South Golf Drive Street Improvement Project (complete street initiative of a multimodal transportation corridor design, including new sidewalk(s), potential parking spaces, buffered bike lanes, stormwater infrastructure, landscape, and irrigation improvements). We have had numerous meetings and email communications with the residents who live on South Golf Drive. They are concerned about the impacts of the project

and do not want their driveways adjusted. They have asked about the possibility of changing the street structure to avoid their driveways being impacted. The City Council did not have enough votes to move the project forward, so we may be presenting the project to the Council again.

Mr. Rivera: We also recently had a meeting with FDOT regarding 10th Street and 5th Avenue South, where a large development is being constructed. The developer's traffic engineer designer came up with a design that would create a double left-hand turn at the westbound thru lane going to 5th Avenue South, which would eliminate one of the straight through roads. At the meeting with FDOT we were looking at some different solutions.

(ii) Collier County Public Transportation & Neighborhood Enhancement (PTNE)

No updates were given.

(iii) Collier County Transportation Planning

No updates were given.

(iv) Collier County Traffic Management Center (TMC) Operations

No updates were given.

(v) Lee County MPO

No updates were given.

7. Committee Action

A. Congestion Management Project Applications - Presentations and Review

Mr. Kingston: This is the Congestion Management project applications presentation and review. This is for the Committee to receive presentations by submitting agencies, review the submitted project applications, and discuss ranking of projects. Congestion Management projects are slated by MPO Board policy to receive a programming amount for FY 2030 of approximately $5.2 million in combined Transportation Alternative - Urban (TALU), Surface Transportation Block Grant – Urban (SU) and Carbon Reduction Program – Urban (CARU) funds. The MPO received four applications by the September 29, 2023 due date for funding in the total amount of $5,471,375. Today is for presentations and question-and-answer with the Committee.. The remainder of the schedule for the 2023/2024 Congestion Management Call for Projects is as follows:

- January 2024: CMC Preliminary Rating and Ranking of Projects
- March 2024: CMC Final Rating and Ranking of Projects
- April 2024: CAC/TAC Review and Endorsement Following Presentations by Submitting Agencies
- May 2024: Preliminary MPO Board Review - Presentations by Submitting Agencies
- June 2024: MPO Board approval of Final List of Prioritized Projects

Staff recommendation is for the Committee to review the submitted projects and discuss the ranking of projects in the next phase of the application process.

City of Naples

City of Naples Project Application 1: Fiber Connections and Mast-Arm Upgrades to Crayton Signalized Intersections

Mr. Rivera: This application is to provide fiber communications to the intersections of Harbour Drive, between US-41 and Crayton Road, and Mooring Line Drive between US-41, and Crayton Road, as well as upgrade them with cameras. Both intersections are on evacuation routes. With the cameras we would be able to see congestion, and with the fiber communications, we would be able to adjust the timings of the lights from the office, which would improve traffic as well as pedestrian safety and widen the intersection for a continued bike lane for bicyclist safety. Currently, there are only two crosswalks at Mooring Line Drive. We would like to create a four-way crosswalk for pedestrian safety. We would also like to create crosswalks at Harbour Drive which does not have any crosswalks. We are in the process of creating a traffic communication system with Collier County and FDOT by sharing our traffic videos during hurricanes. Such communications with FDOT and the County would benefit from placing cameras in these intersections. We would like to elevate traffic cabinets by about 3 or 4 feet, so they won't get submerged in a flood.

City of Naples Project Application 2: US 41 from 3rd Ave to State Road 84 (Davis Blvd) Intersection/Mobility Improvements, Project Development and Environment (PD&E) Study

Ms. Bickett: The project limits are US 41 from 3rd Avenue to State Road 84 (Davis Blvd) roadways. We have been working with FDOT on improvements such as creating better multimodal connectivity to the greater Naples area from downtown Naples in response to major redevelopment out east, as well as improving facilities for pedestrians in the downtown area. The request is for the study to analyze the cumulative effect of redevelopment projects on roadways' functionality from a Complete Streets perspective utilizing a Safe Systems approach. The area is very constrained, and the lack of multimodal design efficiency causes bicyclists to ride on the sidewalks or ride in the wrong direction, and pedestrians to walk in the street out of necessity. Another issue for bicyclists and pedestrians in this area is the long process and effort to cross Davis Blvd from west to east. Improving this area was one of the top priorities that came out of the City of Naples Micromobility Study.

Collier County

Collier County Project Application 1: Advanced Traffic Management System (ATMS) and Controller Update

Mr. Goicoechea: This application is for the replacement and upgrade of controllers on all of Collier County's 222 traffic signals. This is a $1.6 million project. The controller is the heart of intersection. It manages everything. Our controllers were replaced in 2016-17, and they are nearing their end of usefulness. With all the transportation technology upgrades, the controllers must also be upgraded. We believe we can continue using our current controllers until FY 2030.

[The ATMS and traffic signal controllers provide Traffic Management Center (TMC) staff real-time data on the functioning of Intelligent Transportation Systems (ITS) at signalized intersections throughout the County's roadways. The systems regulate and monitors vehicle detection, pedestrian movement, traffic responsive operations, time of day plans, preemption/priority signal treatment for Fire/Rescue, EMS, and Bus traffic, provides Signal Phase and Timing (SPaT) data to vehicle equipped with CV2X (Connected Vehicles to Infrastructure) capabilities. Collier County Traffic Operations continues to adopt ITS innovations on County roadways, to mitigate congestion and enhance safety.]

Mr. Rivera: If this is the technology Collier County will be working with and we plan to link the City of Naples and the County, I believe the City of Naples should be included in the controller upgrade, which would be approximately 40 more controllers.

Mr. Goicoechea: Initially, the City of Naples was included in this application but was removed because the City and the County were unable to come to an agreement, so we were told we had to remove the City of Naples from the application.

Ms. McLaughlin: I encourage **Mr. Goicoechea** and **Mr. Rivera** to work together and see if you can expand the application to include the City of Naples over time, submit an addendum, and we can see if we can get more funds when the time comes.

A group discussion followed, and it was mentioned that with the technological advancements that will most likely occur in the next several years, the possibility for the City of Naples inclusion in the application could be reassessed, and if there was an agreement of terms on both sides, an addendum could be added to facilitate the inclusion.

Collier County Project Application 2: (ITS) Retiming of Arterials

Mr. Goicoechea: The project will consist of retiming 39 signalized intersections along 4 segments of arterials, including, Airport Road from Golden Gate Parkway to Pelican Marsh Boulevard/Tiburon Boulevard, on Pine Ridge Road from Goodlette-Frank Road to Logan Boulevard, on Vanderbilt Beach Road from Goodlette-Frank Road to Island Walk Boulevard and on Livingston Road from Pine Ridge Road to Vanderbilt Beach Road, thus reducing delay and improving traffic progression on these key arterials. The Federal Highway Administration (FHWA) states that Retiming traffic signals every three to five years is generally considered to be

good engineering practice. Redevelopment warrants this. Looking forward, we should do a full arterial retiming from north to south and east to west every 3-5 years as a practice.

A group discussion followed, and the subject of mitigating traffic issues by scheduling for things like scheduling retiming signals (even with technology advancement considerations) was mentioned, including the possibilities of how to apply for ongoing project funding.

8. Reports and Presentations (May Require Committee Action)

A. Topics for Next Meeting

Ms. McLaughlin: There is a Congestion Management Project Applications score sheet in your packet for you to review and rank the projects that have been presented. You can complete the score sheet and discuss the results at the January CMC meeting. **Ms. Lantz** suggested providing a deadline for Committee members to submit rankings prior to the meeting. After some discussion, **Mr. Kingston** established January 2nd as the deadline.

9. Member Comments

None.

10. Distribution Items (No presentation)

A. Approved 2024 MPO Calendar

Mr. Kingston: The 2024 MPO Meeting Calendar was approved at the MPO Board meeting on December 8, 2023.

11. Next Meeting Date

January 17, 2024, 2:00 p.m. –Transportation Management Services Bldg. South Conference Room, 2885 S. Horseshoe Dr., Naples, FL, 34104 – in person.

12. Adjournment

There being no further comments or business to discuss, **Ms. Lantz** adjourned the meeting at 3:36 p.m.

EXECUTIVE SUMMARY
COMMITTEE ACTION
ITEM 7A

Elect Chair and Vice-Chair

OBJECTIVE: For the Committee to elect a Chair and Vice-Chair for calendar year 2024.

CONSIDERATIONS: The CMC Bylaws require that the Committee elect a Chair and Vice-Chair at the first regularly scheduled meeting of each year when a quorum is attained.

Any Committee member may nominate or be nominated as Chair/Vice-Chair. Elections shall be decided by the majority vote of Committee members present. The Chair and Vice-Chair shall serve a one-year term or until a successor is elected. Lorraine Lantz is the current Vice-Chair. There is no Chair at this time.

STAFF RECOMMENDATION: That the Committee elect a Chair and Vice-Chair for calendar year 2024.

ATTACHMENT(S):
None

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

EXECUTIVE SUMMARY
COMMITTEE ACTION
ITEM 7B

Congestion Management Project Applications – Preliminary Rating and Ranking of Projects

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OBJECTIVE: For the Committee to review the results of the submitted Evaluation Criteria and Scoring Matrices and make a preliminary rating and ranking of submitted project applications.

CONSIDERATIONS: Four of the eleven voting CMC members have submitted Evaluation Criteria and Scoring Matrices of the four project applications received for funding in the total amount of approximately $5.4 million. These rate each by points under 12 criteria which are added as a total for ranking of priority. Staff computed the total number of points for each application and divided that by 4 to determine the average. The Submitted Project Summary is shown in **Attachment 1**. The averaged ranking from individual score sheets and the sheets themselves are shown in **Attachment 2.** The application submittals are shown in **Attachments 3 - 6**.

The remainder of the schedule for the 2023/2024 Congestion Management Call for Projects is as follows:

- January 2024: CMC Preliminary Rating and Ranking of Projects
- March 2024: CMC Final Rating and Ranking of Projects
- April 2024: CAC/TAC Review and Endorsement Following Presentations by Submitting Agencies
- May 2024: Preliminary MPO Board Review - Presentations by Submitting Agencies
- June 2024: MPO Board approval of Final List of Prioritized Projects

STAFF RECOMMENDATION: For the Committee to discuss and make a preliminary ranking of submitted projects to be finalized at a subsequent meeting.

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

Attachments:

1. Submitted Project Summary Table
2. Submitted Evaluation Criteria/Scoring Matrices and Averaged Ranking Summary
3. Naples Application – Fiber connections and mast-arm upgrades to Crayton signalized intersections
4. Naples Application – US 41 from 3rd Ave to SR 84 Intersection/Mobility Improvements PD&E
5. County Application – ATMS and Controller Update
6. County Application – (ITS) Retiming of Arterials

2023 CMP Congestion Management Strategy & Performance Measure Matrix

Project Name	Submitting Agency	Description	Funding Request	Congestion Management Strategy	CMP Performance Measure(s)
Fiber connections from US-41 to Mooring Line Drive & Crayton and Harbour & Crayton span-wire to mast arm intersection improvements	City of Naples	Fiber connections to intersections and upgrades from the existing span-wire assembly	$1,998,153	Demand mangement & Safety	safety, customer service, incident duration
US41 from 3rd Ave to SR 84 Intersection / Mobility Improvements PD&E	City of Naples	Analyze cumulative effects of redevelopment projects on US41's functionality from a Complete Streets Perpective and address Bike - Ped Safety Concerns utilizing a Safe Systems approach.	$1,118,220	Physical Roadway Capacity Enhancement	PD&E to look at ways to improve V/C ratio or to accommodate increased traffic without V/C ratio worsening
				Bicycle & Pedestrian	PD&E will identify improvements that enhance safety of bike-ped facilities; may identify improvements that lead to wider sidewalks as shared use paths
				Transit	PD&E to look at improvements that may increase passenger trips on bus route
				Safety	PD&E will identify improvements that enhance safety of bike-ped facilities
ATMS and Controller Update	Collier County	ATMS and Controller Update	$1,622,000	ITS & Access Management - Active Roadway Management	Report on nature of comments/responses and customer satisfaction
ITS Retiming of Arterials	Collier County	ITS Retiming of Arterials	$633,000	ITS & Access Management - Active Roadway Management	Transit On-Time Performance

Evaluation Criteria and Scoring Matrix

1/17/24 Summary of 4 Responses

Project No.	Project Name	Submitting Agency/ Jurisdiction	TOTAL POINTS	AVERAGE POINTS	RANKING
1	Fiber Connections and mast-arm upgrades to Crayton signalized intersections	City of Naples	**112**	**28**	**1**
2	US 41 from 3rd Ave to SR 84 Intersection/ Mobility Improvements PD&E	City of Naples	**103**	**26**	**3**
3	ATMS and Controller Update	Collier County	**108**	**27**	**2**
4	(ITS) Retiming of Arterials	Collier County	**91**	**23**	**4**

Evaluation Criteria and Scoring Matrix — 2023-2024 Call for Projects Congestion Management

			General Project Evaluation			Project Specific										
Project No.	Project Name	Submitting Agency/ Jurisdiction	Supported by Multiple Jurisdictions Yes - 3 pts No - 0 pts	Local Technical and/or Monetary Contribution? Yes 3pt No 0 pts	Requires Acquisition of ROW Yes 0 pts No 3 pts	Uses TSM Approach *High 5 pts Med 3pts Low 1 pt	Uses TDM Strategy *High 5pts Med 3 pts Low 1 pt	Existing ITS *High 5 pts Med 3pts Low 1 pt	Increases Security Yes 3pt No 0 pt	Increases Safety *High 5pts Med 3 pts Low or No 0 pts	Promotes Regional Connectivity *High 5pts Med 3pts Low 1 pt	Promotes Multi-Modal Solutions *High 5pts Med 3 pts Low 1 pt	Protects Environmental Resources *High 5 pts Med 3 pts Low 1 pt	Promotes Economic Development or Freight Movement *High 5 pts Med 3pts Low 1 pt	TOTAL POINTS	RANKING
1	Fiber Connections and mast-arm upgrades to Crayton signalized intersections	City of Naples	3	2	3	1	1	5	3	5	5	3	3	1	35	1
2	US 41 from 3rd Ave to SR 84 Intersection/ Mobility Improvements PD&E	City of Naples	3	0	3	1	1	1	0	5	5	5	5	1	30	2
3	ATMS and Controller Update	Collier County	0	0	3	1	1	5	3	3	3	5	3	1	28	3
4	(ITS) Retiming of Arterials	Collier County	3	0	3	1	1	5	0	3	1	1	5	3	26	4

*TSM Scoring

High	intersection improvements - turn lanes, signal improvements, enhances emergency operations response on LOS F facilities
Med	intersection improvements -turn lanes, signal improvements, enhances emergency operations response on LOS E facilities
Low	intersection improvements - turn lanes, signal improvements, enhances emergency operations response on LOS D facilities

ITS Scoring

High	affects arterial roadways; or addresses critical need due to insufficient communication and/or system improvements
Med	affects collector roadways or addresses a critical need
Low	nonspecific location or project to address contingency system back up or purchase miscellaneous equipment

Regional Connectivity

High	enhances inter-county connectivity of highways or transit
Med	enhances inter-county connectivity of pathways, bikeways or tails
Low	on a facility identified on regional network

TDM Scoring

High	adds new transit route or new park & ride facility or cooperates with regional TDM program
Med	increases existing carpooling, vanpooling, transit or a park & ride facility
Low	adds new bicycle or pedestrian facilities

Safety Scoring

High	addresses documented safety problem; reduces total number vehicular, ped/bike or transit related crashes or serious injuries; reduces number of transit related injuries
Med	increases bike/ped safety at high traffic location; and/or increases/improves safety of emergency responders; or reduces number of secondary incidents resulting from primary incident

Multimodal Scoring

High	improves at least 3 modes or increases connectivity between motorized and non-motorized modes; advances recommendations from existing Bike/Ped Safety Studies, Audits, Community Walkability Studies
Med	enhances at least 2 modes
Low	improves 1 mode; increases transit ridership on a specific route, increases transit enhancements such as park & ride lots or bus shelters or other enhancements for non-motorized facilities

Environmental Scoring

High	reduces air quality emissions; reduces fuel consumption by reducing corridor congestion
Med	reduces fuel consumption by reducing specific intersection delays; improves monitoring and reporting capability
Low	supports general congestion avoidance measures

Economic Development/Freight Movement Scoring

High	located at and directly affects access to airports, major activity or freight activity centers
Med	located near and affects access to airports, high employment areas, freight activity centers
Low	not located near airports, high employment areas but can promote overall economic development

Submitted by Alison Bickett

Evaluation Criteria and Scoring Matrix **2023-2024 Call for Projects Congestion Management**

			General Project Evaluation			Project Specific											
Project No.	Project Name	Submitting Agency/ Jurisdiction	Supported by Multiple Jurisdictions Yes - 3 pts No - 0 pts	Local Technical and/or Monetary Contribution? Yes 3pt No 0 pts	Requires Acquisition of ROW Yes 0 pts No 3 pts	Uses TSM Approach *High 5 pts Med 3pts Low 1 pt	Uses TDM Strategy *High 5pts Med 3 pts Low 1 pt	Existing ITS *High 5 pts Med 3pts Low 1 pt	Increases Security Yes 3pt No 0 pt	Increases Safety *High 5pts Med 3 pts Low or No 0 pts	Promotes Regional Connectivity *High 5pts Med 3pts Low 1 pt	Promotes Multi-Modal Solutions *High 5pts Med 3 pts Low 1 pt	Protects Environmental Resources *High 5 pts Med 3 pts Low 1 pt	Promotes Economic Development or Freight Movement *High 5 pts Med 3pts Low 1 pt	TOTAL POINTS	RANKING
1	Fiber Connections and mast-arm upgrades to Crayton signalized intersections	City of Naples	3	3	3	3	0	3	3	3	0	0	0	0	23	3
2	US 41 from 3rd Ave to SR 84 Intersection/ Mobility Improvements PD&E	City of Naples	3	0	3	0	0	0	0	5	5	5	0	3	24	1
3	ATMS and Controller Update	Collier County	0	3	3	5	0	5	0	0	3	5	0	0	24	2
4	(ITS) Retiming of Arterials	Collier County	0	0	3	3	0	5	0	0	3	5	0	0	19	4

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Regional Connectivity

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Med	enhances inter-county connectivity of pathways, bikeways or tails
Low	on a facility identified on regional network

TDM Scoring

High	adds new transit route or new park & ride facility or cooperates with regional TDM program
Med	increases existing carpooling, vanpooling, transit or a park & ride facility
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Omar De Leon

Evaluation Criteria and Scoring Matrix **2023-2024 Call for Projects Congestion Management**

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2	US 41 from 3rd Ave to SR 84 Intersection/ Mobility Improvements PD&E	City of Naples	0	0	3	1	1	1	0	5	3	3	1	3	21	
3	ATMS and Controller Update	Collier County	0	0	3	1	1	5	3	0	5	5	1	3	27	
4	(ITS) Retiming of Arterials	Collier County	0	0	3	1	1	5	0	0	1	5	1	3	20	

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Leandro Goicoechea

Evaluation Criteria and Scoring Matrix

2023-2024 Call for Projects Congestion Management

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2	US 41 from 3rd Ave to SR 84 Intersection/ Mobility Improvements PD&E	City of Naples	3	0	3	1	1	3	0	3	3	5	5	1	28	3
3	ATMS and Controller Update	Collier County	3	0	3	1	1	5	0	3	3	3	3	3	29	2
4	(ITS) Retiming of Arterials	Collier County														
			3	0	3	1	1	5	0	3	1	3	3	3	26	4

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Low	intersection improvements - turn lanes, signal improvements, enhances emergency operations response on LOS D facilities

ITS Scoring

High	affects arterial roadways; or addresses critical need due to insufficient communication and/or system improvements
Med	affects collector roadways or addresses a critical need
Low	nonspecific location or project to address contingency system back up or purchase miscellaneous equipment

Regional Connectivity

High	enhances inter-county connectivity of highways or transit
Med	enhances inter-county connectivity of pathways, bikeways or tails
Low	on a facility identified on regional network

TDM Scoring

High	adds new transit route or new park & ride facility or cooperates with regional TDM program
Med	increases existing carpooling, vanpooling, transit or a park & ride facility
Low	adds new bicycle or pedestrian facilities

Safety Scoring

High	addresses documented safety problem; reduces total number vehicular, ped/bike or transit related crashes or serious injuries; reduces number of transit related injuries
Med	increases bike/ped safety at high traffic location; and/or increases/improves safety of emergency responders; or reduces number of secondary incidents resulting from primary incident

Multimodal Scoring

High	improves at least 3 modes or increases connectivity between motorized and non-motorized modes; advances recommendations from existing Bike/Ped Safety Studies, Audits, Community Walkability Studies
Med	enhances at least 2 modes
Low	improves 1 mode; increases transit ridership on a specific route, increases transit enhancements such as park & ride lots or bus shelters or other enhancements for non-motorized facilities

Environmental Scoring

High	reduces air quality emissions; reduces fuel consumption by reducing corridor congestion
Med	reduces fuel consumption by reducing specific intersection delays; improves monitoring and reporting capability
Low	supports general congestion avoidance measures

Economic Development/Freight Movement Scoring

High	located at and directly affects access to airports, major activity or freight activity centers
Med	located near and affects access to airports, high employment areas, freight activity centers
Low	not located near airports, high employment areas but can promote overall economic development

submitted by Dave Rivera

Collier MPO Congestion Management – Project Concept Sheet 2023

(Each fillable area can accommodate multiples lines.)

A. REQUIRED PROJECT INFORMATION:

1. Name of Project: Fiber Connections and mast-arm upgrades to Crayton signalized intersections
2. Name of Applicant: Alison Bickett
3. Name of Submitting Jurisdiction: City of Naples
4. If this is a multi-jurisdictional application, please list the jurisdictions involved
   City of Naples is immediate stakeholder with access by FDOT & Collier County
5. Describe the project and its purpose, including the project limits (if applicable). Attachment included?
   Project limits: Harbour Drive - Between US-41 and Crayton Road and Mooring Line Drive between US-41 and Crayton Road.
   The project is proposed to provide fiber to both intersections (Crayton Rd. & Harbour Dr and Crayton & Mooring Line Dr.) for communication including video to each. This will allow the video to be shared with Collier County and FDOT. The video could also assist with hurricane evacuations from the coastline
6. Amount of CMC/ITS SU Box funds being requested $_____ Estimated Total Project Cost $ TBD
   If SU Box funds are not requested, what funding source would be most appropriate?
7. Are there specific technical and/or monetary local contributions for this project? If yes, please explain.
   YES ☑ NO ☐
   The City has preliminary intersection design plans for Crayton Rd. & Mooring Line Dr. and is preparing to hire design firms to provide 100% design for both intersctions.
8. Anticipated time to complete the project: 10-12 months for updated design plans and final completion.
9. Does this project require the acquisition of Right-of-Way? YES ☐ NO ☑
10. Is this project on a congested corridor? Identify the corridor. YES ☑ NO ☐
    Harbour Dr. and Mooring Line Dr. - Crayton Rd has a heavy amount of traffic
11. Does this project address a documented safety problem? Explain. YES ☐ NO ☑
12. Does this project address a strategy listed on the implementation matrix? YES ☑ NO ☐
13. Does this project maintain concurrency with FDOT Regional ITS architecture? YES ☑ NO ☐
14. Does this project promote one or more multi-modal solutions by advancing recommendations from an adopted MPO study? Please identify. YES ☐ NO ☑

B. PROJECT SPECIFIC DESCRIPTION:

CHECK ALL STATEMENTS BELOW THAT APPLY TO THE PROJECT WITH AN EXPLANATION OF HOW IT APPLIES.

*If project is funded, you will be expected to provide data to the MPO within 2 years and 5 years of construction/ implementation for performance measures selected. (*Each fillable area can accommodate multiples lines.)*

☑ 1. Travel Demand - Describe how the project addresses one or more of the following Performance Measures:

a. Percent of roadway miles by volume to capacity (V/C) ratio

b. Percent of vehicle miles traveled by volume to capacity (v/c) ratio

c. Number of signalized intersections connected to ATMS

This will connect the FDOT, Collier County and City systems.

☐ 2. Transit Travel – Describe how the project addresses one or more of the following performance measures:

a. Average bus route service frequency and number of routes

b. Passenger trips (annual ridership)

c. Passenger trips per revenue hour

d. Transit on time performance

☑ 3. Pedestrian/Bicycle Facilities - Describe how project addresses one or more of the following Performance Measures:

a. Centerline miles of bicycle lanes

At Mooring Line Dr. & Crayton, the bike lane is proposed to better connect through the intersection.

b. Linear miles of connector sidewalks on arterial roadways

c. Linear miles of Shared Use paths adjacent to roadways

___ 4. Goods Movement – Describe how project addresses one or more of the following performance measures:

a. Vehicle miles traveled (VMT) on designated truck routes with V/C greater than 1/0

b. Number of crashes involving heavy vehicles/trucks

☑ 5. Safety– Describe how project addresses one or more of the following performance measures:

a. Total crashes

*We can better manage and monitor the intersection for timing improvements, evacuations and response time.

b. Motor vehicle severe injury crashes

c. Motor vehicle fatal crashes

d. Pedestrian and bicycle severe injury and fatal crashes

☐ 6. TDM– Describe how project addresses one or more of the following performance measures:

a. Number of people registered in the FDOT Commute Connector database that have an origin in Collier County

☐ 7. Accessibility– Describe how project addresses one or more of the following performance measures:

a. Share of regional jobs within ¼ mile of transit

b. Share of regional households within ¼ mile of transit

☑ 8. Incident Duration– Describe how project addresses one or more of the following performance measures:

a. Mean time for responders to arrive on scene after notification

The improvements are expected to lead to a reduction in the response time with connectivity to the intersection.

b. Mean incident clearance time

c. Road Ranger stops

☑ 9. Customer Service– Describe how project addresses one or more of the following performance measures:

a. Report on nature of comments/responses and customer satisfaction

This will allow our traffic staff to monitor the intersection for improved timings. In the event of an evacuation, we can make timing adjustments to improve the evacuation time from the coastal areas.

District One
Priority Project Information Packet

Please fill out this application completely. Please ensure all attachments are LEGIBLE Applications containing insufficient information will not be reviewed by the FDOT.

Name of Applying Agency: City of Naples

Project Name: Fiber connections from US-41 to Mooring Line Drive & Crayton and Harbour & Crayton span-wire to mast arm intersection improvements

Project Category:

Congestion Management ☐ TRIP ☐ CIGP ☐

Transportation Alternative ☒ Transit/Modal ☐

For more information on State Grant Programs (CIGP, SCOP, SCRAP, TRIP) please click here.

Is applicant LAP certified? Yes ☒ No ☐

Is project on State Highway System? Yes ☐ No ☒
If the project is off the state system and the applicant is LAP certified the project will be programmed as a LAP project.

Is the roadway on the Federal Aid Eligible System? Yes ☐ No ☒
If yes, provide Federal Aid roadway number: Click here to enter text.
If no, give local jurisdiction: Click here to enter text.
http://www.fdot.gov/statistics/fedaid/

Detailed Project Limits/Location:
Describe begin and end points of project, EX., from ABC Rd. to XYZ Ave. Limits **run south to north or west to east.** Include jurisdiction (city/county), project length, attach a labeled project, map.
The location of the project is within the City of Naples in Collier County. The project begins at US-41 and Mooring Line Drive. The fiber line is proposed to extend approximately 1,300-ft. west to Crayton Road with infrastructure improvements at the intersection of Mooring Line Drive and Crayton Road. The start of the connection for the Harbour Drive section commences at US-41 and extends 2,500-ft west to Crayton Road with proposed intersection improvements at the intersection of Harbour Drive and Crayton Road.

Discuss how this project is consistent with the MPO/TPO Long Range Transportation Plan?
Page Number (attach page from LRTP): ES-3-6; 3-5,3-6, 3-10 : Please see attached pages

Discuss the project in the local jurisdiction's Capital Improvement Plan?
(Attach page from CIP): The intersection improvements were previously proposed for roundabouts at both Mooring Line Dr. & Crayton and Harbour Dr. & Crayton. During this years budgeting discussions, City Council requested both interesections be designed as mast-arms and funding was identified to be used. The Department has sought proposals from the City's Qualified Firms for design of both intersection upgrades. The request is proposed to go before City Council on October 4, 2023. If approved, the City will have design plans in place for the intersection improvements in advance of construction.

Project Description

Phase(s) requested:

Planning Study ☐ PD&E ☐ PE ☒ ROW ☐ CST ☒ CEI ☐

Project cost estimates by phase (Please include detailed cost estimate and documentation in back-up information):

Phase (PD&E, ROW, PE, CST)	Estimated Total Cost	Funds Requested	Matching Local Funds	Local Fund Source	Type of Match (Cash, in-kind)
CST	**$1,998,153**	**1998153**	**0**	**0**	**0**

Total Project Cost: $ 1,998,153

Project Details: Clearly describe the existing conditions and the proposed project and desired improvements in detail. Please provide studies, documentation, etc., completed to-date to support or justify the proposed improvements. Include labeled photos and maps. (Add additional pages if needed):

Please see Attachment A – Project Scope

Constructability Review

For items 2-9 provide labeled and dated photos (add additional pages if needed)

1. Discuss other projects (ex. drainage, utility, etc.) programmed (local, state or federal) within the limits of this project? Click here to enter text.

2. Does the applicant have an adopted ADA transition plan? Yes ☒ No ☐

   Identify areas within the project limits that will require ADA retrofit. (Include GIS coordinates for stops and labeled photos and/or map.)

Click here to enter text.

3. Is there a rail crossing along the project?
   Yes ☐ No ☒
   What is the Rail MP?
   Enter MP

4. Are there any transit stops/shelters/amenities within the project limits?
   Yes ☐ No ☒

   How many? Click here to enter text.

   Stop ID number: Click here to enter text.

5. Is the project within 10-miles of an airport? Yes ☒ No ☐

6. Coordinate with local transit and discuss improvements needed or requested for bus stops?
   (add additional pages if needed):
   Click here to enter text.

7. Are turn lanes being added? Yes ☐ No ☒

   If yes, provide traffic counts, length, and location of involved turn lanes.
   Click here to enter text.

8. Drainage structures:
   - Number of culverts or pipes currently in place: Please see GIS information provided.
   - Discuss lengths and locations of each culvert along the roadway: Click here to enter text.
   - Discuss the disposition of each culvert and inlet. Which culverts are "to remain" and which are to be replaced, upgraded, or extended? Click here to enter text.
   - Discuss drainage ditches to be filled in?
     (Discuss limits and quantify fill in cubic yards) None
   - Describe the proposed conveyances system (add additional pages if needed.)
     Click here to enter text.
   - Are there any existing permitted stormwater management facilities/ponds within the project limits? Yes ☐ No ☒
   - If yes, provide the location and permit number (add additional pages if needed)
     Click here to enter text.

- Discuss proposed stormwater management permits needed for the improvements. It is not anticipated that the improvements will trigger a SFWMD permit.

- List specific utilities within project limits and describe any potential conflicts (add additional pages if needed): Click here to enter text.

- Discuss Bridges within project limits? none

- Can bridges accommodate proposed improvements? Yes ☒ No ☐
  If no, what bridge improvements are proposed? (Offset and dimensions of the improvements, add additional pages if needed):
  Click here to enter text.

9. Has Right-of-way (ROW), easements, or ROW activity already been performed/acquired for the proposed improvements? If yes, please provide documentation

   Yes ☒ No ☐

   If ROW or Easements are needed detail expected area of need (acreage needed, ownership status):
   No ROW or easements are anticipated to be needed.

10. Discuss required permits (ERP, Drainage, Driveway, Right of Way, etc.): Local permits may be necessary for the improvements, including Right-of-Way. An ERP is not anticipated.

    If none are needed, state the qualified exemption:
    Click here to enter text.

11. Are there any wetlands within the project limits? Yes ☐ No ☒

    If yes, list the type of wetlands, estimated acreage and if mitigation will be required. Please note whether the project is within the geographic service area of any approved mitigation banks. Provide any additional information:
    Click here to enter text.

12. Are there any federal or state listed/protected species within the project limits?
    Yes ☐ No ☒

    If yes, list the species and what, if any mitigation or coordination will be necessary: Click here to enter text.

    If yes, discuss critical habitat within the project limits: Click here to enter text.

13. Discuss whether any prior reviews or surveys have been completed for historical and archaeological resources (include year, project, results)
    None.

14. Are any Recreational, historical properties or resources covered under section 4(f) property within the project limits? Yes ☐ No ☒
    (Provide details) Click here to enter text.

15. Discuss whether any prior reviews or surveys have been completed for sites/facilities which may have potential contamination involvement with the proposed improvements. This should include a discussion of locations which may directly impact the project location, or be which may be exacerbated by the construction of the proposed improvements. No prior reviews or studies indicate any contamination.

16. Are lighting improvements requested as part of this project? Yes ☐ No ☒
    Please provide a lighting justification report for the proposed lighting.
    Click here to enter text.

17. Is a mid-block crossing proposed as part of the project? Yes ☐ No ☒
    If yes, please provide the justification for mid-block crossing.
    Click here to enter text.

Required Attachments

A. Detailed Project Scope with Project Location Map with sufficient level of detail (Please include typical section of proposed improvements)
B. Project Photos – dated and labeled (this is important!)
C. Detailed Cost Estimates including Pay Items
D. LRTP and Local CIP page
E. Survey/As-builts/ROW documentation/Utility/Drainage information
F. Detailed breakdown of ROW costs included in estimate (if ROW is needed/included in request or estimate)

Applicant Contact Information

Agency Name:
Mailing Address: 295 Riverside Circle, Naple, FL 34102
Contact Name and Title: Alison Bickett, P.E. – Traffic Engineer
Email: abickett@naplesgov.com **Phone: 239-213-5014**

Signature: Alison Bickett **Date:** 9/29/2023
Your signature indicates that the information included with this application is accurate.

Maintaining Agency:
Contact Name and Title: Bob Middleton – Public Works Director
Email: rmiddleton@naplesgov.com **Phone: 239-213-5003**

Signature: [signature] **Date:** 9/29/2023
Your signature serves as a commitment from your agency to maintain the facility requested.

MPO/TPO:
Contact Name and Title: Click here to enter text.
Email: Click here to enter text. **Phone:** Click here to enter text.

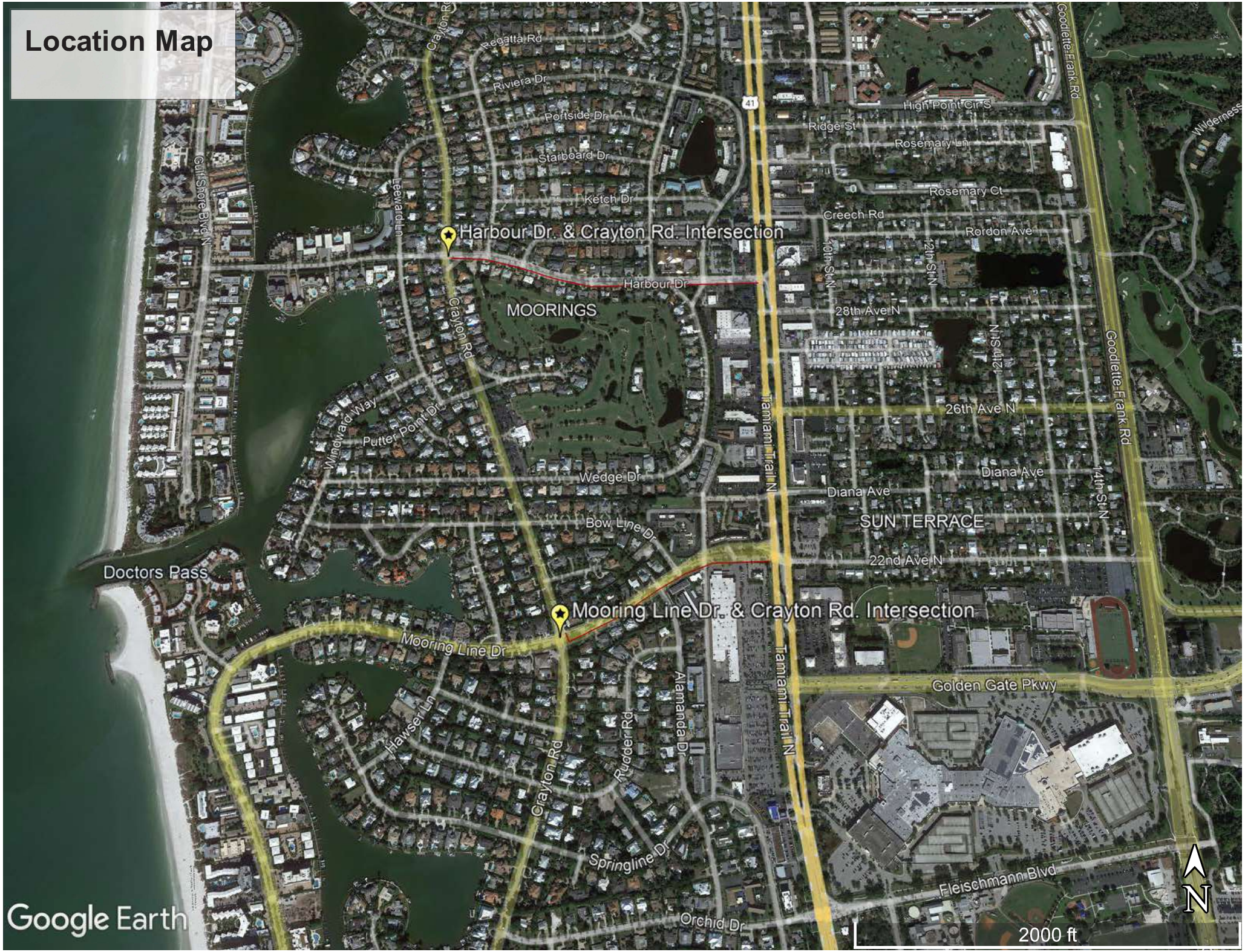
Signature: _____ **Date:** _____
Your signature confirms the request project is consistent with all MPO/TPO plans and documents, is eligible, and indicates MPO/TPO support for the project.

ATTACHMENT A - PROJECT SCOPE

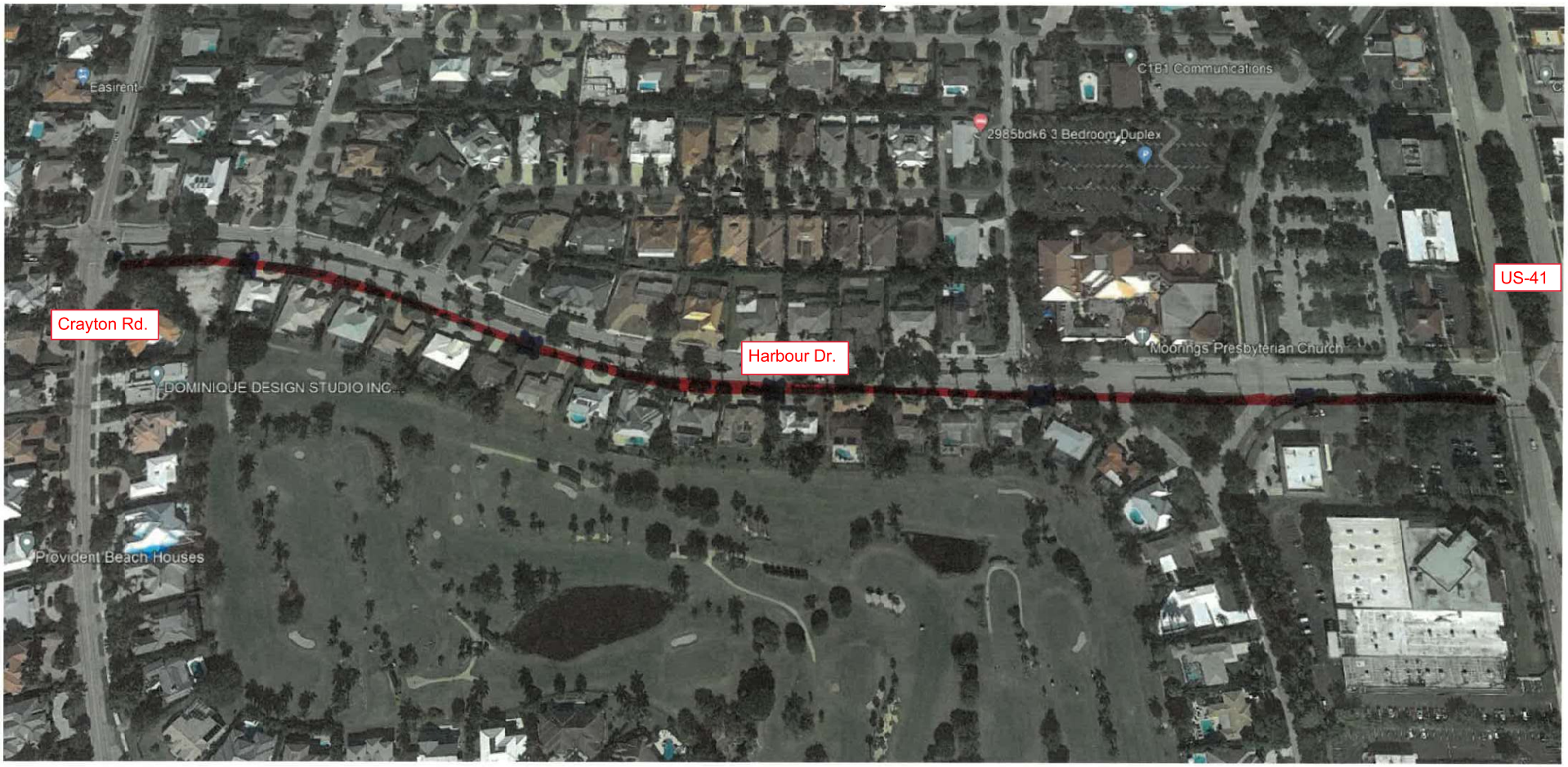
The City of Naples currently does not have fiber connections along Harbour Drive or Mooring Line Drive between US-41 to Crayton Road. The proposed fiber would provide connectivity between US-41 and the intersections of Crayton Road & Harbour Drive and Crayton Road & Mooring Line Drive. Both of the two intersections are currently span-wire assemblies. The City is proposing to replace their existing span wire intersections with mast arms to reduce the chance of losing signal operation after severe storms. This is consistent with the State system requirements. The Department's Plans Preparation Manual, Topic No. 625-000-007, Volume 1 – Chapter 7 requires that all traffic signals installed on the State Highway System that are within the Mast Arm Structures Boundary shall be supported by mast arms. Per FDOT's Traffic Engineering Manual, Section 3.5, it states "The mast arm structures boundary map follows an alignment of state roads that are parallel to an approximate ten miles distance to the coastline. This request includes adding conduit, pull boxes, fiber and tracer wire for the fiber connections and upgrades of the current span-wire systems." The existing locations are within 0.6 of a mile from the coast. With the need for resiliency the span-wire intersections are in need of upgrade.

The City previously put together a preliminary design and requested a proposal for the intersection upgrades at Mooring Line Drive and Crayton Rd. The preliminary design included striping adjustments (keyhole) for the bike lane approach along Mooring Line Drive westbound heading into the intersection for increased bike safety. The preliminary design is included in this package. The City has budgeted for design of the intersection improvements to upgrade the span-wire intersections to mast arms at both the Mooring Line Drive & Crayton Rd. location as well as the Harbour Drive and Crayton Rd location. The upgrades were proposed approximately 8 years ago but never moved forward as there was interest in roundabouts. Earlier this year, City Council voted to maintain signalized intersections at each location.

This project, shall it be funded, will provide an opportunity for quicker response time for accidents, monitoring of the area for traffic conditions, resiliency for future adverse conditions and being in a coastal area, they are primary routes for residents from the coast during evacuations. The connections will provide interlocal sharing of video and software data for the intersections between the City of Naples, Collier County, FDOT and the Collier County EOC.


Location Map
Harbour Dr. & Crayton Rd. Intersection
Mooring Line Dr. & Crayton Rd. Intersection
Harbour Dr
MOORINGS
Crayton Rd
Regatta Rd
Riviera Dr
Portside Dr
Starboard Dr
Ketch Dr
Leeward Ln
Gulf Shore Blvd N
Windward Way
Putter Point Dr
Wedge Dr
Bow Line Dr
Doctors Pass
Mooring Line Dr
Hawser Ln
Rudder Rd
Alamanda Dr
Springline Dr
Orchid Dr
Tamiami Trail N
41
High Point Cir S
Ridge St
Rosemary Ln
Rosemary Ct
Creech Rd
Rordon Ave
10th St N
12th St N
28th Ave N
N St 12
26th Ave N
Diana Ave
14th St N
SUN TERRACE
22nd Ave N
Golden Gate Pkwy
Fleischmann Blvd
Goodlette-Frank Rd
Wilderness
Google Earth
2000 ft
N

Harbour Drive from Crayton Rd to US41



2,500' of Orange Conduit
5 Pull Boxes

2700' (48) Fiber
2700' Tracer wire (#10)

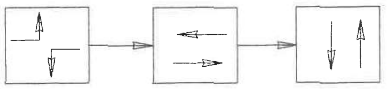
Mooring Line Dr from Crayton Rd to US41

1800' of Orange Conduit
5 Pull Boxes

2000' (48) Fiber
2000' Tracer wire (#10)

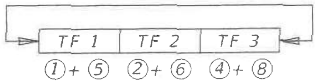
CITY CONTRACT NO.	15-022

S.O.P. 2



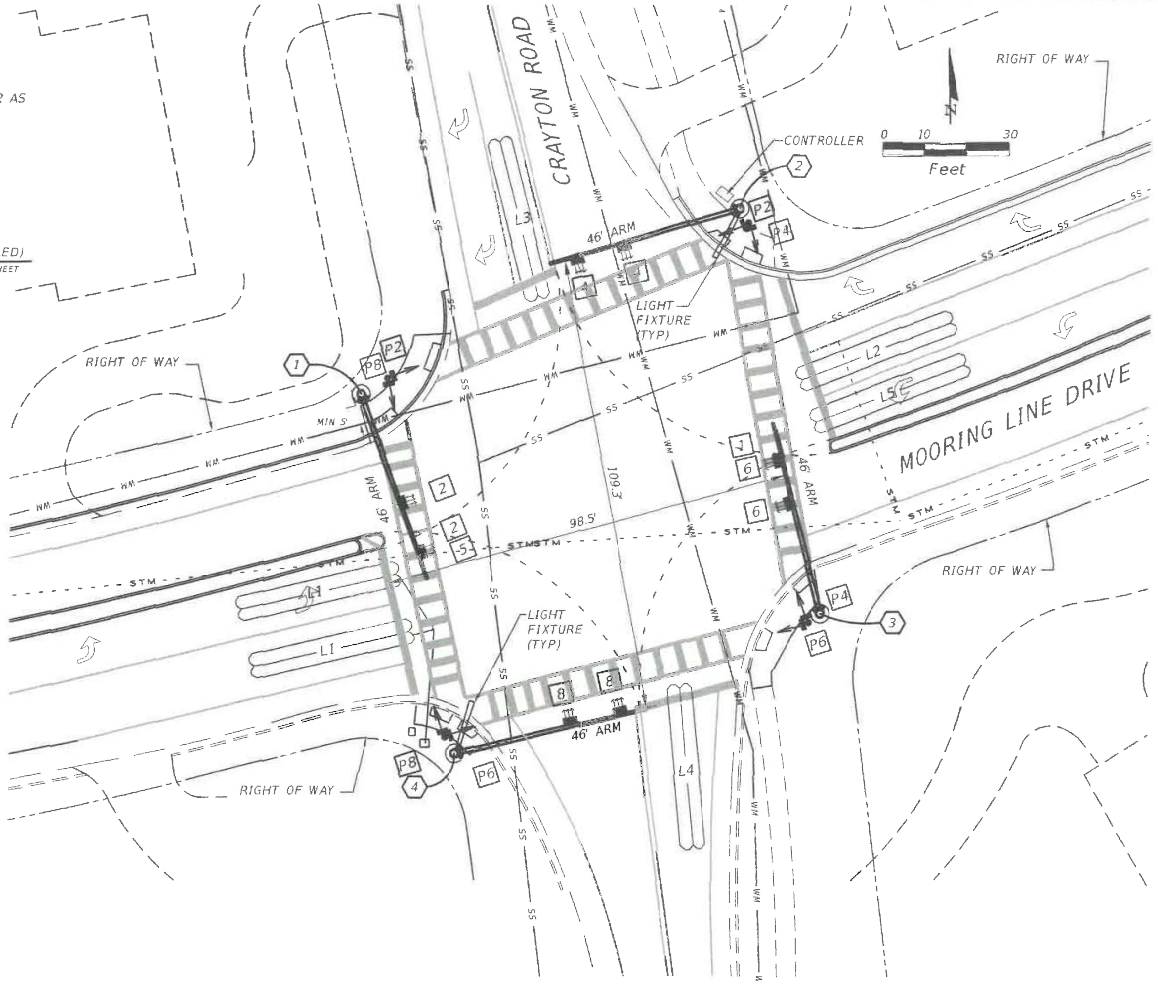
A **Mooring Line** Dr 2 AS

B **Crayton** Rd 2 AS



INTERNALLY ILLUMINATED STREET NAME (LED)
SEE MAST ARM TABULATION SHEET AND GUIDE SIGN WORKSHEET

699-1-21



2 1 AS
4 2 AS
6 1 AS
8 2 AS

3-SECT. TRAFFIC SIGNAL-1 WAY (LED)

650-1-311

6 AS

1 6 1 AS
2 5 1 AS

4-SECT. TRAFFIC SIGNAL-1 WAY (LED)

650-1 411

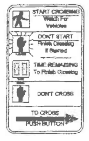
2 AS

P2 P4 1 AS
P4 P6 1 AS
P6 P8 1 AS
P8 P2 1 AS

PED. SIGNAL COUNT-DOWN 1-SECT., 2-WAY

653-192

4 AS



PED DETECTOR SIGN R10-3I

MAINTENANCE OF TRAFFIC

1) THE IMPLEMENTATION OF THE PROJECT MAINTENANCE OF TRAFFIC (MOT) PLAN SHALL BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) ROADWAY AND TRAFFIC DESIGN STANDARDS DATED JANUARY 2014. IN ADDITION, FDOT 600 SERIES INDEXES AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS SHALL BE THE GOVERNING DESIGN AND IMPLEMENTATION DOCUMENTS.
2) REFER TO FDOT INDEX NO. 600 FOR ADDITIONAL GENERAL INFORMATION. INDEX NO. 602 PROVIDES ADDITIONAL RELEVANT CRITERIA.
3) THE SIGN SPACING SHOWN IN THE FDOT INDEXES IS TYPICAL (RECOMMENDED) DISTANCES. THESE DISTANCES MAY BE INCREASED OR DECREASED BASED ON FIELD CONDITIONS, IN ORDER TO AVOID CONFLICTS OR TO IMPROVE SITE-SPECIFIC TRAFFIC CONTROLS.
4) THE WORK ZONE SPEED SHALL BE 30 MPH AND APPROPRIATELY POSTED.
5) THE MINIMUM LANE WIDTH SHALL BE 10 FEET.

PROPOSED TRAFFIC SIGNAL

GENERAL NOTES:

1) THE MAJOR STREET IS MOORING LINE DRIVE AND THE MINOR STREET IS CRAYTON ROAD.
2) ACTUATED PEDS FOR PHASE 2 (P2,P6) AND PHASE 3 (P4,P8). SIGNAL OPERATING PLAN (SOP)2
3) INITIAL AND PASSAGE TIMES SHALL RUN CONCURRENTLY.
4) BACKPLATES SHALL BE INSTALLED IN ALL DIRECTIONS.
5) PEDESTRIAN SIGNALS ARE TO BE LED INTERNATIONAL SYMBOL COUNTDOWN TYPE.
6) INITIAL CONTROLLER TIMING MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY THE COUNTY
7) POWER SERVICE TO BE COORDINATED BETWEEN FP&L AND CONTRACTOR.
8) CONTRACTORS ATTENTION IS DIRECTED TO THE EXISTENCE OF UNDERGROUND UTILITES WHICH MAY IMPACT CONSTRUCTION PRACTICES AT THIS LOCATION.
9) SIGNAL OPERATIONS SHALL BE WIRED ACCORDING TO THE COLLIER COUNTY SIGNALIZATION TECHNICAL SPECIAL PROVISIONS, DATED MAY, 2014

PRELIMINARY

NORMAN TREBILCOCK, AICP, PE #47116
TCS CERTIFICATION OF AUTHORIZATION No. 27796

REVISIONS			
DATE	DESCRIPTION	DATE	

Trebilcock planning-engineering
1205 PIPER BLVD SUITE 202 NAPLES FL 34110

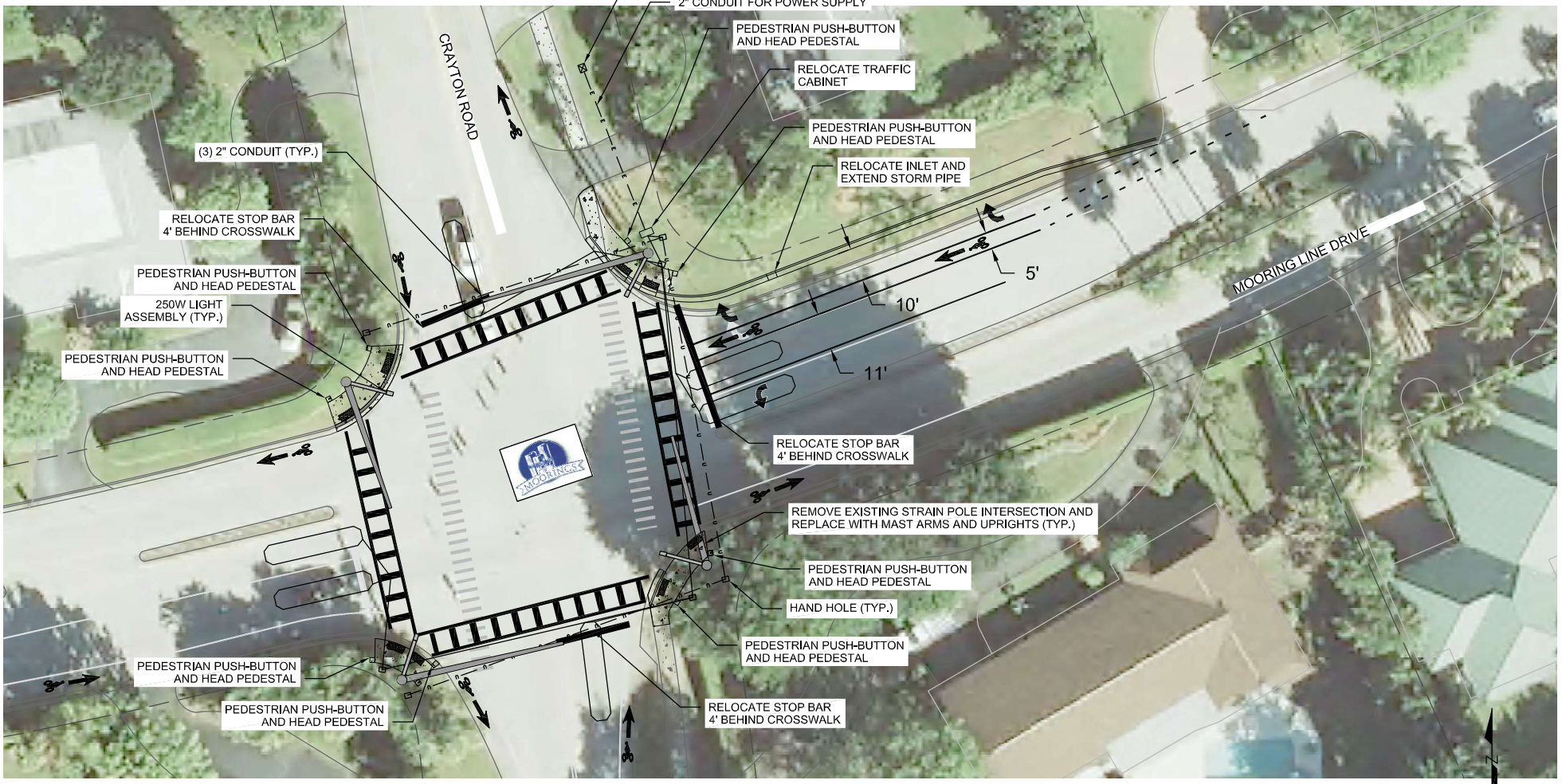
CITY OF NAPLES STREETS AND STORM WATER DEPARTMENT

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	COLLIER	NA

MOORING LINE DRIVE & CRAYTON ROAD

SHEET NO. T-4

Owner 2/26/2015 9:20:55 AM S:\Operations\Projects\Mooring Line & Crayton_City of Naples\AutoCad\Mooring Line-Crayton Signal T-4 2-25-15.dwg



0 15 30 60

CAD FILE: K:\ScottCantor\CIP\Crayton_and_MLD\DWG\Sheet 1_Plan_1.dwg PLOT DATE/TIME: 5/4/2016 - 11:24am

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS	
DATE	DESCRIPTION

DRAWN BY: S.CANTOR, 10/11/2013

City of Naples
STREETS AND STORMWATER DEPARTMENT
295 RIVERSIDE CIRCLE
NAPLES, FL 34102

MOORING LINE DRIVE AND CRAYTON ROAD INTERSECTION RECONSTRUCTION

PROPOSED CONCEPT

SHEET No. 1

Harbour Drive and Crayton Rd. Intersection

Harbour Drive and US-41 Intersection


ONE WAY

Mooring Line Drive and Crayton Rd. Intersection

Attachment B

Mooring Line Drive and US-41 Intersection


ONE-WAY
DO NOT ENTER
WRONG WAY

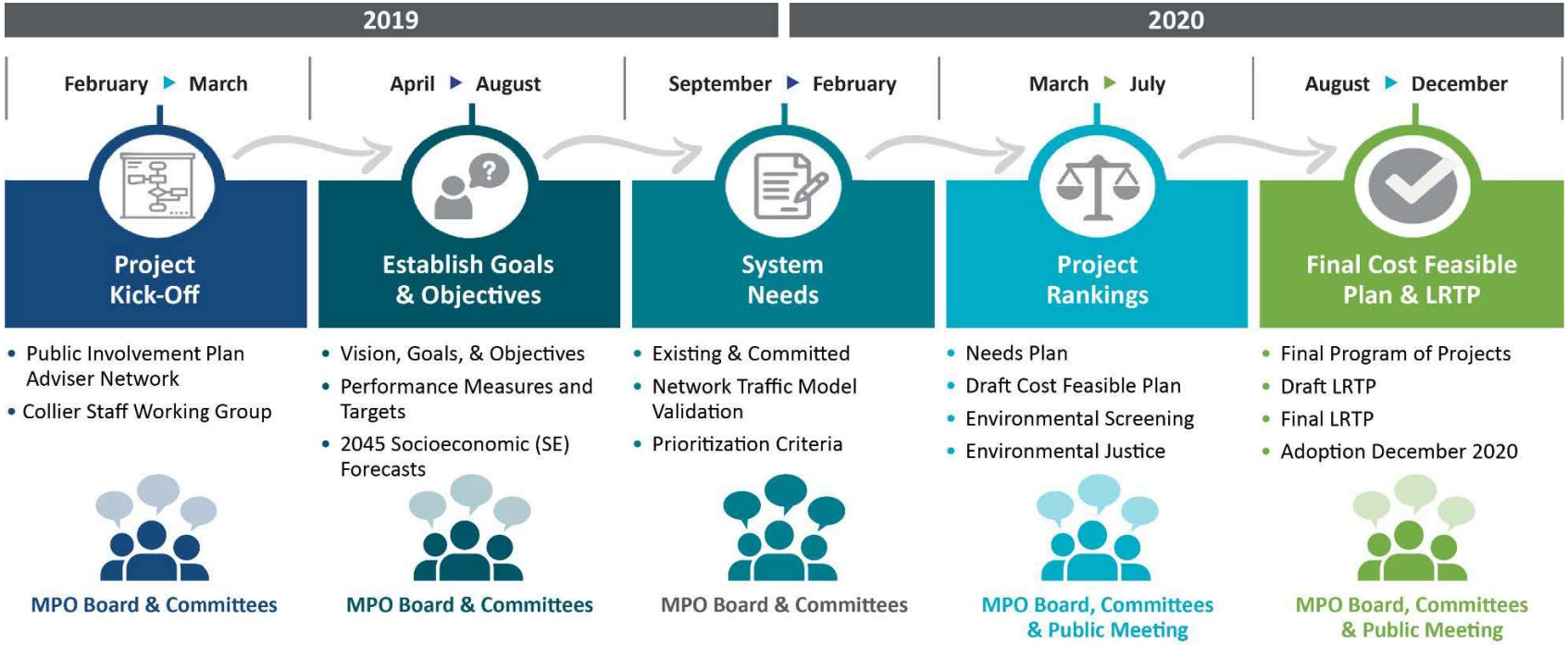
ATTACHMENT C

City of Naples

Fiber Connections and Mast Arm Intersection Improvements - Cost Estimate

DESCRIPTION		UNIT PRICE	QUANTITY	TOTAL
Orange Conduit	FT	$3.03	4300	$ 13,033.30
Pull Boxes	EA	$243.65	10	$ 2,436.50
Fiber	FT	$1.45	4700	$ 6,837.94
#10 Tracer Wire	FT	$0.65	4700	$ 3,050.30
Mobilization	LS	$22,000.00	2	$ 44,000.00
MOT	LS	$20,160.00	2	$ 40,320.00
Conduit Open Trench	LF	$25.25	400	$ 10,100.80
Conduit Directional Bore	LF	$62.42	4840	$ 302,122.48
Signal Cable	PI	$12,272.00	2	$ 24,544.00
Pull Box	EA	$1,345.20	32	$ 43,046.40
Electric Service UG	AS	$3,103.40	2	$ 6,206.80
Electric Service Wire	LF	$23.01	240	$ 5,522.40
Prestressed Concrete Pole	EA	$1,817.20	2	$ 3,634.40
Remove Concrete Strain Pole	EA	$6,136.00	4	$ 24,544.00
Aluminum Signal Poles	EA	$2,926.40	16	$ 46,822.40
Mast Arm Single Arm	EA	$94,000.00	8	$ 752,000.00
Traffic Signal 3 Section 1 Way	AS	$2,400.00	12	$ 28,800.00
Traffic Signal 5 Section 1 Way	AS	$3,600.00	4	$ 14,400.00
Pedestrian Signal LED 1 Way	AS	$1,333.40	16	$ 21,334.40
Loop Detector	AS	$500.00	14	$ 7,000.00
Loop Assembly Type F	AS	$2,000.00	14	$ 28,000.00
Vehicle Detection Pre Empt	EA	$15,000.00	2	$ 30,000.00
Vehicle Detection Optical Pre Empt	EA	$3,700.00	8	$ 29,600.00
Pedestrian Detector	EA	$425.00	16	$ 6,800.00
Installl Traffic Signal Controller	AS	$9,500.00	2	$ 19,000.00
Install UPS System	AS	$1,003.00	2	$ 2,006.00
Internally Illuminated Sign	EA	$7,721.92	8	$ 61,775.36
ADA adjustments-intersection curb ramps, etc.	EA	$70,000.00	1	$ 70,000.00
Restoration	EA	$10,000.00	2	$ 20,000.00
Inlet adjustments (intersections)	EA	$45,000.00	2	$ 90,000.00
Geotech - structural	EA	$75,000.00	2	$ 150,000.00
F-Curb	LF	$34.98	150	$ 5,247.00
Asphalt	TN	$191.23	421	$ 80,507.83
Striping - 6"	LF	$0.97	1250	$ 1,212.50
Striping - 12"	LF	$2.36	1500	$ 3,540.00
Striping - 24"	LF	$4.72	150	$ 708.00
			TOTAL	$ 1,998,152.81

Figure ES-3. Plan Process



The project evaluation criterion showed the advantages and disadvantages of the proposed projects independently as well as in relation to each other. This type of evaluation was ultimately used to develop the recommendations and prioritize transportation projects in the Needs Plan and Cost Feasible Plan. The following presents the evaluation criteria and weighting factor used for each goal.

- **Goal #1**: Ensure the Security of Transportation System for Users – 8 percent weighting factor
  - **Project Evaluation Criteria:**
    - Improves or maintains critical evacuation routes
    - Provides enhanced or potential new evacuation routes where needed
- **Goal #2**: Protect Environmental Resources – 12 percent weighting factor
  - Project Evaluation Criteria:
    - Minimize wetland encroachments by transportation projects
    - Minimize impacts to wetland flows (maintain or enhance existing flows to the extent feasible)
    - Minimize the adverse impacts on threatened and endangered species

- **Goal #3**: Improve System Continuity and Connectivity – 10 percent weighting factor
    - Project Evaluation Criteria:
    - Improves existing infrastructure deficiencies
    - Improves connectivity with new transportation links to address system gaps
- **Goal #4**: Reduce Roadway Congestion – 18 percent weighting factor
    - Project Evaluation Criteria:
    - Improves existing deficient facility or improves a new or neighboring facility intended to relieve an existing deficient facility
    - Improves intersections and roadways with poor levels of service
- **Goal #5**: Promote Freight Movement – 6 percent weighting factor
    - Project Evaluation Criteria:
    - Enhances operation of the facility identified as a major freight route
- **Goal #6**: Increase the Safety of the Transportation System for Users – 10 percent weighting factor
    - **Project Evaluation Criteria:**
    - Enhances safety of transportation system users
    - Improves facility or intersection identified as having a high crash occurrence or a fatality
    - Promotes traffic calming
    - Reduces vehicular conflicts with bicyclists, pedestrians, and other vulnerable road users
- **Goal #7**: Promote Multimodal Solutions – 10 percent weighting factor
    - Project Evaluation Criteria:
    - Provides for trail improvements that implement the Bicycle and Pedestrian Master Plan
    - Provides multimodal improvement near affordable housing, centers of employment, multi-family housing, health care, educational, recreational, or cultural centers
    - Provides multimodal improvements for Environmental Justice communities and underserved neighborhoods, and connects these neighborhoods to centers of employment and important destinations for transit-dependent households
    - Improves transit (frequency and reliability) within existing or future transit service areas or within a community redevelopment area (CRA); improves access to park-and-ride facilities; provides for BRT
    - Improves bicycle or pedestrian access to transit
    - Improves safety and access for people of all ages and abilities; improves safety for people walking, biking, and using mobility devices

- **Goal #8**: Promote the Integrated Planning of Transportation and Land Use – 10 percent weighting factor
  - **Project Evaluation Criteria:**
    - Improves access to regional travel (for example, interstates, airports, ports, and Strategic Intermodal System [SIS] facilities)
    - Improves access to tourist destinations
    - Supports targeted redevelopments or CRAs (multimodal or vehicle improvements)
    - Identified in partner agency (city, transit, county, MPO, etc.) plans as a priority
- **Goal #9**: Promote Sustainability in the Planning of Transportation and Land Use – 8 percent weighting factor
  - **Project Evaluation Criteria:**
    - Benefits low-income areas and improves sustainability through increased housing choices and reduced automobile dependency
- **Goal #10**: Consider Climate Change Vulnerability and Risk in Transportation Decision-Making – 4 percent weighting factor
  - **Project Evaluation Criteria:**
    - Promotes transportation infrastructure resiliency in the face of climate change and sea level rise
- **Goal #11**: Consider Connected and Autonomous Vehicles (CAV) Technology in Future – 4 percent weighting factor
  - **Project Evaluation Criteria:**
    - Uses technological improvements (for example, Intelligent Transportation System (ITS), Transit Signal Priority, etc.)

The federal government's Fixing America's Surface Transportation Act includes several planning factors required for long-range transportation planning. The LRTP goals and objectives incorporate the federal planning factors required for all MPOs to address through planning. **Table ES-1** illustrates which 2045 LRTP goals meet the federal planning factor requirements.

Table ES-1. LRTP Goals and Federal Planning Factors

Federal Planning Factors	Goal 1 Ensure the Security of the Transportation System for Users	Goal 2: Protect Environmental Resources	Goal 3: Improve System Continuity and Connectivity	Goal 4: Reduce Roadway Congestion	Goal 5: Promote Freight Movement	Goal 6: Increase the Safety of the Transportation System for Users	Goal 7: Promote Multimodal Solutions	Goal 8: Promote the Integrated Planning of Transportation and Land Use	Goal 9: Promote Sustainability in the Planning of Transportation and Land Use	Goal 10: Consider Climate Change Vulnerability and Risk in Transportation Decision-Making
Safety						✓				
Security	✓									
Accessibility & Mobility			✓	✓			✓	✓		
Multimodal Connectivity			✓				✓		✓	
System Preservation										✓
Economic Vitality					✓		✓			
Environmental Quality		✓							✓	
System Efficiency				✓	✓			✓		
Resiliency & Reliability	✓			✓						✓
Transit & Tourism							✓	✓		

Goal #1: Ensure the Security of Transportation System for Users

The primary security issue for Collier County residents relates to implementation of sound emergency management plans. The primary threat to the County is extreme weather events, particularly hurricanes and wildfires. As a result, emphasis has been placed on enhancing important evacuation routes.

The total weighting factor for this goal is 8 percent.

Objectives:

- Enhance important evacuation routes
- Maintain sound transportation components of the emergency management plan for Collier County

Project Evaluation Criteria:

- Improves or maintains critical evacuation routes
- Provides enhanced or potential new evacuation routes where needed

Goal #2: Protect Environmental Resources

Collier County is fortunate to have wide-ranging environmental resources including extensive wetland resources and natural wildlife areas that greatly enhance the quality of life for residents and visitors. Protection of these resources has been highly valued in the 2045 LRTP.

The total weighting factor for this goal is 12 percent.

Objectives:

- Minimize encroachment by transportation projects on wetlands and other protected natural areas
- Minimize adverse impacts on threatened and endangered species

Project Evaluation Criteria:

- Minimize wetland encroachments by transportation projects
- Minimize impacts to wetland flows (maintain or enhance existing flows to the extent feasible)
- Minimize the adverse impacts on threatened and endangered species

Goal #10: Consider Climate Change Vulnerability and Risk in Transportation Decision-Making

A resilient transportation system is one that supports mobility, system preservation, and evacuation needs, and addresses social equity.

The total weighting factor for this goal is 4 percent.

Objectives:

- Identify key climate impacts (rising sea levels, hurricanes, etc.)
- Identify sensitive assets and thresholds for impacts
- Identify, evaluate, and adopt strategies to address identified vulnerabilities
- Screen projects during planning to avoid making investments in particularly vulnerable areas

Project Evaluation Criteria:

- Promotes transportation infrastructure resiliency in the face of climate change and sea level rise

Goal #11: Consider Connected and Autonomous Vehicles (CAV) Technology in Future

Advances in automotive infrastructure technology through connected vehicles or self-driving cars pose some of the biggest challenges to transportation planning (for example, equity among users). The potential for disruptions to transportations systems includes changes to land uses and the system network itself. However, because of the potential safety benefits, the Collier MPO is exploring ways to incorporate these technologies into the transportation network.

The total weighting factor for this goal is 4 percent.

Objectives:

- Explore options for application and implementation of CAV technologies, in light of the lack of current guidance
- Consider new guidance and developments during the LRTP process

Project Evaluation Criteria:

- Uses technological improvements (for example, ITS, Transit Signal Priority, etc.)

Goal #3: Improve System Continuity and Connectivity

Continuity and connectivity make it easier for residents and visitors to access the transportation system as directly as possible. Connectivity is a priority for all modes, and the future network provides direct routes and reduces travel time.

The total weighting factor for this goal is 10 percent.

Objectives:

- Improve continuity and capacity of existing facilities
- Promote connectivity by creating new transportation links
- Create a network of direct routes between and within areas of development

Project Evaluation Criteria:

- Improves existing infrastructure deficiencies
- Improves connectivity with new transportation links to address system gaps

Goal #4: Reduce Roadway Congestion

Congestion and accompanying delay poses a serious cost to the residents of Collier County, reducing their access to jobs, education, health care, shopping, recreation, and other activities. The 2045 LRTP emphasizes reducing congestion to help enhance the quality of life for County residents.

The total weighting factor for this goal is 18 percent.

Objectives:

- Reduce the number of deficient roadways (those with a high volume-to-capacity ratio) identified in the 2045 existing plus committed (E+C) network
- Reduce travel delay between residential areas and key destinations

Project Evaluation Criteria:

- Improves existing deficient facility or improves a new or neighboring facility intended to relieve an existing deficient facility
- Improves intersections and roadways with poor levels of service

CAPITAL IMPROVEMENT PROJECTS
STREETS & TRAFFIC - FUND 190

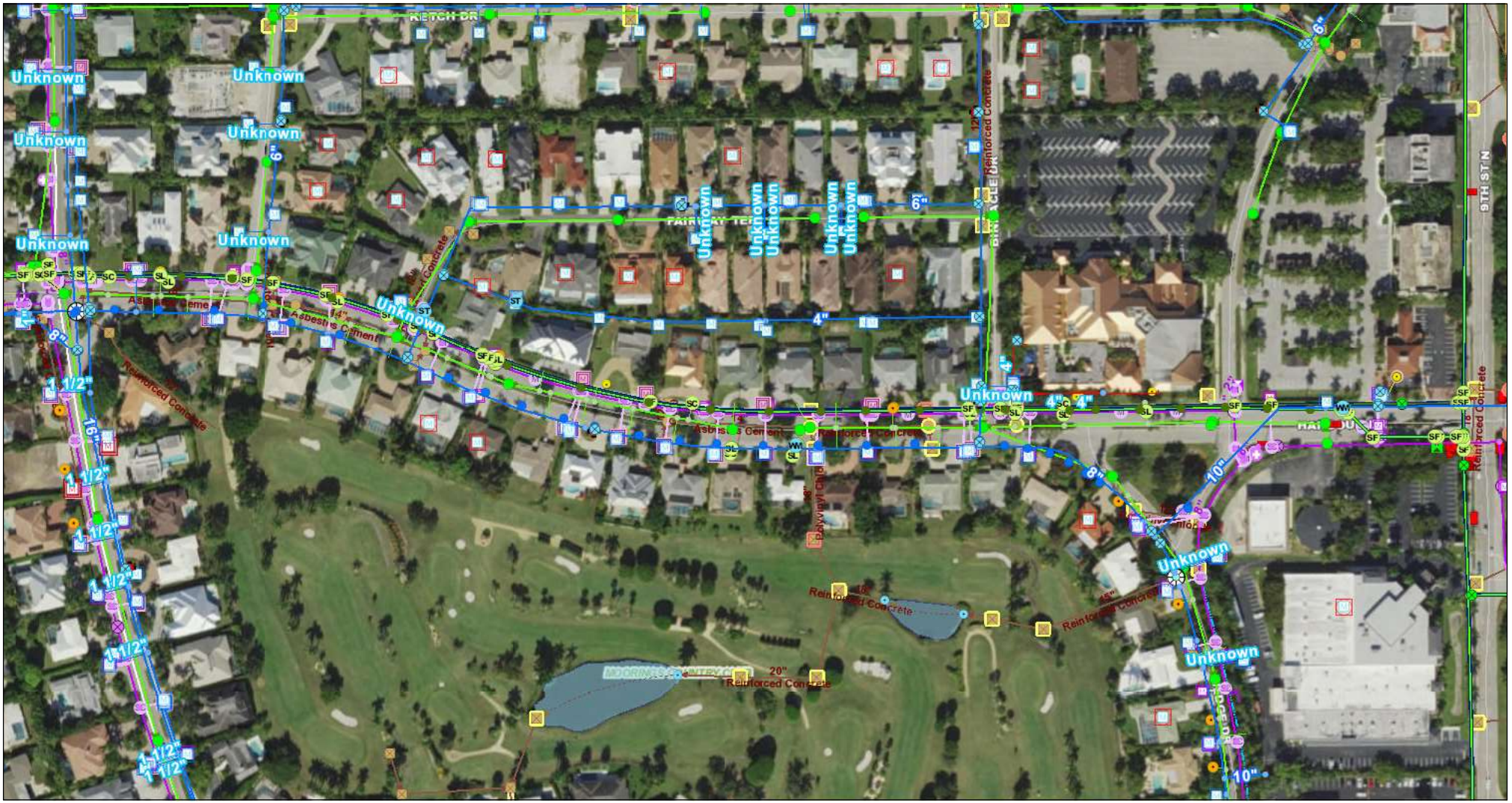
CIP ID	PROJECT DESCRIPTION	AMENDED BUDGET 2022-23	DEPT REQUEST 2023-24	2024-25	2025-26	2026-27	2027-28
	Annual Pavement Resurfacing Program*	1,000,000	750,000	750,000	750,000	750,000	750,000
	Total Programs Budgeted in the Operations Budget	**1,000,000**	**750,000**	**750,000**	**750,000**	**750,000**	**750,000**
24U29	Pedestrian & Bicycle Master Plan Projects**	175,000	150,000	150,000	150,000	150,000	150,000
24U01	Intersection/Signal System Improvements***	375,000	700,000	700,000	900,000	700,000	700,000
	CRA Improvements - Pavement Markings and Signage	125,000	0	75,000	0	0	0
	Annual Alleyway Improvement Project	0	0	250,000	250,000	250,000	250,000
	Traffic Management Center & Systems Improvements	25,000	0	0	0	0	0
	Lantern Lane Drainage & Street Resurfacing Project	80,000	0	0	0	0	0
	Total Streets and Traffic CIP Budget	**780,000**	**850,000**	**1,175,000**	**1,300,000**	**1,100,000**	**1,100,000**
	TOTAL STREETS AND TRAFFIC FUND	**1,780,000**	**1,600,000**	**1,925,000**	**2,050,000**	**1,850,000**	**1,850,000**

** Pavement resurfacing is budgeted in the operations budget "Road Resurfacing" line item, and identified on the CIP list for information only.*
*** Ped & Bike projects are prioritized and described within the 2022 Update of the Ped-Bike Master Plan.*
**** Construction of Crayton & Harbour and 9th Street S & 10th Avenue. Out year construction Crayton & Mooring Line, design of Fleischmann & 10th Street Broad & 8th Street South.*

	FDOT FUNDED PROJECTS	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
FDOT	Reimbursement for Traffic Signal Operations on US41	109,649	143,013	147,303	154,668	0	0
FDOT	Reimbursement for US41 Street Lighting	180,198	165,567	0	0	0	0
FDOT	Reimbursement for Traffic Operations Center	28,500	28,500	28,500	28,500	0	0
FDOT	Orchid Drive Pedstrian Bicycle Connection	0	0	0	0	349,407	0
FDOT	South Golf Drive Bike Lane/Sidewalk: Gulf Shore Blvd to W US41	0	1,980,749	0	0	0	0
FDOT	Bicycle Detection Systems at 4 intersections	0	67,429	0	0	0	0
FDOT	26th Avenue North Sidewalks	0	55,000	0	678,588	0	0
FDOT	**TOTAL**	**318,347**	**2,440,258**	**175,803**	**861,756**	**349,407**	**0**

City of Naples Utilities

Attachment E



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0 0.025 0.05 0.1 mi

0 0.0375 0.075 0.15 km

Water Sampling Station

Water System Valve
- Not GPS'd
- Abandoned
- GPS'd

Water Hydrant
- Not GPS'd
- GPS

Water SubSurface Positions
- Lateral Position
- Main Position

Water Locating Ball
- <all other values>
- Linestops
- Main
- Service Connection Tap

- Sleve
- Valve

Water Meter
- <all other values>
- Meter - GPS
- Meter - Not GPS'd
- Meter Box - Missing Meter Number

Water Network Structure
- Booster Station
- Storage Basin
- Water Pump
- Water Wells
- Water Fitting

Water Control Valve
- Not GPS'd

- GPS
- Water Conflict Box

Water Service Line
- <all other values>
- Commercial
- Domestic
- Fire
- Hydrant

- Industrial
- Irrigation

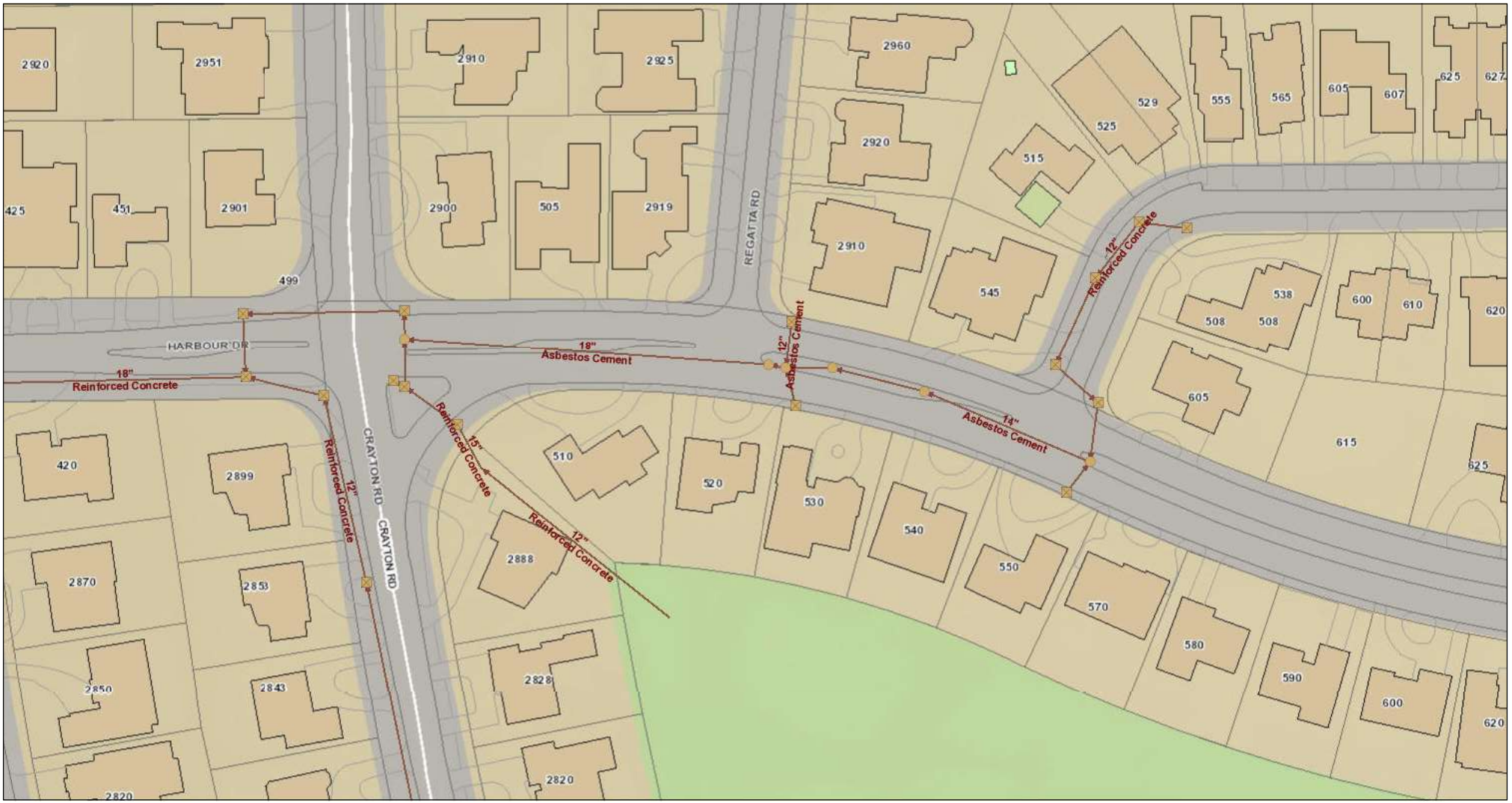
Water Pressurized Main
- Potable Water, City Water - Active
- Potable Water, Private
- Raw Water, Active, City of Naples
- Abandoned
- Potable Water, Proposed

City of Naples
Naples GIS
CCPA, Naples GIS
City of Naples

City of Naples

City of Naples Stormwater

Attachment E



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0 0.0125 0.025 0.05 mi

0 0.0175 0.035 0.07 km

City of Naples
Naples GIS

Stormwater Outfall
- Outfall
- Stormwater Weirs

Headwalls / Outlets
- Other; Overflow; Standard Outlet; Unknown

Storm Inlets
- <all other values>
- Aligned to aerial photography
- GPS sub-cm survey; GPS sub-m survey
- TrenchDrain

Storm Manholes
- <all other values>
- Aligned to aerial photography
- GPS sub-cm survey; GPS sub-m survey

Storm Clean Outs
Storm System Valves
Storm Control Valves
Storm Fittings

Storm Network Structures
- <all other values>
- Pump Station

Stormwater Pressure Mains
Storm Culverts
Swales / Streams

Stormwater Gravity Main
- Lined
- Not Lined
- Storm Virtual Drainlines

Storm Detention Areas

City of Naples Utilities

Attachment E

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0 0.025 0.05 0.1 mi

0 0.0375 0.075 0.15 km

Water Sampling Station

Water System Valve
- Not GPS'd
- Abandoned
- GPS'd

Water Hydrant
- Not GPS'd
- GPS

Water SubSurface Positions
- Lateral Position
- Main Position

Water Locating Ball
- <all other values>
- Linestops
- Main
- Service Connection Tap

Sleeve

Valve

Water Meter
- <all other values>
- Meter - GPS
- Meter - Not GPS'd
- Meter Box - Missing Meter Number

Water Network Structure
- Booster Station
- Storage Basin
- Water Pump
- Water Wells
- Water Fitting

Water Control Valve
- Not GPS'd

GPS

Water Conflict Box

Water Service Line
- <all other values>
- Commercial
- Domestic
- Fire
- Hydrant

Industrial

Irrigation

Water Pressurized Main
- Potable Water, City Water - Active
- Potable Water, Private
- Raw Water, Active, City of Naples
- Abandoned
- Potable Water, Proposed

City of Naples
Naples GIS
CCPA, Naples GIS
City of Naples

City of Naples

City of Naples Stormwater

Attachment E

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1:1,000

0 0.0125 0.025 0.05 mi

0 0.0175 0.035 0.07 km

City of Naples
Naples GIS

Stormwater Outfall
- Outfall
- Stormwater Weirs

Headwalls / Outlets
- Other; Overflow; Standard Outlet; Unknown

Storm Inlets
- <all other values>
- Aligned to aerial photography
- GPS sub-cm survey; GPS sub-m survey
- TrenchDrain

Storm Manholes
- <all other values>
- Aligned to aerial photography
- GPS sub-cm survey; GPS sub-m survey

Storm Clean Outs

Storm System Valves

Storm Control Valves

Storm Fittings

Storm Network Structures
- <all other values>
- Pump Station

Stormwater Pressure Mains

Storm Culverts

Swales / Streams

Stormwater Gravity Main
- Lined
- Not Lined
- Storm Virtual Drainlines

Storm Detention Areas

2022 CMP Congestion Management Strategy & Performance Measure Matrix

Project Name	Submitting Agency	Description	Funding Request	Congestion Management Strategy	CMP Performance Measure(s)
Fiber connections from US-41 to Mooring Line Drive & Crayton and Harbour & Crayton span-wire to mast arm intersection improvements	City of Naples	Fiber connections to intersections and upgrades from the existing span-wire assembly	$1,998,153	Demand mangement & Safety	safety, customer service, incident duration

Collier MPO Congestion Management – Project Concept Sheet 2023

(Each fillable area can accommodate multiples lines.)

A. REQUIRED PROJECT INFORMATION:

1. Name of Project: US 41 from 3rd Ave to SR 84 Intersection/Mobility Improvements PD&E
2. Name of Applicant: Alison Bickett
3. Name of Submitting Jurisdiction: City of Naples
4. If this is a multi-jurisdictional application, please list the jurisdictions involved

   Collier County, FDOT, City of Naples, are immediate stakeholders; and affects regional travel.
5. Describe the project and its purpose, including the project limits (if applicable). Attachment included?

   Project limits: US 41 from 3rd Ave to SR84 (Davis Blvd)
   Analyze cumulative effect of redevelopment projects on roadways functionality from a Complete Streets Perspective utilizing a Safe Systems approach.
6. Amount of CMC/ITS SU Box funds being requested $ 1.1 M Estimated Total Project Cost $ TBD

   If SU Box funds are not requested, what funding source would be most appropriate?
7. Are there specific technical and/or monetary local contributions for this project? If yes, please explain.

   YES ☐ NO ☑
8. Anticipated time to complete the project: 12-18 months
9. Does this project require the acquisition of Right-of-Way? YES ☐ NO ☑
10. Is this project on a congested corridor? Identify the corridor. YES ☑ NO ☐

    US 41
11. Does this project address a documented safety problem? Explain. YES ☑ NO ☐

    bicycle and pedestrian safety at intersections and on Gordon River Bridge
12. Does this project address a strategy listed on the implementation matrix? YES ☑ NO ☐
13. Does this project maintain concurrency with FDOT Regional ITS architecture? YES ☐ NO ☑
14. Does this project promote one or more multi-modal solutions by advancing recommendations from an adopted MPO study? Please identify. YES ☑ NO ☐

    Physical Roadway Capacity enhancement, Bicycle & Pedestrian, Transit, Safety

B. PROJECT SPECIFIC DESCRIPTION:

CHECK ALL STATEMENTS BELOW THAT APPLY TO THE PROJECT WITH AN EXPLANATION OF HOW IT APPLIES.

*If project is funded, you will be expected to provide data to the MPO within 2 years and 5 years of construction/ implementation for performance measures selected. (*Each fillable area can accommodate multiples lines.)*

☑ 1. Travel Demand - Describe how the project addresses one or more of the following Performance Measures:

a. Percent of roadway miles by volume to capacity (V/C) ratio

PD&E may identify ways to improve V/C ratio, or to accommodate additional traffic without V/C ratio worsening

b. Percent of vehicle miles traveled by volume to capacity (v/c) ratio

c. Number of signalized intersections connected to ATMS

PD&E will identify ways to improve the movement vehicles through signalized intersections.

☑ 2. Transit Travel – Describe how the project addresses one or more of the following performance measures:

a. Average bus route service frequency and number of routes

b. Passenger trips (annual ridership)

PD&E may identify Improvements that ultimately increase passenger trips on bus route

c. Passenger trips per revenue hour

d. Transit on time performance

PD&E may identify improvements that increase on time performance

☑ 3. Pedestrian/Bicycle Facilities - Describe how project addresses one or more of the following Performance Measures:

a. Centerline miles of bicycle lanes

PD&E may identify improvements that would enhance safety of existing lanes

b. Linear miles of connector sidewalks on arterial roadways

PD&E may identify improvements that enhance safety and comfort of pedestrians rather than add to miles.

c. Linear miles of Shared Use paths adjacent to roadways

PD&E may lead to wider sidewalks that can function as shared use paths

✓ 4. Goods Movement – Describe how project addresses one or more of the following performance measures:

a. Vehicle miles traveled (VMT) on designated truck routes with V/C greater than 1/0

PD&E may identify improvements that reduce congestion and thereby increase VMT

b. Number of crashes involving heavy vehicles/trucks

☑ 5. Safety– Describe how project addresses one or more of the following performance measures:

a. Total crashes

PD&E will evaluate current conditions and propose mitigation strategies

b. Motor vehicle severe injury crashes

c. Motor vehicle fatal crashes

d. Pedestrian and bicycle severe injury and fatal crashes

PD&E will evaluate current conditions and propose mitigation strategies

☐ 6. TDM– Describe how project addresses one or more of the following performance measures:

a. Number of people registered in the FDOT Commute Connector database that have an origin in Collier County

☐ 7. Accessibility– Describe how project addresses one or more of the following performance measures:

a. Share of regional jobs within ¼ mile of transit

b. Share of regional households within ¼ mile of transit

☐ 8. Incident Duration– Describe how project addresses one or more of the following performance measures:

a. Mean time for responders to arrive on scene after notification

b. Mean incident clearance time

c. Road Ranger stops

☐ 9. Customer Service– Describe how project addresses one or more of the following performance measures:

a. Report on nature of comments/responses and customer satisfaction

2022 CMP Congestion Management Strategy & Performance Measure Matrix

Project Name	Submitting Agency	Description	Funding Request	Congestion Management Strategy	CMP Performance Measure(s)
US41 from 3rd Ave to Sr 84 Intersection / Mobility Improvements PD&E	City of Naples	Analyze cumulative effects of redevelopment projects on US41's functionality from a Complete Streets Perpective and address Bike - Ped Safety Concerns utilizing a Safe Systems approach.	$1,118,220	Physical Roadway Capacity Enhancement	PD&E to look at ways to improve V/C ratio or to accommodate increased traffic without V/C ratio worsening
				Bicycle & Pedestrian	PD&E will identify improvements that enhance safety of bike-ped facilities; may identify improvements that lead to wider sidewalks as shared use paths
				Transit	PD&E to look at improvements that may increase passenger trips on bus route
				Safety	PD&E will identify improvements that enhance safety of bike-ped facilities

District One
Priority Project Information Packet

Please fill out this application completely. Please ensure all attachments are LEGIBLE Applications containing insufficient information will not be reviewed by the FDOT.

Name of Applying Agency: City of Naples

Project Name: US41 from 3rd Ave to SR 84 Intersection/Mobility Improvements PD&E

Project Category:

Congestion Management ☒ TRIP ☐ CIGP ☐

Transportation Alternative ☐ Transit/Modal ☐

For more information on State Grant Programs (CIGP, SCOP, SCRAP, TRIP) please click here.

Is applicant LAP certified? Yes ☒ No ☐

Is project on State Highway System? Yes ☒ No ☐
If the project is off the state system and the applicant is LAP certified the project will be programmed as a LAP project.

Is the roadway on the Federal Aid Eligible System? Yes ☐ No ☐
If yes, provide Federal Aid roadway number: Click here to enter text.
If no, give local jurisdiction: Click here to enter text.
http://www.fdot.gov/statistics/fedaid/

Detailed Project Limits/Location:
Describe begin and end points of project, EX., from ABC Rd. to XYZ Ave. Limits **run south to north or west to east.** Include jurisdiction (city/county), project length, attach a labeled project, map.
US 41 from 3rd Ave S to SR 84 (Davis Blvd)

Discuss how this project is consistent with the MPO/TPO Long Range Transportation Plan?
Page Number (attach page from LRTP): p6-17 SU Box attached

Discuss the project in the local jurisdiction's Capital Improvement Plan?
(Attach page from CIP): Click here to enter text.

Project Description

Phase(s) requested:

Planning Study ☐ PD&E ☒ PE ☐ ROW ☐ CST ☐ CEI ☐

Project cost estimates by phase (Please include detailed cost estimate and documentation in back-up information):

Phase (PD&E, ROW, PE, CST)	Estimated Total Cost	Funds Requested	Matching Local Funds	Local Fund Source	Type of Match (Cash, in-kind)
PD&E	**1188222**	**1188222**	**0**	**0**	**n/a**
[Phase]	**[Number]**	**[Number]**	**[Number]**	**[Fund Source]**	**[Match Type]**
[Phase]	**[Number]**	**[Number]**	**[Number]**	**[Fund Source]**	**[Match Type]**
[Phase]	**[Number]**	**[Number]**	**[Number]**	**[Fund Source]**	**[Match Type]**

Total Project Cost: $ 1,188,222

Project Details: Clearly describe the existing conditions and the proposed project and desired improvements in detail. Please provide studies, documentation, etc., completed to-date to support or justify the proposed improvements. Include labeled photos and maps. (Add additional pages if needed):

Not applicable.

Constructability Review

For items 2-9 provide labeled and dated photos (add additional pages if needed)

1. Discuss other projects (ex. drainage, utility, etc.) programmed (local, state or federal) within the limits of this project? Click here to enter text.

2. Does the applicant have an adopted ADA transition plan? Yes ☒ No ☐

   Identify areas within the project limits that will require ADA retrofit. (Include GIS coordinates for stops and labeled photos and/or map.)
   Click here to enter text.

3. Is there a rail crossing along the project?
   Yes ☐ No ☒
   What is the Rail MP?
   Enter MP

4. Are there any transit stops/shelters/amenities within the project limits?
   Yes ☒ No ☐

   How many? Click here to enter text.

   Stop ID number: Click here to enter text.

5. Is the project within 10-miles of an airport? Yes ☐ No ☐

6. Coordinate with local transit and discuss improvements needed or requested for bus stops?
   (add additional pages if needed):
   Click here to enter text.

7. Are turn lanes being added? Yes ☐ No ☐

   If yes, provide traffic counts, length, and location of involved turn lanes.
   Click here to enter text.

8. Drainage structures:
   - Number of culverts or pipes currently in place: Click here to enter text.
   - Discuss lengths and locations of each culvert along the roadway: Click here to enter text.
   - Discuss the disposition of each culvert and inlet. Which culverts are "to remain" and which are to be replaced, upgraded, or extended? Click here to enter text.
   - Discuss drainage ditches to be filled in?
     (Discuss limits and quantify fill in cubic yards) Click here to enter text.
   - Describe the proposed conveyances system (add additional pages if needed.)
     Click here to enter text.
   - Are there any existing permitted stormwater management facilities/ponds within the project limits? Yes ☐ No ☐
   - If yes, provide the location and permit number (add additional pages if needed)
     Click here to enter text.
   - Discuss proposed stormwater management permits needed for the improvements. Click here to enter text.
   - List specific utilities within project limits and describe any potential conflicts (add additional pages if needed): Click here to enter text.
   - Discuss Bridges within project limits? Click here to enter text.
   - Can bridges accommodate proposed improvements? Yes ☐ No ☐
     If no, what bridge improvements are proposed? (Offset and dimensions of the improvements, add additional pages if needed):
     Click here to enter text.

9. Has Right-of-way (ROW), easements, or ROW activity already been performed/acquired for the proposed improvements? If yes, please provide documentation

   Yes ☐ No ☐

   If ROW or Easements are needed detail expected area of need (acreage needed, ownership status):
   Click here to enter text.

10. Discuss required permits (ERP, Drainage, Driveway, Right of Way, etc.): Click here to enter text.

    If none are needed, state the qualified exemption:
    Click here to enter text.

11. Are there any wetlands within the project limits? Yes ☐ No ☐

    If yes, list the type of wetlands, estimated acreage and if mitigation will be required. Please note whether the project is within the geographic service area of any approved mitigation banks. Provide any additional information:
    Click here to enter text.

12. Are there any federal or state listed/protected species within the project limits?
    Yes ☐ No ☐

    If yes, list the species and what, if any mitigation or coordination will be necessary: Click here to enter text.

    If yes, discuss critical habitat within the project limits: Click here to enter text.

13. Discuss whether any prior reviews or surveys have been completed for historical and archaeological resources (include year, project, results)
    Click here to enter text.

14. Are any Recreational, historical properties or resources covered under section 4(f) property within the project limits? Yes ☐ No ☐
    (Provide details) Click here to enter text.

15. Discuss whether any prior reviews or surveys have been completed for sites/facilities which may have potential contamination involvement with the proposed improvements. This should include a discussion of locations which may directly impact the project location, or be which may be exacerbated by the construction of the proposed improvements. Click here to enter text.

16. Are lighting improvements requested as part of this project? Yes ☐ No ☐
    Please provide a lighting justification report for the proposed lighting.
    Click here to enter text.

17. Is a mid-block crossing proposed as part of the project? Yes ☐ No ☐
    If yes, please provide the justification for mid-block crossing.
    Click here to enter text.

Required Attachments

A. Detailed Project Scope with Project Location Map with sufficient level of detail (Please include typical section of proposed improvements)
B. Project Photos – dated and labeled (this is important!)
C. Detailed Cost Estimates including Pay Items
D. LRTP and Local CIP page
E. Survey/As-builts/ROW documentation/Utility/Drainage information
F. Detailed breakdown of ROW costs included in estimate (if ROW is needed/included in request or estimate)

Applicant Contact Information

Agency Name:
Mailing Address: City of Naples, Dept Streets & Stormwater 295 Riverside Cl Naples, FL 34102
Contact Name and Title: Alison Bickett, PE
Email: abickett@naplesgov.com **Phone: 239-213-5014**

Signature: _Alison Bickett_ Date: 9-15-23
Your signature indicates that the information included with this application is accurate.

Maintaining Agency:
Contact Name and Title: FDOT, Victoria Peters, Community Liaison
Email: victoria.peters@dot.state.fl.us **Phone: 239-225-1974**

Signature: _____ Date: _____
Your signature serves as a commitment from your agency to maintain the facility requested.

MPO/TPO:
Contact Name and Title: Anne McLaughlin, MPO Director
Email: anne.mclaughlin@colliercountyfl.gov **Phone: 239-252-5884**

Signature: _____ Date: _____
Your signature confirms the request project is consistent with all MPO/TPO plans and documents, is eligible, and indicates MPO/TPO support for the project.

From: Peters, Victoria
To: Anne McLaughlin
Subject: US41 PD&E -some info
Date: Friday, August 25, 2023 4:48:09 PM
Attachments: image001.png

EXTERNAL EMAIL: This email is from an external source. Confirm this is a trusted sender and use extreme caution when opening attachments or clicking links.

Hi Anne! Thank you so much for taking time to catch up with me today. Below is some information regarding the PD&E.

Description: US 41 FROM 3RD AVE TO SR 84 INTERSECTION/MOBILITY IMPROVEMENTS PD&E
Fiscal Year: FY27
Work Mix: PD&E
Funds: SU
Ant Cost: $1,188,222.

Project limits: US41, from 3rd Ave to SR84/Davis Boulevard
FDOT Managed PD&E

Thank you,

Victoria

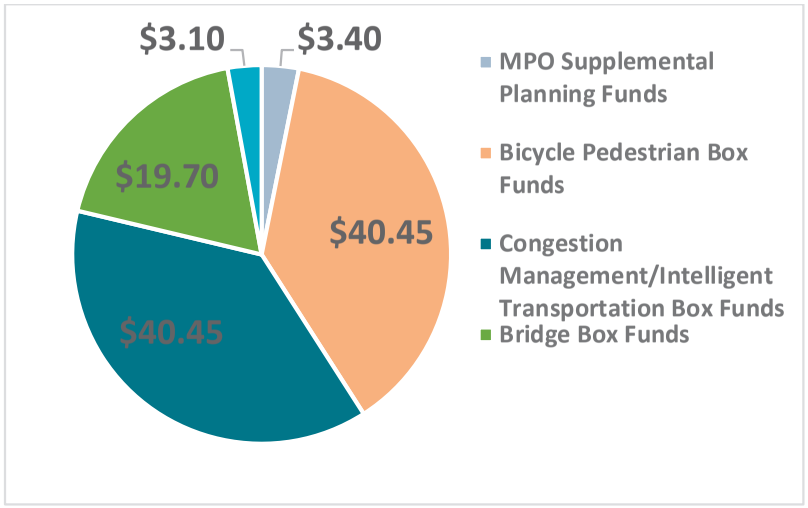
Victoria Peters, JD
Florida Department of Transportation; D1
(Cell) (863) 272-2368

Project Location: US41 from 3rd Ave S to SR 84 (Davis Blvd) Intersection/Mobility Improvements PD&E

Table 6-8. SU Box Funds by Planning Year and Project Phase

Allocation Type	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	
MPO Supplemental Planning Funds	$0.70			$0.80			$1.90			$3.40
Bicycle Pedestrian Box Funds			$10.17			$10.13			$20.15	$40.45
Congestion Management/Intelligent Transportation Box Funds			$10.17			$10.13			$20.15	$40.45
Bridge Box Funds			$4.96			$4.94			$9.80	$19.70
Safety			$0.80			$0.80			$1.50	$3.10

Figure 6-9. SU Fund Allocation Through 2045



Collier MPO Congestion Management - Project Concept Sheet

A. REQUIRED PROJECT INFORMATION:

1. Name of Project **ATMS and Controller Update**
2. Name of Applicant **Trinity Scott**
3. Name of Submitting Jurisdiction **Collier County**
4. If this is a multi-jurisdictional application, please list the jurisdictions involved

   _____
5. Describe the project and its purpose, including the project limits (if applicable). Attachment? [X]

   The ATMS and traffic signal controllers provide Traffic Management Center (TMC) staff real-time data on the functioning of Intelligent Transportation Systems (ITS) at signalized intersections throughout the County's roadways. The systems regulates and monitors vehicle detection, pedestrian movement, traffic responsive operations, time of day plans, preemption/priority signal treatment for Fire/Rescue, EMS, and Bus traffic, provides Signal Phase and Timing (SPaT) data to vehicle equipped with CV2X (Connected Vehicles to Infrastructure) capabilities. Collier County Traffic Operations continues to adopt ITS innovations on County roadways, to mitigate congestion and enhance safety. (See Map and List Attachment A)
6. Amount of CMC/ITS SU Box funds being requested **$1,622,000** Estimated Total Project Cost **$1,622,000** If SU Box funds are not requested, what funding source would be most appropriate?

   _____
7. Are there specific technical and/or monetary local contributions for this project? If yes, please explain.

   YES [ ] NO [√]
8. Anticipated time to complete the project ***24 months***
9. Does this project require the acquisition of Right-of-Way? YES [ ] NO [√]
10. Is this project on a congested corridor? Identify the corridor. YES [√] NO [ ]

    All congested corridors are included within the list of projects, see attached list of corridors.
11. Does this project address a documented safety problem? Explain. YES [ ] NO [√]

12. Does this project address a strategy listed on the implementation matrix? YES [√] NO [ ]

13. Does this project maintain concurrency with FDOT Regional ITS architecture? YES [√] NO [ ]

14. Does this project promote one or more multi-modal solutions by advancing recommendations from an adopted MPO study? Please identify. YES [ ] NO [√]

B. PROJECT SPECIFIC DESCRIPTION:

CHECK ALL STATEMENTS BELOW THAT APPLY TO THE PROJECT WITH EXPLANATION OF HOW IT APPLIES. (If project is funded, you will be expected to provide data to the MPO with 2 years and 5 years of construction/implementation for performance measures selected.)

[ ] 1. Travel Demand - Describe how the project addresses one or more of the following Performance Measures:

   a. Percent of roadway miles by volume to capacity (V/C) ratio
   b. Percent of vehicle miles traveled by volume to capacity (v/c) ratio
   c. Number of signalized intersections connected to ATMS

[ ] 2. Transit Travel – Describe how the project addresses one or more of the following performance measures:

   a. Average bus route service frequency and number of routes
   b. Passenger trips (annual ridership)
   c. Passenger trips per revenue hour
   d. Transit on time performance

[ ] 3. Pedestrian/Bicycle Facilities – Describe how project addresses one or more of the following Performance Measures:

   a. Centerline miles of bicycle lanes
   b. Linear miles of connector sidewalks on arterial roadways
   c. Linear miles of Shared Use paths adjacent to roadways

☐ 4. Goods Movement – Describe how project addresses one or more of the following performance measures:

a. Vehicle miles traveled (VMT) on designated truck routes with V/C greater than 1/0
b. Number of crashes involving heavy vehicles/trucks

☐ 5. Safety– Describe how project addresses one or more of the following performance measures:

a. Total crashes
b. Motor vehicle severe injury crashes
c. Motor vehicle fatal crashes
d. Pedestrian and bicycle severe injury and fatal crashes

☐ 6. TDM– Describe how project addresses one or more of the following performance measures:

a. Number of people registered in the FDOT Commute Connector database that have an origin in Collier County

---

☐ 7. Accessibility– Describe how project addresses one or more of the following performance measures:

a. Share of regional jobs within ¼ mile of transit
b. Share of regional households within ¼ mile of transit

☐ 8. Incident Duration– Describe how project addresses one or more of the following performance measures:

a. Mean time for responders to arrive on scene after notification
b. Mean incident clearance time
c. Road Ranger stops

☑ 9. Customer Service– Describe how project addresses one or more of the following performance measures:

a. Report on nature of comments/responses and customer satisfaction

This project will improve customer service and driver satisfaction in Collier County, by improving the current traffic signal operations and improving service and communications with the field devices.

2020 CMP IMPLEMENTATION MATRIX

2020 TSP Update	Tiered Congestion Hot Spots & Key Intersections (referenced in 2020 TSP BASELINE CONDITION REPORT)
Immokalee Rd from Livingston Rd to I-75*	Tier 1 Congestion Hot Spot & Critical Intersection
Immokalee Rd from Logan Rd to CR 951 (Collier Blvd)*	Tier 1 Congestion Hot Spot
CR 951 (Collier Blvd) from Vanderbilt Beach Rd to Immokalee Rd	Tier 1 Congestion Hot Spot
CR-862 (Vanderbilt Beach Rd) from Airport-Pulling Rd to Livingston Rd	Tier 1 Congestion Hot Spot & Critical Intersection
Pine Ridge from Goodlette Frank Rd to Airport-Pulling Rd	Tier 1 Congestion Hot Spot
Golden Gate Parkway from Santa Barbara Blvd to CR 951 (Collier Blvd)	Tier 1 Congestion Hot Spot
Immokalee Rd from I-75 to Logan Rd*	Tier 2 Congestion Hot Spot
Immokalee Rd from Goodlette Frank Rd to Livingston Rd*	Tier 2 Congestion Hot Spot
US 41 from Vanderbilt Beach Rd to Immokalee Rd	Tier 2 Congestion Hot Spot & Critical Intersection
US 41 from Immokalee Rd to Old US 41	Tier 2 Congestion Hot Spot
CR-862 (Vanderbilt Beach Rd) from Vanderbilt Dr to US 41	Tier 2 Congestion Hot Spot
Airport-Pulling Rd from Pine Ridge Rd to Orange Blossom Dr	Tier 2 Congestion Hot Spot
Pine Ridge Rd from Livingston Rd to I-75**	Tier 2 Congestion Hot Spot
Golden Gate Pkwy from Livingston Rd to I-75	Tier 2 Congestion Hot Spot & Critical Intersection
Davis Blvd from US 41 to Airport-Pulling Rd	Tier 2 Congestion Hot Spot
Airport-Pulling Rd from Golden Gate Pkwy to Radio Rd	Tier 3 Congestion Hot Spot & Critical Intersection
Santa Barbara Blvd/Logan Blvd at Green Blvd	Critical Intersection

District One
Priority Project Information Packet

Please fill out this application completely. Applications containing insufficient information will not be reviewed by the FDOT

Name of Applying Agency: Collier County

Project Name: ATMS and Signal Controller

Project Category:

Congestion Management ☒ TRIP ☐ CIGP ☐

Transportation Alternative ☐ Transit/Modal ☐

Is applicant LAP Certified? Yes ☒ No ☐

Is project on State Highway System? Yes ☒ No ☐
If the project is off the state system and the applicant is LAP certified the project will be programmed as a LAP project.

Is the roadway on the Federal Aid Eligible System? Yes ☒ No ☐
If no, give local jurisdiction: Click here to enter text.

Detailed Project Limits/Location:
Describe begin and end points of project, EX., from ABC Rd. to XYZ Ave. Limits run south to north or west to east. Include jurisdiction (city/county), project length, attach a labeled project map.

This project is for the purchase of traffic signal controllers, to be installed by County staff at current and future signalized intersections, in Collier County. See Attachment A.

Discuss how this project is consistent with the MPO/TPO Long Range Transportation Plan?
Page Number (attach page from LRTP):

This project is consistent with the MPO/TPO LRTP for it addresses the enhancement of ITS (Intelligent Transportation Systems) in the Traffic Management Center and at all County signalized intersections, as well as the efficient management of congestion on County roadways. See Attachment D.

Discuss the project in the local jurisdiction's Capital Improvement Plan?
(Attach page from CIP):

The funding requested is for 2030, but Collier's Capital Improvement Program (CIP) only goes out 5 years.

Project Description

Phase(s) requested:

Planning Study ☐ PD&E ☐ PE☐ ROW ☐ CST ☒ CEI ☐

Project cost estimates by phase (Please include detailed cost estimate and documentation in back-up information): ***This project is for the purchase of equipment***

Phase (PD&E, ROW, PE, CST)	Estimated Total Cost	Funds Requested	Matching Local Funds	Local Fund Source	Type of Match (Cash, in-kind)
[Phase 98]	**$[1,622,000.00]**	**$[1,622,000.00]**	**$[0.00]**	**[N/A]**	**[N/A]**
[Phase]	**[Number]**	**[Number]**	**[Number]**	**[Fund Source]**	**[Match Type]**
[Phase]	**[Number]**	**[Number]**	**[Number]**	**[Fund Source]**	**[Match Type]**
[Phase]	**[Number]**	**[Number]**	**[Number]**	**[Fund Source]**	**[Match Type]**

Total Project Cost: $ [1,622,000.00]

Project Details: Clearly describe the existing conditions and the proposed project and desired improvements in detail. Please provide studies, documentation, etc., completed to-date to support or justify the proposed improvements. Include labeled photos and maps. (Add additional pages if needed): ***The ATMS and traffic signal controllers provide Traffic Management Center (TMC) staff real-time data on the functioning of Intelligent Transportation Systems (ITS) at signalized intersections throughout the County's roadways. The systems regulates and monitors vehicle detection, pedestrian movement, traffic responsive operations, time of day plans, preemption/priority signal treatment for Fire/Rescue, EMS, and Bus traffic, provides Signal Phase and Timing (SPaT) data to vehicle equipped with CV2X (Connected Vehicles to Infrastructure) capabilities. Collier County Traffic Operations continues to adopt ITS innovations on County roadways, to mitigate congestion and enhance safety.***

Constructability Review

For items 2-9 provide labeled and dated photos (add additional pages if needed)

1. Discus other projects (ex. drainage, utility, etc.) programmed (local, state or federal) within the limits of this project? ***Not Applicable. This ITS project entails the purchase of traffic signal controllers and installation by staff.***

2. Does the applicant have an adopted ADA transition plan? Yes ☐ No ☒
   Identify areas within the project limits that will require ADA retrofit. (Include GIS coordinates for stops and labeled photos and/or map.)
   Click here to enter text.

3. Is there a rail crossing along the project?
   Yes ☐ No ☒
   What is the Rail MP?
   Enter MP

4. Are there any transit stops/shelters/amenities within the project limits?
   Yes ☐ No ☒
   How many? ***Not Applicable. This ITS project entails the purchase of traffic signal controllers and installation by staff.***
   Stop ID number:

5. Is the project within 5-miles of an airport? Yes ☒ No ☐

6. Coordinate with local transit and discuss improvements needed or requested for bus stops?
   (add additional pages if needed):
   This is not applicable, for the project entails the purchase of traffic signal controllers, to be installed by County staff, in our traffic signal cabinets. (See Attachment B).

7. Are turn lanes being added? Yes ☐ No ☒

   If yes, provide traffic counts, length, and location of involved turn lanes.

   Click here to enter text.

8. Drainage structures: ***Item 8 in its entirety is not applicable, for the project entails the purchase of traffic signal controllers, to be installed by County staff, in our traffic signal cabinets. (See Attachment B).***

   - Number of culverts or pipes currently in place: Click here to enter text.
   - Discuss lengths and locations of each culvert along the roadway: Click here to enter text.
   - Discuss the disposition of each culvert and inlet. Which culverts are "to remain" and which are to be replaced, upgraded, or extended? Click here to enter text.
   - Discuss drainage ditches to be filled in?
     (Discuss limits and quantify fill in cubic yards) Click here to enter text.
   - Describe the proposed conveyances system (add additional pages if needed.)
     Click here to enter text.
   - Are there any existing permitted stormwater management facilities/ponds within the project limits? Yes ☐ No ☒
   - If yes, provide the location and permit number (add additional pages if needed)
     Click here to enter text.
   - Discuss proposed stormwater management permits needed for the improvements. Click here to enter text.
   - List specific utilities within project limits and describe any potential conflicts (add additional pages if needed): Click here to enter text.
   - Discuss Bridges within project limits? Click here to enter text.
   - Can bridges accommodate proposed improvements? Yes ☐ No ☒

If no, what bridge improvements are proposed? (Offset and dimensions of the improvements, add additional pages if needed):
Not Applicable. This ITS project entails the purchase of traffic signal controllers and installation by staff.

9. Has Right-of-way (ROW), easements, or ROW activity already been performed/ acquired for the proposed improvements?
   Yes ☐ No ☒
   If ROW or Easements are needed detail expected area of need (acreage needed, ownership status): ***Not Applicable. This ITS project entails the purchase of traffic signal controllers and installation by staff.***
10. Discuss required permits (ERP, Drainage, Driveway, Right of Way, etc.):
    If none are needed, state the qualified exemption:
    Not Applicable. This ITS project entails the purchase of traffic signal controllers and installation by staff.

11. Are there any wetlands within the project limits? Yes ☐ No ☒
    If yes, list the type of wetlands, estimated acreage and if mitigation will be required. Please note whether the project is within the geographic service area of any approved mitigation banks. Provide any additional information:
    Click here to enter text.

12. Are there any federal or state listed/protected species within the project limits?Yes ☐ No ☒
    If yes, list the species and what, if any mitigation or coordination will be necessary:
    Click here to enter text.
    If yes, discuss critical habitat within the project limits: Click here to enter text.

13. Discuss whether any prior reviews or surveys have been completed for historical and archaeological resources (include year, project, results)
    Not Applicable. This ITS project entails the purchase of traffic signal controllers and installation by staff.

14. Are any Recreational, historical properties or resources covered under section 4(f) property within the project limits? Yes ☐ No ☒
    (Provide details) Click here to enter text.

15. Discuss whether any prior reviews or surveys have been completed for sites/facilities which may have potential contamination involvement with the proposed improvements. This should include a discussion of locations which may directly impact the project location, or be which may be exacerbated by the construction of the proposed improvements. ***Not Applicable***

16. Are lighting improvements requested as part of this project? Yes ☐ No ☒
    Please provide a lighting justification report for the proposed lighting.
    Click here to enter text.

17. Is a mid-block crossing proposed as part of the project? Yes ☐ No ☒
    If yes, please provide the justification for mid-block crossing.
    Click here to enter text.

Required Attachments

A. Detailed Project Scope with Project Location Map at sufficient level of detail (Please include typical section of proposed improvements) - ***The project is for the purchase of new traffic signal controllers for all signalized intersections maintained by Collier County, and replace our current controllers which will have reached End-of-Life (EOL), See Attachment A - List of Signalized Intersections and Project Location Map.***

B. Project Photos – dated and labeled -
   The ATMS and Controllers Update project consists of a purchase of equipment and installation done by County Staff at all County maintained signalized intersections, See Attachment B -Traffic Signal Cabinet and Controller images.

C. Detailed Cost Estimates including Pay Items - ***See Attachment C.***

D. LRTP and Local CIP page - ***See Attachment D Pg 6-11, 6-12, 6-15, pg 4-1, 4-2. The funding is requested for 2030 but Collier's Capital Improvement Program only goes out 5 years.***

E. Survey/As-builts/ROW documentation/Utility/Drainage information - ***Not applicable for this will be a purchase of ITS equipment.***

F. Detailed breakdown of ROW costs included in estimate (if ROW is needed/included in request or estimate) - ***Not applicable for this will be a purchase of ITS equipment.***

Applicant Contact Information

Agency Name: Collier County
Mailing Address: 2885 S Horseshoe Dr, Naples, FL 34104
Contact Name and Title: Trinity Scott, Department Head
Email: trinity.scott@colliercountyfl.gov **Phone:** (239) 252-5873

Signature: ScottTrinity Digitally signed by ScottTrinity Date: 2023.09.29 13:48:48 -04'00' **Date:** _____

Your signature indicates that the information included with this application is accurate.

Maintaining Agency: Collier County
Contact Name and Title: Trinity Scott, Department Head
Email: trinity.scott@colliercountyfl.gov **Phone:** (239) 252-5873

Signature: ScottTrinity Digitally signed by ScottTrinity Date: 2023.09.29 13:49:02 -04'00' **Date:** _____

Your signature serves as a commitment from your agency to maintain the facility requested.

MPO/TPO:
Contact Name and Title: Anne McLaughlin
Email: Anne.McLaughlin@colliercountyfl.gov **Phone:** 239-252-5884

Signature: _____ **Date:** _____

Your signature confirms the request project is consistent with all MPO/TPO plans and documents, is eligible, and indicates MPO/TPO support for the project.

Attachment A

COLLIER COUNTY TRAFFIC OPERATIONS
TRAFFIC MANAGEMENT CENTER (TMC)
ADVANCED TRAFFIC MANAGEMENT SYSTEM (ATMS) AND CONTROLLERS
PROJECT SCOPE

PROJECT INFORMATION

A. Introduction

The Collier County "Traffic Management Center" (TMC), has the responsibility to safely, and efficiently manage the flow of vehicle, pedestrian, bicycle and any other form of future multi-modal traffic throughout Collier County. An important tool used by TMC staff is the ATMS and signal controller systems, which run all signalized intersections. Every seven to ten years, this system needs to be replaced, to accommodate new innovations in the field and ensure the County stays current with our long-range plans, towards a smart County.

B. Background

The Traffic Management Center (TMC) is the command center for all Collier County Intelligent Transportation System (ITS) operations. TMC staff manage traffic operations, disseminate traveler information, and provide on-going incident management services to the Florida Department of Transportation (FDOT), other Local Agencies and Municipalities. In 2030, our ATMS and all 222 Traffic Signal Controllers will have exceeded its end-of-life, since they were deployed in 2017 (13 years old). It is therefore the County's intent to replace these systems with new ATMS and Traffic Signal Controllers, that will better serve the County's planned expansion of its Intelligent Transportation System and optimize traffic signal functions, coordination, as well as TMC operations.

C. Existing Conditions

Traffic Signal Controllers

Collier County currently operates and maintains 222 traffic intersections in the county. These controllers are NEMA TS2-1 and TS2-2 based Intelight controllers.

Traffic Management Software

Collier County currently uses Q-Free's MaxView/Kinetic Signal ATMS to command and control all signalized intersections ad interconnected ITS systems, like detection, preemption and CV2X Travel Time devices.

Attachment A

D. Traffic Signal Controllers

The County will strive to utilize the latest technology available in 2030, which will offer compatibility with our current infrastructure and that of FDOT and adjacent Local Agencies and Municipalities to which Collier County is connected. At this time, Connected Vehicle (CV2X) and the Internet of Things (IoT) integration is an important requirement. If this continues to be the rigor, the new ATMS and Traffic Signal Controllers, will need to account for this integration. Additionally, the system will need to provide the following features:

- Control and Coordination Features
- Controller Preemption and Transit Signal Priority Features
- Time-Based Features
- Detector Features
- Logging Features
- Additional Features
    - Digital Short-Range Communication (DSRC
    - Connected Vehicle-to-Infrastructure (V2I / V2X)) interfacing
    - Any future ITS protocols

E. ATMS Central Control Software Features

The ATMS central control software is an integral part of the traffic operations. The manufacturer or vendor shall provide a new ATMS central control software package, licensing, and supporting ATMS central control software servers or Cloud-based options. The system will need to provide at a minimum, the following features:

- The ATMS central control software shall be capable of supporting any combination of controllers and controller software versions deployed simultaneously in the field.
- The ATMS program needs to be compatible with the County's multi-modal Traffic Count Data System.
- The ATMS will be cloud-based and provide local virtual hosting in the TMC data center, with an appropriate SQL style database.
- Individual client logins shall use secure authentication.
- Access via mobile devices shall be provided.
- The ATMS central control software main interface shall be a graphical user interface and shall consist of a main map.
- ATMS Central Control Software main interface shall contain notifications of active alarms or alerts.
- Logging and Reports
- The ATMS central control software shall be able to produce client customizable reports. At a minimum the following reports should be available:
    - Device Configuration Reports

- Schedule Reports
- Signal Changes Reports
- Detector Event Reports
- Split Monitoring Reports
- System Event Reports
- Upload and compare Reports using a Critical Record Check (CRC) to verify the data is correctly uploaded.
- Detector Volume of Service (VOS) Data Reports should be available including but not limited to the following:
    - Daily
    - Hourly
    - Multi-date hourly
    - Multi-date Daily

The ATMS central control software shall have the ability to provide, display, log, and report a Measure of Effectiveness (MOE).

The operator shall have the ability to define the location of saved or exported system logs files and reports.

The operator shall have the ability to schedule or automated the export of logging and system reports (e.g., Count Data) to multiple file formats including but not limited to Microsoft Excel®, csv, pdf formats.

Controller Interfacing

The ATMS Central Control Software shall have the ability to full interface with the traffic signal controllers running local control software. The ATMS Central Control Software shall fully support all mandatory and optional objects for generic NTCIP 1201/1202 compliant traffic signal controllers.

Features shall include efficient uploading and downloading of the controller database information and the complete set of NTCIP parameters.

When communicating with controller software, the database editor menus and options shall be self-describing. The local traffic signal controller database editor menu structure and parameter/option names shall be configured similar to the corresponding controller software's front panel.

The ATMS should be able to manipulate High-Definition Data from the traffic signals controllers.

The ATMS shall support "live editing" of database whereas the system database editor current table view is refreshed at a minimum of once every 2 seconds with currently active data running in field.

The ATMS shall be able to schedule split time phasing for both coordinated and free operations.

The ATMS shall have ability to name special program days and weeks for intersections. (e.g. Sports event schedules, spring break, holidays, etc.)

The system shall be capable of saving a full database and editing offline, uploading, or downloading the database to/from the field device. Uploaded or downloaded database integrity shall be verified by the ATMS central control software using a Critical Record Check (CRC).

The system shall be capable of copying and pasting programming data from one intersection to another.

The system shall be capable of automatically uploading and comparing local controller databases to archived databases at user configured times.

Main System Map

The ATMS Central Control Software shall contain a main system map. The software shall support a variety of maps such as GIS based maps, Google based maps, Open Streets maps and Bing maps. Other maps may be supported, however, a minimum of three map sources shall be supported.

The client operator shall have the ability to select between having the background reflect map view, aerial view, street view, or a Panorama view (if available).

The main map shall capable up automatically updating imagery and information without requiring user interaction.

The main map shall have the ability to real time display incident and traffic data from traffic data feeds to provide real time status of incidents and traffic conditions.

The client operator shall have the ability to toggle the display of incident and traffic information on or off, and to select which types of traffic information is displayed.

The main map shall display several levels of details based upon the zoom level of the map within each individual client window. Map zoom level shall be controlled by more than one user interactions i.e., mouse wheel scrolling, software interface slider bar, and magnifying glass selection.

It shall be possible to select one or multiple intersections for display in a selected intersection view by clicking on one intersection, or “lassoing” multiple intersections. The user shall be capable of adding or removing single or multiple intersections to the dynamic group without having to reselect all intersections again. All intersections that are selected in this manner shall be visible in the

selected intersection view at the same time.

As the client zooms in on a particular intersection of the map, additional information shall be shown. At a minimum this shall include individual phase status, current operational status, and current pattern, pedestrian and/or overlap indication status.

Clients should be able to toggle or select through a contextual menu device status display such as main street greens, communications status, color coded signal coordination status, signal coordination pattern number (active), preemption status, and time clock/time drift status.

The main map shall alert in the status window and pictorially any intersection where Emergency Vehicle Priority\Preemption is activated. The client operator shall have the ability to toggle the feature on or off.

Selected Intersection Functions, Status, and Views

The client operator shall have the ability to configure and modified the intersection view within the ATMS central control software without the need for separate graphics editor software.

The intersection view background shall be automatically populated with aerials after the intersection/device is located on the main map. Client operators shall also have the ability to add custom static graphics or backgrounds.

Intersection view graphics shall be stored in the system SQL database on the system server.

The ATMS central control software system shall allow a user to save an existing intersection configuration or view as a “template” for new intersections.

The selected intersection view shall display detailed configuration and operational status for the selected intersections. Each item shall be a single icon with a dynamic display. (i.e. Single phase movement status icon displays the Green, Yellow, and Red indications of the configured phase. The views windows at a minimum shall have the ability to show:

- Phase Movement (Left, Right, Through, Left/Right 45-degree angles)
- Pedestrian Movement (Single object displays walk, flashing don’t walk, and don’t walk)
- Overlap Movement (Left, Right, Through, Left/Right 45-degree angles)
- Flashing Yellow Arrow (Flashing Yellow Arrow must flash)
- Protected Permissive Left-Turn (displays green ball and green arrow)

- Preempt status (displays preempt states)

Intersection status windows shall have the ability to be enhanced with client defined data, i.e., controller status window shall be able to display phase numbers and with client labels for approaches such as NB, NBLT, WB, etc.

Intersection status windows shall have the ability to display individual detectors on a channel (e.g., 3 detectors coming back to 1 phase).

Intersection status windows shall be client customizable to filter information as defined by the client operator.

The client operator shall have the ability to view the MMU status in the intersection view window.

The client operator shall have the ability to access real time, programmed and historical time space views, and manual and group plan controls from the selected intersection window.

The client operator shall have the ability to set a Pedestrian Button "No Activity" period for 7 to 14 days.

The client operator shall have the ability to view and control video sources associated with an intersection from the selected intersection window.

The client operator shall have the ability to access other devices associated with the intersection such as UPS, CMU, MMU, VIDS, network switches, wireless radios, and ITS equipment.

Time of Day Schedules (TOD)

TOD schedules should be searchable and filterable. Duplicate or conflicting TOD entries shall be highlighted, flagged, or not allowed (input control). The ATMS central control software shall have the ability to grouped TOD schedules at a minimum, by time and event categories.

The ATMS central control software shall have the ability to presented TOD entries in a tabular format for simpler troubleshooting, modification and correction.

TOD schedule edits shall be logged by the ATMS central control software system allowing client operators to review changes. The initial changes and revision history should be archived so that previous version of TOD schedule can be rolled back.

The ATMS central control software shall be capable of scheduling split monitoring reports by Time of Day for multiple pattern changes.

Detection and Counts

The ATMS central control software shall have the ability to map detectors for all 64 user-defined count stations and other count groupings with lane and direction assignment labels.

The ATMS central control software shall have the ability to differentiate individual detectors on a single channel (e.g. 3 detectors coming back to 1 phase).

The ATMS central control software shall have the ability to display count stations and counts independent from intersections and each other.

The ATMS central control software shall have the ability to export count data should be standard formats.

Any counter should be counted independently by the ATMS central control software to a minimum of 64 phases.

The ATMS central control software shall keep count station and counters log files and stored report data separate from the intersection configuration data and from detection logs, etc. The data log files should be capable of being automatically exported to a secondary database storage location.

Intersection Inventory

The ATMS central control software shall have the ability to store, search, filter, and sort inventory from the traffic control system such as type, make, model, serial numbers, firmware and software revisions, service history etc., in the database.

ATMS Central Control Software Communications

At a minimum, the ATMS central control software shall support any combination of the following communications methods:

- Ethernet
- Fiber Optic
- Wireless Ethernet
- Cellular
- Ethernet over Copper
- Serial over IP
- Ethernet over Dialup (PPP)
- Direct Serial

Attachment A

ATMS Central Control Intelligent Transportation System (ITS) Capabilities

At a minimum, the ATMS central control software shall support interfacing of the following ITS technologies:

- Closed Circuit Television (CCTV) Cameras
- Microwave Detectors
- Bluetooth Detectors
- Dynamic Message Signs
- Vehicle Video (VID) Detection

F. Vendor Responsibilities

All existing controller settings and signal timings shall be converted and/or transferred from the current ATMS and controllers by the manufacturer or vendor prior to installation of equipment by the County.

The manufacturer or vendor shall submit a documented description of the intended process and procedure for transferring the current ATMS and controller data to the new equipment for county approval.

The manufacturer or vendor shall submit a quality assurance plan and quality assurance checklist to the county for approval.

The manufacturer or vendor shall verify that all software and equipment has been properly configured prior to installation by the County.

The controller manufacturer or vendor shall provide and document 48 hours of bench controller operational testing, at an agreed location, prior to field installation by the County.

The manufacturer or vendor shall be available 24 hours a day to provide product support and troubleshooting during the installation phase. The manufacturer or vendor shall consider a thirty (30) workday installation phase.

The manufacturer or vendor shall supply and install redundant servers for the ATMS Central Control Software that meet the requirements outlined in the MTRs.

The manufacturer or vendor will be required to populate the provided ATMS Central Control Software with the new traffic signal controllers provided as part of this project and existing traffic signal controllers not replaced during this phase. The selected manufacturer or vendor will be responsible to provide all deliverables with the proper configurations of all equipment and software items listed in the proposal before final acceptance.

The manufacturer or vendor will be required to populate the provided ATMS central control software with all the initial intersection data, maps, graphics, and client information.

G. Training

In addition to the training requirements described in the MTR, the manufacturer or vendor shall provide training and assistance to the county staff outlining the manufacturer's recommended procedures for installing the new controllers.

The manufacturer or vendor shall provide onsite assistance to the County staff during the installation phase until the manufacturer or vendor is confident that the county staff understands the manufacturers recommended installation procedures.

A project training plan for training the TMC staff in the operation of all systems provided shall be provided

H. Testing

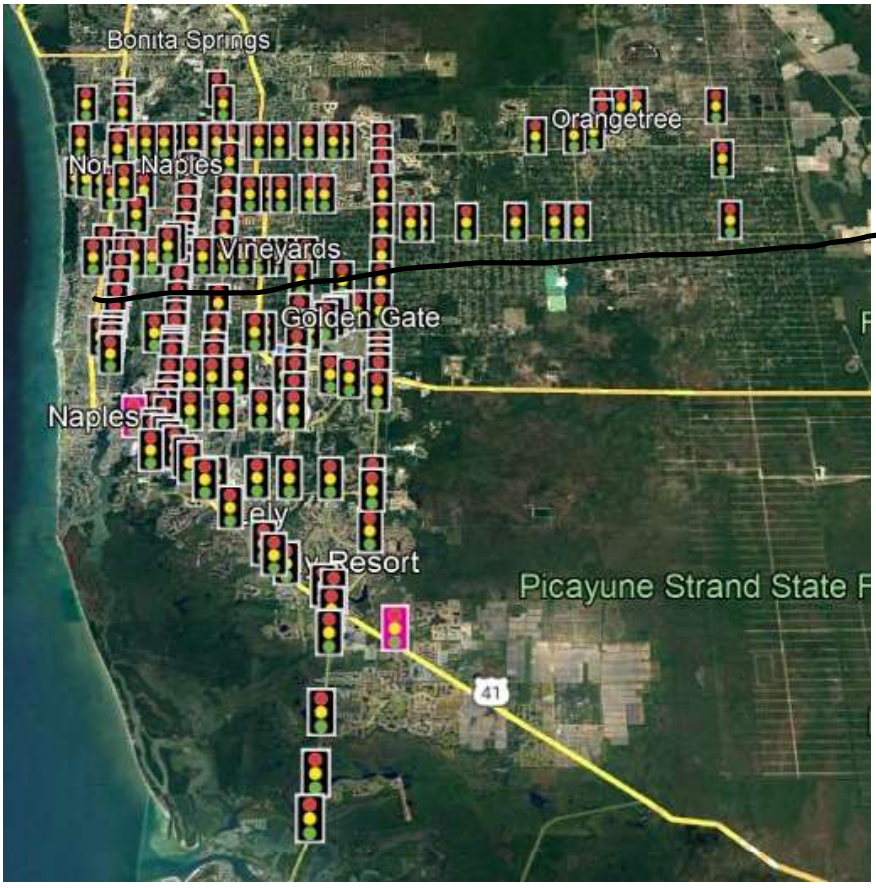
A system engineering test plan shall be provided to ensure that all systems meet their manufacturers' requirements once fully integrated and operational and prior to acceptance by the County. Prior to acceptance by the County all equipment and systems provided must be operational and functioning as required by the County and meet all criteria as set forth in this RFP and the MTRs.

Attachment A

COUNTY MAP – COLLIER COUNTY

The maps below depict the traffic signals under the jurisdiction of Collier County Traffic Operations. Total number of traffic signal controllers will exceed the 222 counts currently in operations by 2030.

Immokalee



Traffic Signals Under the Jurisdiction of Collier County Traffic Operations

Attachment A

Intersection Controller Status Report¬9/19/2023 8:47 AM

Number	Name
1	Airport @ Carillon/Pine Ridge Crossing
2	Airport @ Clubhouse/Rustic Oaks
3	Airport @ Cougar
4	Airport @ Emerald Lakes/Old Grove
5	Airport @ Enterprise
6	Airport @ Estey
7	Airport @ Estuary
8	Airport @ Pine Woods Cir/Europa Dr
9	Airport @ Glades
10	Airport @ Golden Gate Pkwy
11	Airport @ Grey Oaks Blvd/Poinciana Dr
12	Airport @ Progress
13	Immokalee @ Airport
14	Airport @ JC/Fountainview
15	Airport @ Longboat
16	Airport @ Mercantile
17	Airport @ Naples Blvd
18	Airport @ North
19	Airport @ Orange Blossom
20	Airport @ Tiburon
21	Airport Rd @ Pelican Marsh ES (School Signal)
22	Pine Ridge @ Airport
23	Airport @ Poinciana Elementary
24	Airport Rd @ Radio Rd
25	Airport @ Vanderbilt
26	Bayshore @ FS 22
27	Bayshore @ Lakeview/Plantation (HAWK)
28	Bayshore @ Weeks (HAWK)
29	Collier @ Business
30	Collier @ Magnolia/City Gate
31	Collier @ Oakridge/Crystal Lake
32	Collier @ Golden Gate Blvd
33	Collier @ Golden Gate Pkwy
34	Collier @ Grand Lely/Veronawalk
35	Collier @ Green
36	Collier @ I-75 N
37	Collier @ I-75 S
38	Immokalee @ Collier
39	Collier @ Lely Cultural
40	Collier @ Pine Ridge/White
41	Collier @ Rattlesnake
42	Collier @ Walmart
43	Collier @ Tree Farm
44	Collier @ Vanderbilt
45	Collier @ Wolfe
46	Collier @ Capri
47	Collier @ FS 23
48	Collier @ Mainsail
49	Collier @ Manatee Rd
50	Davis Blvd @ Airport Rd
51	Collier @ Davis
52	Davis @ County Barn/Glen Eagle
53	Davis @ FS 20
54	Davis @ Kings way
55	Davis @ Lakewood
56	Davis @ Radio
57	Davis @ Santa Barbara
58	Davis @ Shadowlawn
59	Everglades @ 18th
60	Everglades @ Randall
61	Golden Gate Blvd @ 13th
62	Golden Gate Blvd @ 5th
63	Golden Gate Blvd @ Big Cypress (School Signal)
64	Golden Gate Blvd @ Everglades
65	Golden Gate Blvd @ Max Hasse
66	Golden Gate Blvd @ Wilson
67	Golden Gate Pkwy @ 44TH
68	Golden Gate Pkwy @ 50th
69	Golden Gate Pkwy @ 53rd
70	Golden Gate Pkwy @ Bears Paw/Estuary
71	Golden Gate Pkwy @ Coronado
72	Goodlette @ Golden Gate
73	Golden Gate Pkwy @ 75 E
74	Golden Gate Pkwy @ 75 W
75	Livingston @ Golden Gate Pkwy
76	Golden Gate Pkwy @ Naples HS/Coastland
77	Golden Gate Pkwy @ Santa Barbara
78	Golden Gate Pkwy @ Sunshine
79	Golden Gate Pkwy @ Tropicana Blvd
80	Goodlette @ 13th/14th (School Signal)

Number	Name
112	Lake Trafford @ 19th
113	Livingston @ County Park
114	Livingston @ Enterprise
115	Livingston @ Grey Oaks Blvd
116	Livingston @ Learning Lane
117	Livingston @ Orange Blossom
118	Livingston @ Osceola
119	Pine Ridge @ Livingston
120	Livingston Rd @ Progress Ave / Briarwood Blvd
121	Livingston Road @ Radio Road
122	Livingston @ Vanderbilt
123	Livingston @ Veterans
124	Naples @ Hollywood
125	New Market @ Charlotte
126	Oil Well @ Corkscrew (School Signal)
127	Oil Well @ Everglades
128	Oil Well @ Palmetto (School Signal)
129	Pine Ridge @ FS 40
130	Pine Ridge @ FS 46
131	Pine Ridge @ Forest Lakes/Shirley
132	Pine Ridge @ I-75
133	Pine Ridge @ Osceola ES/Kensignton
134	Pine Ridge @ Logan
135	Pine Ridge @ Napa
136	Pine Ridge @ Naples
137	Pine Ridge @ Pine Ridge Crossing
138	Pine Ridge @ PRMS
139	Pine Ridge @ Vineyards Blvd
140	Pine Ridge @ Whippoorwill
141	Pine Ridge @ YMCA/Carillon
142	Poinciana @ FS 24
143	Radio @ Countryside/Devonshire
144	Radio Rd @ Industrial/Donna
145	Radio @ Madison/Sanctuary
146	Radio Rd @ San Marcos Blvd
147	Santa Barabara @ Radio
148	Rattlesnake @ County barn
149	Rattlesnake @ Grand Lely/Skyway
150	Rattlesnake @ Hawaii
151	Rattlesnake @ Santa Barbara/St Andrews
152	Santa Barbara @ Berkshire/Devonshire
153	Santa Barbara @ Calusa (School Signal)
154	Santa Barbara @ Coronado
155	Santa Barbara @ E.M.S. Station 75
156	Santa Barbara @ Green
157	Santa Barbara @ Prince/Recreation
158	Seagate @ Myra Janco/West
159	SR 29 @ 1st
160	S.R. 29 @ 9th
161	S.R. 29 @ Farm Worker/Village Oak E.S.
162	S.R. 29 @ Immokalee Dr
163	SR 29 @ Lake Trafford
164	SR 29 @ New Market/Westclox
165	US 41 @ Creekside Blvd / 107th Ave N
166	US 41 @ Strada/91st
167	US 41 @ 99/Pelican Marsh
168	US 41 @ Airport/Peters
169	US 41 @ Lakewood/Highland
170	US 41 @ Barefoot Williams
171	US 41 @ Bayshore/Shadowlawn
172	US 41 @ Broward
173	US 41 @ Collier
174	US 41 @ Courthouse/Espinal
175	US 41 @ Guilford
176	US 41 @ Immokalee Rd / 111th Ave N
177	US 41 @ Imperial Golf Course Blvd
178	US 41 @ Manatee
179	US 41 @ Old US 41
180	US 41 @ Palm Dr
181	US 41 @ Pelican Bay N
182	US 41 @ Pelican Bay S
183	US 41 @ Pine Ridge/Seagate
184	US 41 @ Price/Triangle
185	US 41 @ Rattlesnake/Thomasson
186	US 41 @ St. Andrews
187	US 41 @ Southwest
188	US 41 @ SR 29
189	US 41 @ Vanderbilt
190	US 41 @ Wiggins Pass Rd
191	Vanderbilt @ Hammock Oak

Attachment A

81	Goodlette @ 22nd
82	Goodlette @ Fleischmann
83	Goodlette @ Granada
84	Immokalee @ Goodlette
85	Goodlette @ Ohio
86	Goodlette @ Orange Blossom
87	Goodlette @ Panther
88	Goodlette @ Pine Ridge
89	Goodlette @ Solana
90	Vanderbilt @ Goodlette
91	Goodlette @ Wilderness
92	Green @ Sunshine
93	Immokalee @ Arthrex/Collier Reserve
94	Immokalee @ EMS 10
95	Immokalee @ FS 10
96	Immokalee @ Gulf Coast HS
97	Immokalee @ I-75
98	Immokalee @ Lakeland/The Lane
99	Immokalee @ Laurel Oaks/Preserve
100	Immokalee @ Livingston
101	Immokalee @ Logan
102	Immokalee @ Northbrooke
103	Immokalee @ Oil Well
104	Immokalee @ Orange Tree
105	Immokalee @ Palm River/Parnu
106	Immokalee @ Randall/4th
107	Immokalee @ Strand
108	Immokalee @ Valewood
109	Immokalee @ Veterans
110	Immokalee @ Wilson
111	Lake Trafford @ Carson

192	Vanderbilt @ Island Walk
193	Vanderbilt @ Logan
194	Vanderbilt @ North Pointe
195	Vanderbilt @ Oakes
196	Vanderbilt @ Strada
197	Vanderbilt @ Vanderbilt Dr
198	Vanderbilt @ Village Walk/Willshire
199	Vanderbilt @ Vineyards
200	Vanderbilt Dr @ Bluebill Ave / 111th Ave
201	Vanderbilt Dr @ Wiggins Pass Rd
202	Veterans @ FS 45
203	Wolfe @ FS 73
204	Naples @ Dicks
205	Davis @ Market St
206	Collier @ Fiddlers Creek
207	Livingston @ FS 48
208	Immokalee @ Charter
209	Immokalee @ Quarry/Woodcrest
210	Immokalee & FS 42
211	SR 29 @ 3rd St
212	Goodlette @ Creekside/Innovation
213	US41 @ Treviso
214	Collier @ Founders Square/Pebblebrooke
215	Vanderbilt @ Groves
216	Randall @ 8th St
217	Immokalee @ NCA (School Signal)
218	Immokalee @ Twin Eagles Blvd
219	Veterans @ Veterans HS
220	Veterans @ Veterans ES
221	US 41 @ Andrew (HAWK)
222	US 41 @ Pelton (HAWK)

Attachment B

Intelight Traffic Signal Controller in Traffic Signal Cabinet

Traffic Signal Cabinet at Signalized Intersection

Attachment C

ATMS Controller Update

ATMS Software and Traffic Signal Controllers Costs Estimates Collier County			
Description	**QTY**	**Cost per Unit**	**Total Cost**
Controller Cost	222	$ 4,000.00	$ 888,000.00
ATMS Software	1	$ 225,000.00	$ 225,000.00
SQL Software	2	$ 15,000.00	$ 30,000.00
CV2X and other Software Applications	222	$ 500.00	$ 111,000.00
Software Application Training	2	$ 2,500.00	$ 5,000.00
ATMS Software Training	2	$ 2,500.00	$ 5,000.00
Accessories and Cables	222	$ 1,000.00	$ 222,000.00
Extended Hardware Warranty	222	$ 500.00	$ 111,000.00
Traffic Count System Integration	1	$ 25,000.00	$ 25,000.00
		TOTAL:	**$ 1,622,000.00**

Figure 6-6 presents the total costs by project phase for the SIS cost feasible projects for this 2045 LRTP update. Figures 6-7 and 6-8 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 SIS Funded Projects 2026–2045 (YOE $ in millions)

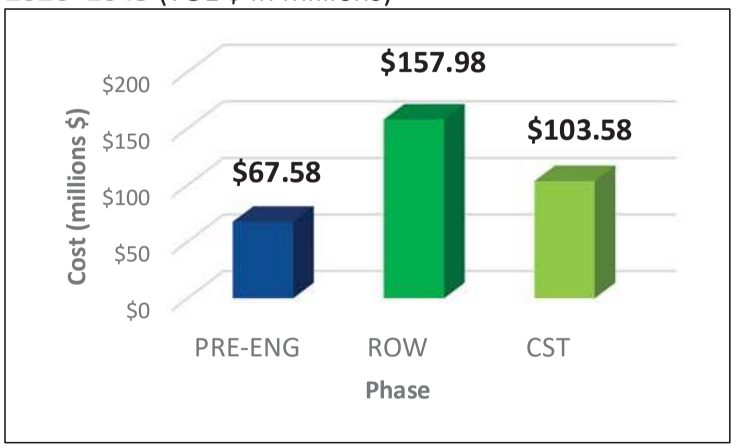


Figure 6-7. Total Costs by Project Phase for FDOT Other Roads and Local Roads Funded Projects 2026–2045 (YOE $ in millions)

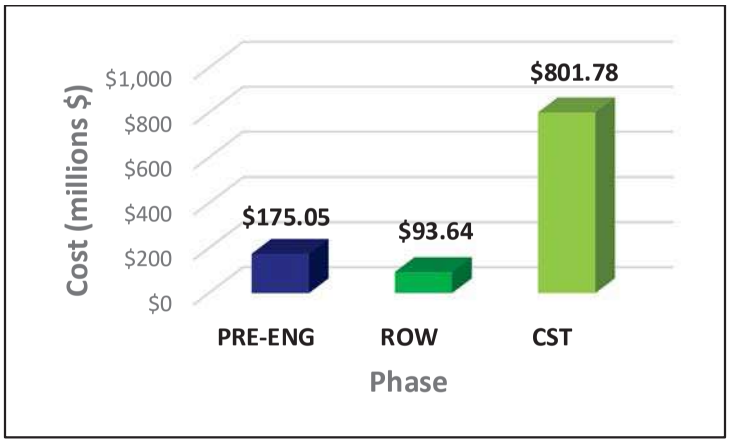
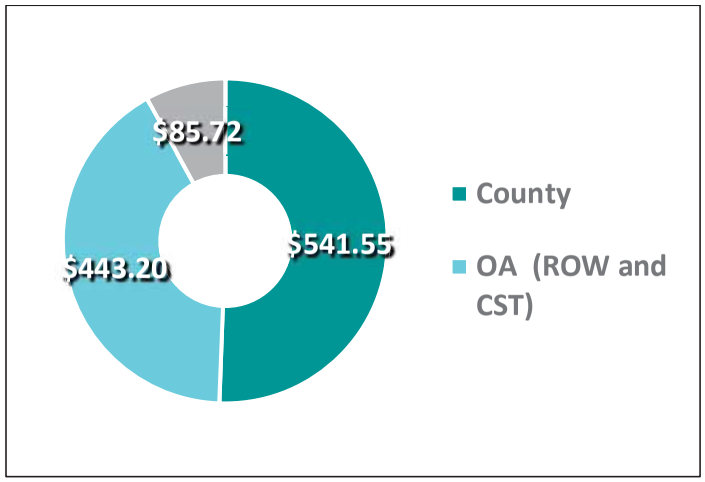


Figure 6-8. Total Costs by Funding Source 2026–2045 (YOE $ in millions)



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 $19.7 million in TMA (or SU) Funds is dedicated for bridge projects in the 2045 LRTP update:

- Planning Period 2026 to 2030: $4.96 million for CST
- Planning Period 2031 to 2035: $4.94 million for CST
- Planning Period 2036 to 2045: $9.8 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 CMP. 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.

The Collier MPO identified congestion management priorities resulting from the TSPR and the Local Road Safety Plan (Collier MPO 2020e). **Tables 6-5** and **6-6** present infrastructure and non-infrastructure multimodal strategies, respectively, that contribute to the MPO's project selection process.

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 Adaptive Traffic Control System 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 $40.45 million in TMA (or SU) Funds is dedicated for future congestion management projects in the 2045 LRTP update:

- Planning Period 2026 to 2030: $10.17 million for CST
- Planning Period 2031 to 2035: $10.13 million for CST
- Planning Period 2036 to 2045: $20.15 million for CST

Other Consideration for SU Funds

In addition to congestion management and bridge projects, the MPO allocates its TMA SU funds to planning, bicycle/pedestrian facilities, and safety projects. These five categories are often referred to as "SU Box" funds by the MPO. The Planning SU Box funds are used to supplement the MPO's federal Planning (PL) funds to cover costs associated with updating the LRTP every 5 years. The MPO may also use SU Box funds to update the Bicycle and Pedestrian Master Plan, Transportation System Performance Report, Local Roads Safety Plan (LRSP), freight studies, and other plans and studies that are integral to updating the LRTP.

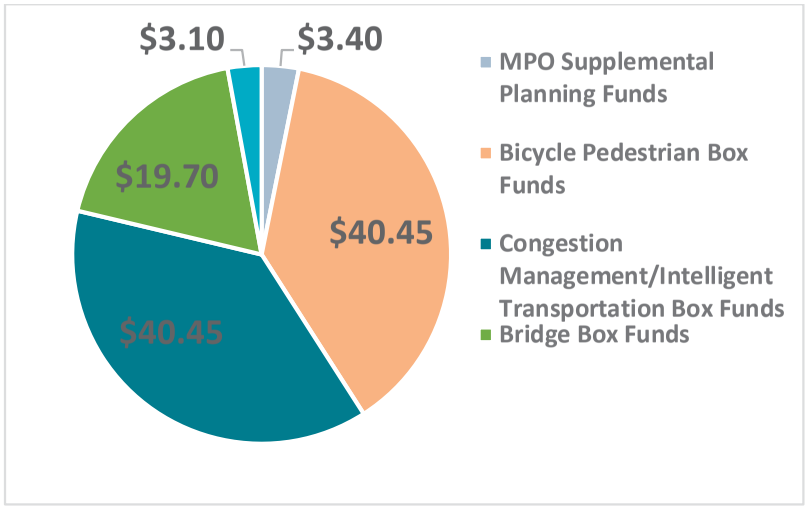
The MPO sets aside SU Box funds allocated to safety projects to implement the LRSP. The LRSP identifies priority projects that include engineering, enforcement, education, and emergency response. Safety projects will be vetted by the Congestion Management Committee, BPAC, TAC, and CAC before going to the MPO Board for adoption. The MPO may also choose to use Safety Box funds to supplement FDOT funding on safety projects that address the MPO's and FDOT's shared Vision Zero Safety Performance Targets. **Table 6-7** presents the presents the SU funds by planning year and project phase. **Figure 6-9** presents a summary of the allocation of SU Funds through 2045.

Attachment D

Table 6-7. SU Box Funds by Planning Year and Project Phase

Allocation Type	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	
MPO Supplemental Planning Funds	$0.70			$0.80			$1.90			$3.40
Bicycle Pedestrian Box Funds			$10.17			$10.13			$20.15	$40.45
Congestion Management/Intelligent Transportation Box Funds			$10.17			$10.13			$20.15	$40.45
Bridge Box Funds			$4.96			$4.94			$9.80	$19.70
Safety			$0.80			$0.80			$1.50	$3.10

Figure 6-9. SU Fund Allocation Through 2045



4.0 Congestion Management Strategies

Federal guidance recommends that identification of congestion management strategies be based on their ability to support regional congestion management objectives, meet local context, and contribute to other regional goals and objectives. Strategies that effectively manage congestion and achieve congestion management goals and objectives established in the CMP process are selected to meet Collier County's specific needs. In the 2020 CMP update process, new CMP strategies were identified and added to the existing strategies list based on the analysis that was conducted in the Baseline Conditions Report which identified causes and locations of congested corridors and the Action Plan which analyzed and identified congestion mitigation strategies for the specific corridors. The main additions include safety strategies and strategies to address school related congestion. Table 4-1 lists the category and respective congestion management strategies identified to mitigate congestion along the CMP network in Collier County.

Table 4-1: Collier MPO Congestion Management Strategies

STRATEGIES: Demand Management (Programmatic), Transportation & Land Use Policy	Improved incident management
	Carpool/Vanpool Assistance and Carpool/Vanpool Technology including School Carpooling Apps
	Flexible Work Hours
	Transit Vouchers
	Transit Oriented Development
	Jobs/Housing Regional Balance
	Implement Complete Streets Policy All New Development
	High-Density & Mixed-Use Fixed Route Corridor
	School Dismissal timing (e.g. stagger dismissal times, dismissal automation software)
	Walking, Biking, Transit and School Bus Awareness/Education campaigns
	Safe Routes to School & School Zone Traffic Congestion Study
	Origin-Destination Study
STRATEGIES: Safety	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 (e.g. left turn signals, variable message signs, pedestrian hybrid beacons)
	New and Upgrade existing bicycle and pedestrian crossings

STRATEGIES: Transit	Amenities to Attract New Ridership
	MPO transit service expansion and improvement (e.g. frequency, hours of operation, realign routes)
	Regional Transit system Expansion
	Bus rapid transit corridor
	Park & Ride facilities
	Intermodal Hubs
	Transit ITS and MOD
	Arrival Prediction Technology
	Park-and-Ride lots
STRATEGIES: ITS & Access Management - Active Roadway Management	Expanded traffic signal timing & coordination - ITS
	Traffic Center Operations Enhancements
	Traffic signal equipment modernization - ITS
	Traveler information devices - ITS
	Communications networks & roadway surveillance - ITS
	Access management
	School Zone Traffic Calming Measures
	School Zone pedestrian and traffic signal optimization
	School off-site waiting lots and curbing and parking zones
STRATEGIES: Physical Roadway Capacity Enhancement	Intersection Improvements
	Replace intersections with round-abouts & other innovative designs
	Deceleration lanes and turn lanes
	New grade-separated intersections
	New travel lanes (general purpose)
	New roadway network connections
STRATEGIES: Bicycle & Pedestrian Facilities	New off-street pedestrian and multi-use facilities to close gaps in the transportation network and make connections to key destinations
	Integrated into TODs, High Density Corridors
	Regional Bike/Ped Facilities
	Complete Streets on New Facilities & Retrofit or new on-street bicycle
	Supporting bicycle infrastructure (e.g. secure and convenient parking, bike repair and pumps)

Attachment D

2023 CMP Congestion Management Strategy & Performance Measure Matrix

Project Name	Submitting Agency	Description	Funding Request	Congestion Management Strategy	CMP Performance Measure(s)
ATMS and Controller Update	Collier County	ATMS and Controller Update	$ 1,622,000.000	ITS & Access Management - Active Roadway Management	Report on nature of comments/responses and customer satisfaction

Collier MPO Congestion Management - Project Concept Sheet

A. REQUIRED PROJECT INFORMATION:

1. Name of Project **(ITS) Retiming of Arterials**
2. Name of Applicant **Trinity Scott**
3. Name of Submitting Jurisdiction **Collier County**
4. If this is a multi-jurisdictional application, please list the jurisdictions involved

   _____
5. Describe the project and its purpose, including the project limits (if applicable). Attachment? [√]

   The project will consist of retiming 39 signalized intersections on Airport Road from Golden Gate Parkway to Pelican Marsh Boulevard/Tiburon Boulevard, on Pine Ridge Road from Goodlette-Frank Road to Logan Boulevard, on Vanderbilt Beach Road from Goodlette-Frank Road to Island Walk Boulevard and on Livingston Road from Pine Ridge Road to Vanderbilt Beach Road, thus reducing delay and improving traffic progression on these key arterials. The Federal Highway Administration (FHWA) states that Retiming traffic signals every three to five years is generally considered to be good engineering practice.
6. Amount of CMC/ITS SU Box funds being requested **$663,000.00** Estimated Total Project Cost **$663,000.00**
   If SU Box funds are not requested, what funding source would be most appropriate?

   _____
7. Are there specific technical and/or monetary local contributions for this project? If yes, please explain.

   YES [ ] NO [√]
8. Anticipated time to complete the project **24 months**
9. Does this project require the acquisition of Right-of-Way? YES [ ] NO [√]
10. Is this project on a congested corridor? Identify the corridor. YES [√] NO [ ]

The Retiming project will be done on the following corridors:

1) ***Airport Road - 15 Intersections***
2) ***Pine Ridge Road - 15 Intersections***
3) ***Vanderbilt Beach Road - 7 Intersections***
4) **Livingston Road - 2 Intersections**

***includes congested corridor** **TOTAL = 39 Intersections**

11. Does this project address a documented safety problem? Explain. YES [ ] NO [√]

12. Does this project address a strategy listed on the implementation matrix? YES [√] NO [ ]

13. Does this project maintain concurrency with FDOT Regional ITS architecture? YES [√] NO [ ]

14. Does this project promote one or more multi-modal solutions by advancing recommendations from an adopted MPO study? Please identify. YES [ ] NO [√]

B. PROJECT SPECIFIC DESCRIPTION:

CHECK ALL STATEMENTS BELOW THAT APPLY TO THE PROJECT WITH EXPLANATION OF HOW IT APPLIES. (If project is funded, you will be expected to provide data to the MPO with 2 years and 5 years of construction/implementation for performance measures selected.)

[ ] 1. Travel Demand - Describe how the project addresses one or more of the following Performance Measures:

a. Percent of roadway miles by volume to capacity (V/C) ratio
b. Percent of vehicle miles traveled by volume to capacity (v/c) ratio
c. Number of signalized intersections connected to ATMS

[√] 2. Transit Travel – Describe how the project addresses one or more of the following performance measures:

a. Average bus route service frequency and number of routes
b. Passenger trips (annual ridership)
c. Passenger trips per revenue hour
d. Transit on time performance

The project goal is to reduce congestion on the selected corridors, through the optimization of signal timing, thus enhancing Transit on time performance.

☐ 3. Pedestrian/Bicycle Facilities – Describe how project addresses one or more of the following Performance Measures:

a. Centerline miles of bicycle lanes
b. Linear miles of connector sidewalks on arterial roadways
c. Linear miles of Shared Use paths adjacent to roadways

☐ 4. Goods Movement – Describe how project addresses one or more of the following performance measures:

a. Vehicle miles traveled (VMT) on designated truck routes with V/C greater than 1/0
b. Number of crashes involving heavy vehicles/trucks

☐ 5. Safety– Describe how project addresses one or more of the following performance measures:

a. Total crashes
b. Motor vehicle severe injury crashes
c. Motor vehicle fatal crashes
d. Pedestrian and bicycle severe injury and fatal crashes

☐ 6. TDM– Describe how project addresses one or more of the following performance measures:

a. Number of people registered in the FDOT Commute Connector database that have an origin in Collier County

☐ 7. Accessibility– Describe how project addresses one or more of the following performance measures:

a. Share of regional jobs within ¼ mile of transit
b. Share of regional households within ¼ mile of transit

☐ 8. Incident Duration– Describe how project addresses one or more of the following performance measures:

a. Mean time for responders to arrive on scene after notification
b. Mean incident clearance time
c. Road Ranger stops

☐ 9. Customer Service– Describe how project addresses one or more of the following performance measures:

a. Report on nature of comments/responses and customer satisfaction

District One
Priority Project Information Packet

Please fill out this application completely. Applications containing insufficient information will not be reviewed by the FDOT

Name of Applying Agency: Collier County

Project Name: (ITS) Retiming of Arterials

Project Category:

Congestion Management	☒	TRIP	☐	CIGP	☐
Transportation Alternative	☐	Transit/Modal	☐		

Is applicant LAP Certified? Yes ☒ No ☐

Is project on State Highway System? Yes ☐ No ☒
If the project is off the state system and the applicant is LAP certified the project will be programmed as a LAP project.

Is the roadway on the Federal Aid Eligible System? Yes ☒ No ☐
If no, give local jurisdiction: Click here to enter text.

Detailed Project Limits/Location:
Describe begin and end points of project, EX., from ABC Rd. to XYZ Ave. Limits run south to north or west to east. Include jurisdiction (city/county), project length, attach a labeled project map.
The project will consist of retiming 39 signalized intersections on Airport Road from Golden Gate Parkway to Pelican Marsh Boulevard/Tiburon Boulevard, on Pine Ridge Road from Goodlette-Frank Road to Logan Boulevard, Vanderbilt Beach Road from Goodlette-Frank Road to Island Walk Boulevard and on Livingston Road from Pine Ridge Road to Vanderbilt Beach Road, thus reducing delay and improving traffic progression on these key arterials in Collier County. The work will entail, conducting vehicle traffic counts and the development and implementation of timing plans.

Discuss how this project is consistent with the MPO/TPO Long Range Transportation Plan?

This project is consistent with the LRTP, as it will address congestion through the optimization of signal timing at 39 Collier County intersections. See Attachment D. Page Number (attach page from LRTP): ***See Attachment D pg 6-11, 6-12, 6-15 and Action Plan pg 4-1 & 4-2.***

Discuss the project in the local jurisdiction's Capital Improvement Plan?
(Attach page from CIP):
The funding requested is for 2030, but Collier's Capital Improvement Program (CIP) only goes out 5 years.

Project Description

Phase(s) requested:

Planning Study ☐ PD&E ☐ PE ☒ ROW ☐ CST ☐ CEI ☐

Project cost estimates by phase (Please include detailed cost estimate and documentation in back-up information):

Phase (PD&E, ROW, PE, CST)	Estimated Total Cost	Funds Requested	Matching Local Funds	Local Fund Source	Type of Match (Cash, in-kind)
[Phase 38]	**$$[663,000.00]**	**$$[663,000.00]**	**$$[0.00]**	**[N/A]**	**[N/A]**
[Phase]	**[Number]**	**[Number]**	**[Number]**	**[Fund Source]**	**[Match Type]**
[Phase]	**[Number]**	**[Number]**	**[Number]**	**[Fund Source]**	**[Match Type]**
[Phase]	**[Number]**	**[Number]**	**[Number]**	**[Fund Source]**	**[Match Type]**

Total Project Cost: $[663,000.00]

Project Details: Clearly describe the existing conditions and the proposed project and desired improvements in detail. Please provide studies, documentation, etc., completed to-date to support or justify the proposed improvements. Include labeled photos and maps. (Add additional pages if needed):

Collier County roadways should have signalized intersection timing updated at least every five years to progress arterial traffic and minimize delay. This project will consist of traffic signalization timing optimization of five coordinated arterial control sections consisting of a total of 39 traffic signals within the County that have not had a complete signalization timing update in excess of five years. Traffic signalization timing optimization of each coordinated control section will require traffic counts, timing plan development, timing plan implementation, and fine tuning of each coordinated control section. The signalized intersections in each coordinated control section are shown on Attachment A pg 4, and Attachment A pg 5.

Constructability Review

For items 2-9 provide labeled and dated photos (add additional pages if needed)

1. Discus other projects (ex. drainage, utility, etc.) programmed (local, state or federal) within the limits of this project? ***Not Applicable.***

2. Does the applicant have an adopted ADA transition plan? Yes ☐ No ☒
   Identify areas within the project limits that will require ADA retrofit. (Include GIS coordinates for stops and labeled photos and/or map.)
   Not Applicable.

3. Is there a rail crossing along the project?
   Yes ☐ No ☒
   What is the Rail MP?
   Enter MP

4. Are there any transit stops/shelters/amenities within the project limits?
   Yes ☒ No ☐
   How many? ***Airport Corridor-19 CAT Bus Stops | Pine Ridge Rd 12 CAT Bus Stops.***
   ID number: ***CAT Bus Routes - R12, R13, R20***

5. Is the project within 5-miles of an airport? Yes ☒ No ☐

6. Coordinate with local transit and discuss improvements needed or requested for bus stops?
   (add additional pages if needed):
   There is currently no transit priority deployed in any of the project corridors. A planned project exists for low-priority transit in 2025. Traffic Operations will work with Collier Area Transit (CAT), to address their requirements.

7. Are turn lanes being added? Yes ☐ No ☒
   If yes, provide traffic counts, length, and location of involved turn lanes.
   Click here to enter text.

8. Drainage structures:
   - Number of culverts or pipes currently in place: ***This is a retiming of intersections only, therefore this is not applicable.***
   - Discuss lengths and locations of each culvert along the roadway: ***This is a retiming of intersections only, therefore this is not applicable.***
   - Discuss the disposition of each culvert and inlet. Which culverts are "to remain" and which are to be replaced, upgraded, or extended? ***This is a retiming of intersections only, therefore this is not applicable.***
   - Discuss drainage ditches to be filled in?
     (Discuss limits and quantify fill in cubic yards) ***This is a retiming of intersections only, therefore this is not applicable.***
   - Describe the proposed conveyances system (add additional pages if needed.) ***This is a retiming of intersections only, therefore this is not applicable.***
   - Are there any existing permitted stormwater management facilities/ponds within the project limits? Yes☐ No ☒
   - If yes, provide the location and permit number (add additional pages if needed)
     Click here to enter text.
   - Discuss proposed stormwater management permits needed for the improvements. ***This is a retiming of intersections only, therefore this is not applicable.***
   - List specific utilities within project limits and describe any potential conflicts (add additional pages if needed): ***This is a retiming of intersections only, therefore this is not applicable.***
   - Discuss Bridges within project limits? ***This is a retiming of intersections only, therefore this is not applicable.***
   - Can bridges accommodate proposed improvements? Yes ☐ No ☒

If no, what bridge improvements are proposed? (Offset and dimensions of the improvements, add additional pages if needed):
This is a retiming of intersections only, therefore this is not applicable.

9. Has Right-of-way (ROW), easements, or ROW activity already been performed/ acquired for the proposed improvements?
   Yes ☐ No ☒
   If ROW or Easements are needed detail expected area of need (acreage needed, ownership status): ***This is a retiming of intersection project therefore no ROW or Easement required.***

10. Discuss required permits (ERP, Drainage, Driveway, Right of Way, etc.): ***No permits required, for this a retiming of intersections project.***
    If none are needed, state the qualified exemption: ***Collier County owns the ROW***

11. Are there any wetlands within the project limits? Yes ☐ No ☒
    If yes, list the type of wetlands, estimated acreage and if mitigation will be required. Please note whether the project is within the geographic service area of any approved mitigation banks. Provide any additional information:
    Click here to enter text.

12. Are there any federal or state listed/protected species within the project limits? Yes ☐ No ☒

    If yes, list the species and what, if any mitigation or coordination will be necessary: Click here to enter text.
    If yes, discuss critical habitat within the project limits: Click here to enter text.

13. Discuss whether any prior reviews or surveys have been completed for historical and archaeological resources (include year, project, results)
    This is not relevant, for it is simply a retiming of arterials project.

14. Are any Recreational, historical properties or resources covered under section 4(f) property within the project limits? Yes ☐ No ☒
    (Provide details) Click here to enter text.

15. Discuss whether any prior reviews or surveys have been completed for sites/facilities which may have potential contamination involvement with the proposed improvements. This should include a discussion of locations which may directly impact the project location, or be which may be exacerbated by the construction of the proposed improvements. ***This is not relevant, for it is simply a retiming of arterials project.***

16. A re lighting improvements requested as part of this project? Yes ☐ No ☒
Please provide a lighting justification report for the proposed lighting.
Click here to enter text.

17. Is a mid-block crossing proposed as part of the project? Yes ☐ No ☒

If yes, please provide the justification for mid-block crossing.
Click here to enter text.

Required Attachments

A. Detailed Project Scope with Project Location Map at sufficient level of detail (Please include typical section of proposed improvements) - ***See Attachment A***
B. Project Photos – dated and labeled - ***See Attachment B***
C. Detailed Cost Estimates including Pay Items - ***See Attachment C***
D. LRTP and Local CIP page - ***See Attachment D pg 6-11, 6-12, 6-15 & pg 4-1, 4-2***
E. Survey/As-builts/ROW documentation/Utility/Drainage information - ***Not Applicable***
F. Detailed breakdown of ROW costs included in estimate (if ROW is needed/included in request or estimate) - ***Not Applicable***

Applicant Contact Information

Agency Name: Collier County
Mailing Address: 2885 S Horseshoe Dr, Naples, FL 34104
Contact Name and Title: Trinity Scott, Department Head
Email: trinity.scott@colliercountyfl.gov **Phone:** (239) 252-5873

Signature: ScottTrinity Digitally signed by ScottTrinity Date: 2023.09.29 13:49:40 -04'00' **Date:** _____

Your signature indicates that the information included with this application is accurate.

Maintaining Agency: Collier County
Contact Name and Title: Trinity Scott, Department Head
Email: trinity.scott@colliercountyfl.gov **Phone:** (239) 252-5873

Signature: ScottTrinity Digitally signed by ScottTrinity Date: 2023.09.29 13:50:36 -04'00' **Date:** _____

Your signature serves as a commitment from your agency to maintain the facility requested.

MPO/TPO:
Contact Name and Title: Anne McLaughlin, Executive Director
Email: Anne.McLaughlin@colliercountyfl.gov **Phone:** 239-252-5884

Signature: _____ **Date:** _____

Your signature confirms the request project is consistent with all MPO/TPO plans and documents, is eligible, and indicates MPO/TPO support for the project.

Attachment A

Project Scope

ITS RETIMING OF ARTERIALS

Project Scope:

Collier County Traffic Operations has as a goal to contract with a reputable Engineering Firm, who will perform a retiming of 39 intersections across several corridors listed in this document, adhering to the Federal Highway Administration (FHWA) Signal Timing guidelines, which can be located in this link, https://ops.fhwa.dot.gov/publications/fhwahop08024/index.htm#toc.

Purpose – Public Good

Reviewing and performing signalized intersection timing is a critical aspect of traffic management and transportation engineering. The primary purpose of this process is to optimize traffic flow and enhance overall transportation efficiency in urban areas. Here are some key purposes and benefits:

1. **Traffic Flow Optimization:** Signalized intersections are common in urban areas, and they can be a major source of traffic congestion if not properly timed. Reviewing and adjusting signal timings helps to ensure that vehicles move smoothly through intersections, reducing delays and improving traffic flow.
2. **Reducing Congestion:** By optimizing signal timings, transportation authorities can reduce congestion and improve the overall efficiency of road networks. This leads to shorter travel times, reduced fuel consumption, and lower emissions, which benefits both commuters and the environment.
3. **Safety Improvement:** Properly timed signalized intersections enhance safety by reducing the likelihood of accidents. This is achieved by minimizing conflicts between vehicles and pedestrians, implementing appropriate phases for left and right turns, and ensuring sufficient clearance time for all movements.
4. **Pedestrian and Cyclist Considerations:** Signal timing reviews also consider the needs of pedestrians and cyclists. Crosswalk timings and pedestrian signal phases are adjusted to provide safe and convenient crossings, encouraging more sustainable modes of transportation.
5. **Emergency Vehicle Access:** Signal timing plans often include provisions for emergency vehicles. These vehicles may be given priority treatment, such as the ability to trigger green lights or have a longer green phase to clear intersections quickly.
6. **Coordination with Traffic Management Systems:** Many urban areas have advanced traffic management systems that allow for real-time adjustment of signal timings. Reviewing signal timings ensures that these systems work effectively, responding to changing traffic conditions and incidents.
7. **Data-Driven Decision Making:** Traffic engineers use data collected from traffic counts, vehicle detection systems, and other sources to inform signal timing adjustments. This data-driven approach helps in making informed decisions to improve traffic operations.
8. **Congestion Pricing and Transit Priority:** In some cases, signal timing may be adjusted to accommodate congestion pricing schemes or to prioritize public transportation, such as buses and trams, to encourage their use and reduce car dependency.

Project Scope

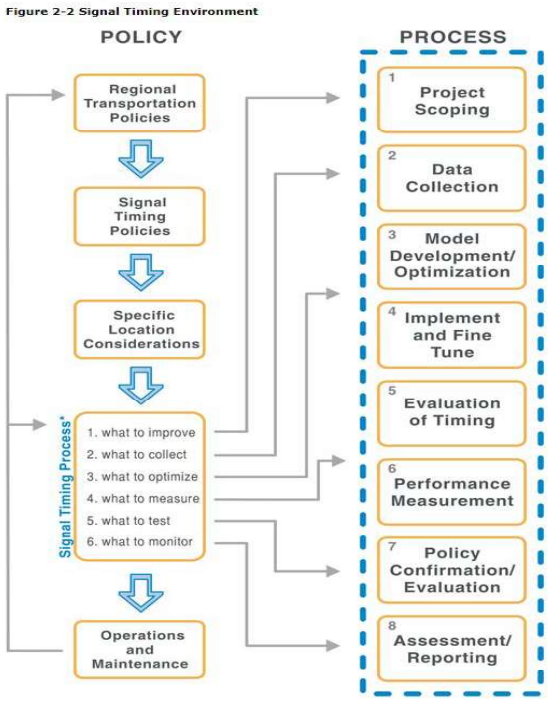
9. **Synchronization:** In areas with multiple signalized intersections, synchronization of signal timings can create "green waves," where a series of traffic lights are coordinated to allow vehicles to travel through multiple intersections without stopping. This reduces stops and starts, improving fuel efficiency and reducing travel times.
10. **Adaptation to Growth:** As Collier County grows and changes, the traffic patterns evolve. Regularly reviewing and adjusting signal timings helps accommodate changes in traffic demand, new developments, and shifts in transportation modes.

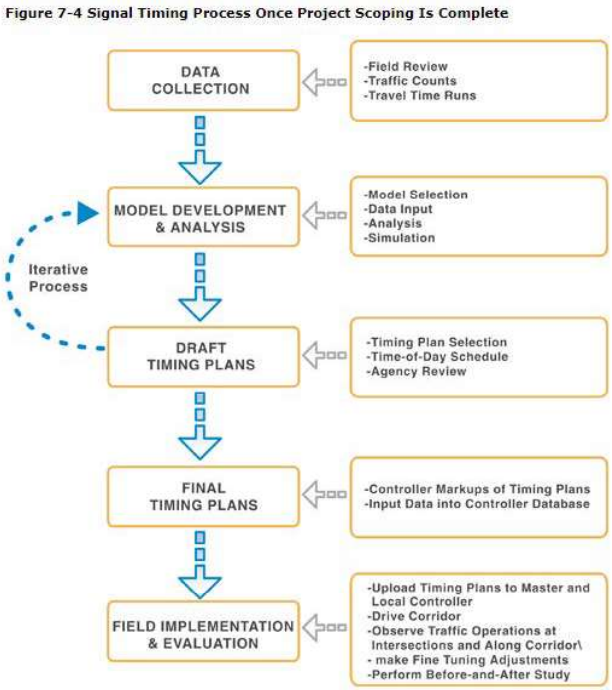
Summary:

In summary, the purpose of reviewing and performing signalized intersection timing is to enhance traffic flow, safety, and overall transportation efficiency. It involves a combination of data analysis, engineering expertise, and technology to ensure that intersections operate optimally, benefiting both commuters and the environment.

Signal Timing Environment

(*The images below depict the Policy and Process recommended by FHWA.)*





Attachment A

Project Scope

List of Signalized Intersections

Airport Rd

1	Airport Rd @ Golden Gate Pkwy
2	Airport Rd @ Estuary Dr
3	Airport Rd @ Poinciana Elementary School
4	Airport Rd @ Grey Oaks Blvd/Poinciana Dr
5	Airport Rd @ Europa Dr/Pinewoods Cir
6	Airport Rd @ Clubhouse Dr/Rustic Oaks Cir
7	Airport Rd @ Carillon Plaza/Pine Ridge Crossing
8	Airport Rd @ Pine Ridge Rd*
9	Airport Rd @ Cougar Dr
10	Airport Rd @ Naples Blvd/Artesia Ln
11	Airport Rd @ J&C Blvd/Fountainview Dr
12	Airport Rd @ Orange Blossom Dr
13	Airport Rd @ Emerald lakes Blvd/Old Groves Rd
14	Airport Rd @ Vanderbilt Beach Rd*
15	Airport Rd @ Pelican Marsh Blvd/Tiburon Blvd E

Livingston Rd

	Livingston Rd @ Pine Ridge Rd*
1	Livingston Rd @ Osceola Trail/Sabal Ridge Way
2	Livingston Rd @ Orange Blossom Dr
	Livingston Rd @ Vanderbilt Beach Rd*

Pine Ridge Rd

1	Pine Ridge Rd @ Logan Blvd
2	Pine Ridge Rd @ Vineyards Blvd
3	Pine Ridge Rd @ Napa Blvd
4	Pine Ridge Rd @ I-75 (West)**
5	Pine Ridge Rd @ I-75 (East)**
6	Pine Ridge Rd @ Whippoorwill Ln
7	Pine Ridge Rd @ Livingston Rd*
8	Pine Ridge Rd @ Kensington Park Blvd/Osceola Trail
9	Pine Ridge Rd @ Carillon Plaza/YMCA
10	Pine Ridge Rd @ Airport Rd*
11	Pine Ridge Rd @ Pine Ridge Crossing
12	Pine Ridge Rd @Naples Blvd
13	Pine Ridge Rd @ Shirley Dr/Forest Lakes Blvd
14	Pine Ridge Rd @ Pine Ridge Middle School
15	Pine Ridge Rd @ Goodlette-Frank Rd

Vanderbilt Beach Rd

1	Vanderbilt Beach Rd @ Island Walk Blvd
2	Vanderbilt Beach Rd @ Logan Blvd
3	Vanderbilt Beach Rd @ Vineyards Blvd
4	Vanderbilt Beach Rd @ Oaks Blvd
5	Vanderbilt Beach Rd @ Village Walk Dr/ Willshire Lakes Blvd
6	Vanderbilt Beach Rd @ Livingston Rd*

Attachment A

Project Scope

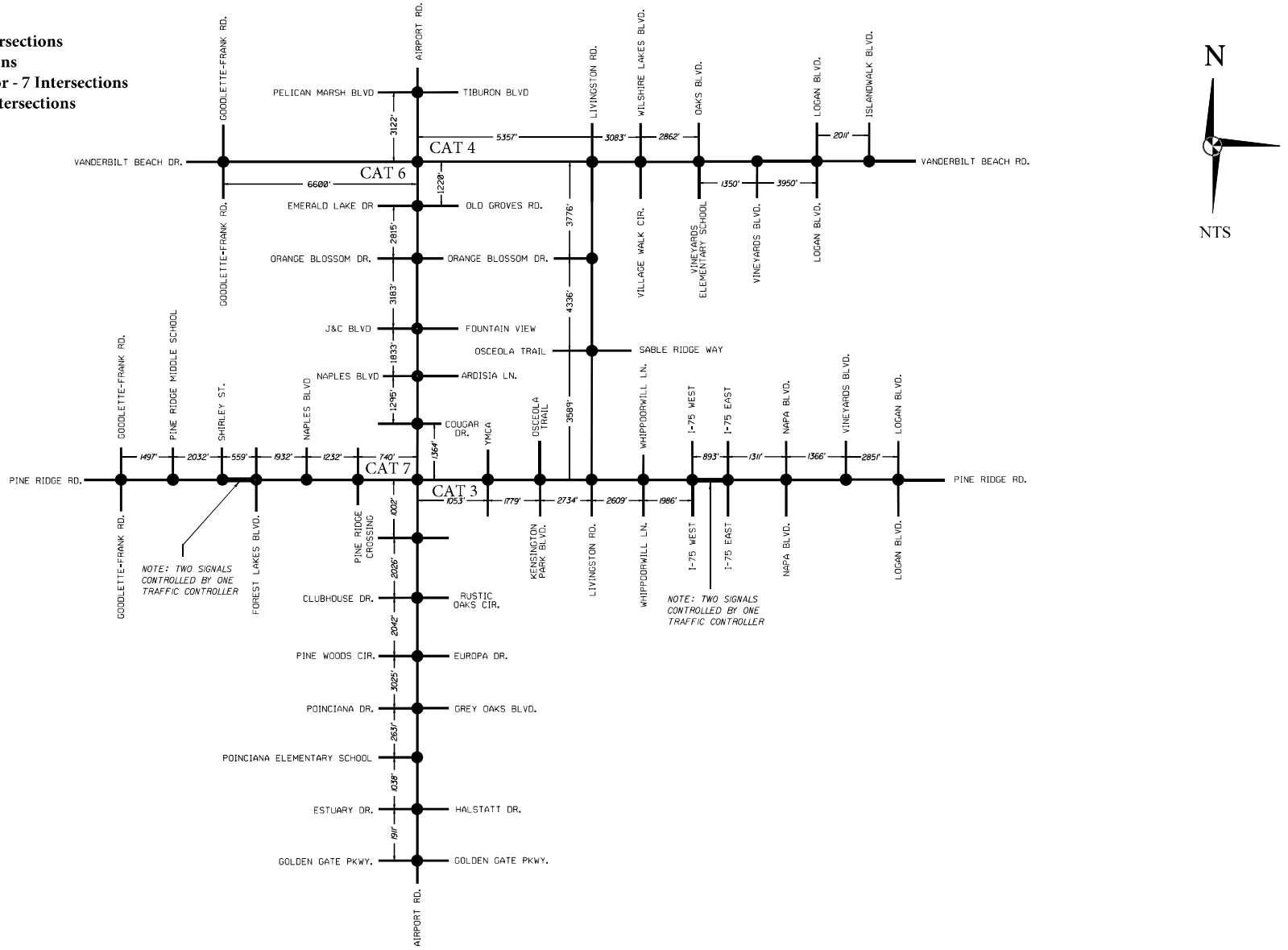
7 Vanderbilt Beach Rd @ Airport Rd *
8 Vanderbilt Beach Rd @ Goodlette Frank Rd

*CONSULTANT shall implement cross coordination where two arterials meet.
**The CONSULTANT shall consider this as two intersections when collecting counts but should note that both intersections are controlled by one controller unit.

Attachment A

Airport Rd Corridor - 15 Intersections
Pine Ridge Rd - 15 Intersections
Vanderbilt Beach Rd Corridor - 7 Intersections
Livingston Rd Corridor - 2 Intersections

Project Corridor Map



LEGEND

● - Signalized Intersection

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

Collier County Traffic Operations
2885 South Horseshoe Drive
Naples, Florida 34104

Phone: (239) 252-8260
Fax: (239) 252-5868

COLLIER COUNTY
TRANSPORTATION ENGINEERING & CONSTRUCTION MANAGEMENT DEPARTMENT
2885 S. HORSESHOE DR.
NAPLES, FLORIDA 34104

$USER$ $DATE$ $TIME$ $FILE$

COLLIER COUNTY
PROJECT LOCATION MAP

SHEET NO. T-1

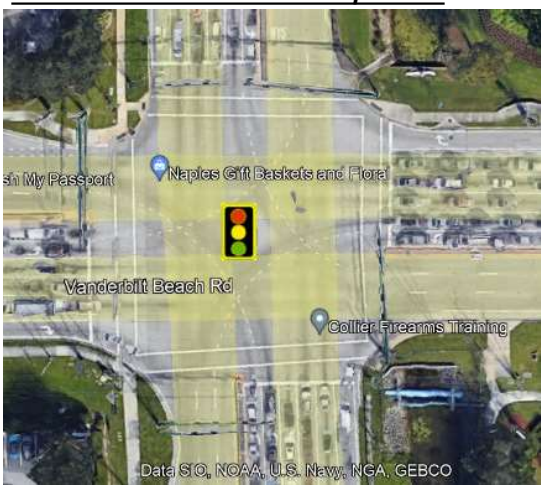
Attachment B

Images of Project Intersections

All Images were compiled on August 30, 2023

Vanderbilt Beach Rd and Goodlette Frank Rd

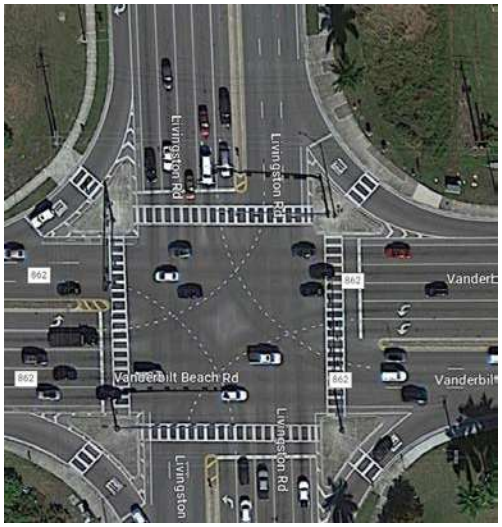
Vanderbilt Beach Rd and Airport Rd



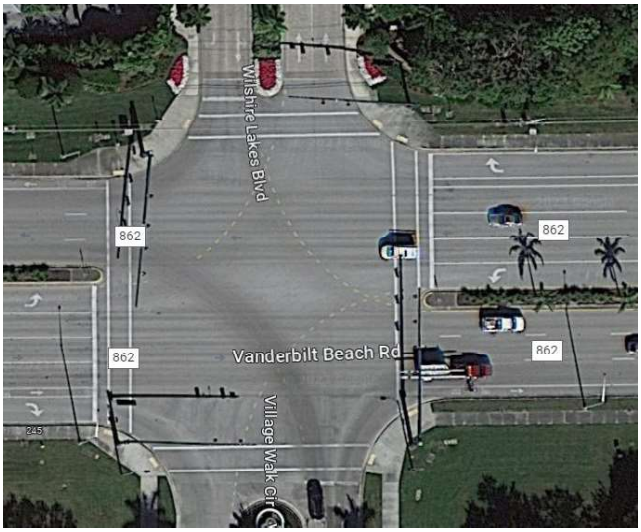
Airport Rd & Pelican Marsh Blvd/Tiburon Blvd

Airport Rd & Emerald Lake Dr / Old Groves Rd

Vanderbilt Beach Rd & Livingston Rd



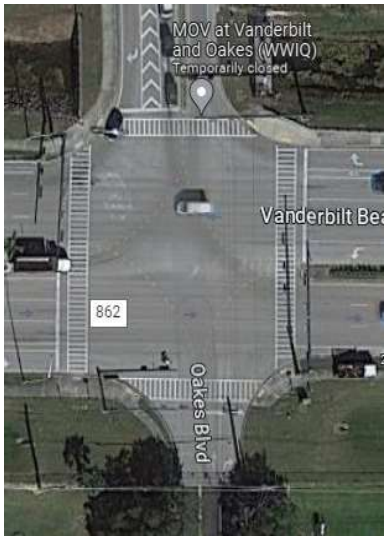
Vanderbilt Beach Rd & Village Walk Cir / Wilshire Lakes Blvd



Attachment B

Images of Project Intersections

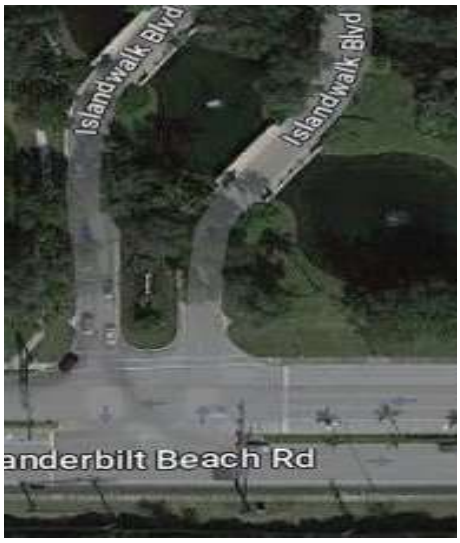
Vanderbilt Beach Rd & Oakes Blvd



Vanderbilt Beach Rd & Vineyards Blvd

Vanderbilt Beach Rd & Logan

Vanderbilt Beach Rd & Island Walk Blvd



Airport Rd & Orange Blossom Dr

Livingston Rd & Orange Blossom Dr

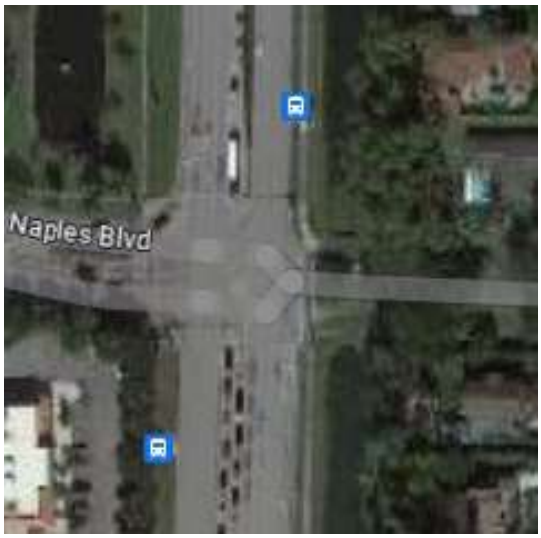
Attachment B

Images of Project Intersections

Airport Rd & J&C Blvd / Fountain View

Livingston Rd & Osceola Trail / Sable Ridge Way

Airport Rd & Naples Blvd / Ardesia Ln.



Airport & Cougar Dr.

Pine Ridge Rd & Goodland Frank Rd

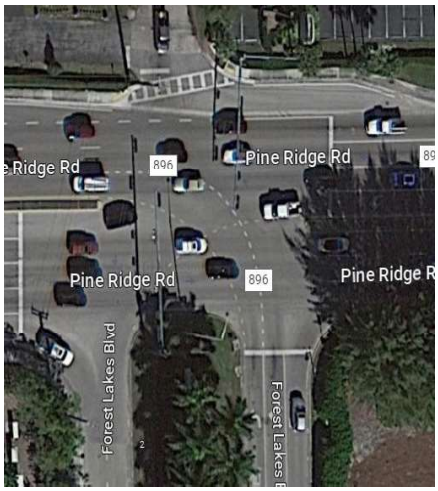
Pine Ridge Rd & Pine Ridge Middle School

Attachment B

Images of Project Intersections

Pine Ridge Rd & Shirley St.

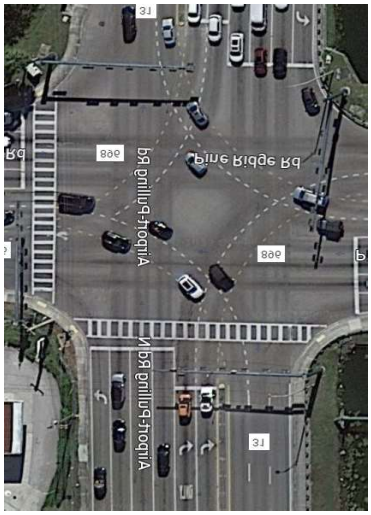
Pine Ridge Rd & Forrest Lakes Blvd



Pine Ridge Rd & Naples Blvd

Pine Ridge Rd & Pine Ridge Crossing

Airport Rd & Pine Ridge Rd



Airport Rd & YMCA

Attachment B

Images of Project Intersections

Pine Ridge Rd & Osceola Trl / Kensington Park Blvd

Pine Ridge Rd & Livingston Rd

Pine Ridge Rd & Whippoorwill Ln

Pine Ridge Rd & I-75 W

Pine Ridge Rd & I-75 E

Pine Ridge Rd & Napa Blvd

Attachment B

Images of Project Intersections

Pine Ridge Rd & Vineyards Blvd

Pine Ridge Rd & Logan Blvd

Livingston Rd & Sable Ridge Way / Osceola Trl

Airport Rd & Pine Ridge Crossing / Carillon Pl

Airport Rd & Rustic Oaks Cir

Airport Rd & Europa / Pinewoods Cir

Attachment B

Images of Project Intersections

Airport Rd & Grey Oaks / Poinciana Dr

Airport Rd & Poinciana Elementary School

Airport Rd & Estuary Dr / Halstatt Dr

Airport Rd & Golden Gate Pkwy

Attachment C

COLLIER COUNTY TRAFFIC SIGNAL TIMING AND COORDINATION Estimate 2030 - Staff Hour Estimate by Task

Task	Description	Labor	Units	Unit Type	Task Hours	Round Trip Travel Time (Hrs) 7.0 No. of Trips	Travel Hrs	Total	Fee	Notes
1	Approach Counts (Pine Ridge Rd)	5.50	3	Counts	16.50	6	42.0	58.50	$ 13,070.17	Seven (7) Days (VHB) (Peak and Off-Peak Season)
2	Turning Movement Counts (Pine Ridge Rd)	161.60	1	Counts	161.60	8	56.0	217.60	$ 67,473.41	Three (3) Day (VHB) (weekday, Saturday, Sunday) (Peak and Off-Peak Season)
1	Approach Counts (Airport Pulling Rd)	5.50	2	Counts	11.00	6	42.0	53.00	$ 13,070.17	Seven (7) Days (VHB) (Peak and Off-Peak Season)
2	Turning Movement Counts (Airport Pulling Rd)	141.40	1	Counts	141.40	8	56.0	197.40	$ 60,784.48	Three (3) Day (VHB) (weekday, Saturday, Sunday) (Peak and Off-Peak Season)
1	Approach Counts (Vanderbilt Beach Rd)	5.50	2	Counts	11.00	6	42.0	53.00	$ 10,026.93	Seven (7) Days (VHB) (Peak and Off-Peak Season)
2	Turning Movement Counts (Vanderbilt Beach Rd)	90.70	1	Counts	90.70	8	56.0	146.70	$ 45,682.41	Three (3) Day (VHB) (weekday, Saturday, Sunday) (Peak and Off-Peak Season)
1	Approach Counts (Livingston Rd)	5.50	1	Counts	5.50	6	42.0	47.50	$ 10,026.93	Seven (7) Days (VHB) (Peak and Off-Peak Season)
2	Turning Movement Counts (Livingston Rd)	20.20	1	Counts	20.20	4	28.0	48.20	$ 13,669.92	Three (3) Day (VHB) (weekday, Saturday, Sunday) (Peak and Off-Peak Season)
3	Field Inventory	2.25	39	Int	87.75	4	28.0	115.75	$ 20,048.12	0.75 hrs per int for field review * 2 people + 0.5 hrs per int for link node diagram + 0.25 (QC)
	Operational Review (Peak Season)	8.00	4	Corridors	32.00	2	14.0	46.00	$ 13,202.96	8 hrs per corridor for operational review (EOR) [peak season weekday only]
	Speed Limit Technical Memorandum	7.00	1	Report	7.00	0	0.0	7.00	$ 1324.93	6 hrs for report + 0.5 hrs (EOR) + 0.5 hrs (QC)
4	Intersection Analysis	2.00	39	Int	78.00	0	0.0	78.00	$ 16,316.21	1 hr per int to develop model + 0.5 hrs per int for existing plan development + 0.25 hrs per int (PE) + 0.25 hrs per int (QC)
5	Arterial Analysis (Synchro and Tru-Traffic)	6.00	39	Int	234.00	0	0.0	234.00	$ 52,621.16	2 seasons * 3 days (weekday, Sat, Sun) * 4 plans = 24 plans * [0.25 hrs per int]
	TOD Graph	2.75	8	Counts	22.00	0	0.0	22.00	$ 4,571.89	2 hr per count location + 0.5 per count location (PE) + 0.25 per count location (QC)
	Peak Hour Volume Diagram	0.50	39	Int	19.50	0	0.0	19.50	$ 4,385.10	0.25 per int + 0.25 (QC)
6	Development of Controller Timings (Draft Timing Report)	12.00	4	Corridors	48.00	0	0.0	48.00	$ 10,783.94	8 hrs per corridor + 2 hrs (PE) + 2 hrs (QC)
	Clearance Interval Analysis	1.50	39	Int	58.50	0	0.0	58.50	$ 13,142.92	1 per int + 0.25 (PE) + 0.25 (QC)
	Controller Timing Sheets	1.00	39	Int	39.00	0	0.0	39.00	$ 9,969.64	0.5 per int + 0.25 (PE) + 0.25 (QC)
7	Timing Implementation and Fine Tuning (Pine Ridge Rd)	120.00	2	Seasons	240.00	6	42.0	282.00	$ 65,528.14	2 people * 4 hrs (program) + 2 people * 11 hrs (3 WD) + 2 * 8 hrs (Sat) + 2 * 8 hrs (Sun) + 10 hrs (County Review) + 1 * 2 hr (Monitoring Period) + 2 hrs (report update)
	Timing Implementation and Fine Tuning (Airport Pulling Rd)	120.00	2	Seasons	240.00	6	42.0	282.00	$ 65,528.14	2 people * 4 hrs (program) + 2 people * 11 hrs (3 WD) + 2 * 8 hrs (Sat) + 2 * 8 hrs (Sun) + 10 hrs (County Review) + 1 * 2 hr (Monitoring Period) + 2 hrs (report update)
	Timing Implementation and Fine Tuning (Vanderbilt Beach Rd)	94.00	2	Seasons	188.00	6	42.0	230.00	$ 53,834.55	2 people * 2 hrs (program) + 2 people * 11 hrs (2 WD) + 2 * 8 hrs (Sat) + 2 * 8 hrs (Sun) + 10 hrs (County Review) + 1 * 2 hr (Monitoring Period) + 2 hrs (report update)
	Timing Implementation and Fine Tuning (Livingston Rd)	59.00	2	Seasons	118.00	6	42.0	160.00	$ 36,974.58	2 people * 1 hrs (program) + 2 people * 11 hrs (1 WD) + 2 * 8 hrs (Sat) + 2 * 8 hrs (Sun) + 1 * 2 hr (Monitoring Period) + 1 hrs (report update)
8	Intersection Evaluation	1.75	9	Int	15.75	0	0.0	15.75	$ 3,678.78	1 hr per intersection + 0.5 (PE) + 0.25 (QC)
	Report	8.00	4	Corridors	32.00	0	0.0	32.00	$ 6,693.83	6 hrs update analysis of improvements/report + 1 hr (PE) + 1 hr (QC)
10	System Evaluation (Peak)	20.00	4	Corridors	80.00	2	14.0	94.00	$ 15,296.87	Weekday, 10 hrs before and 10 hrs after
	System Evaluation (Off-Peak)	20.00	4	Corridors	80.00	2	14.0	94.00	$ 15,296.87	Weekday, 10 hrs before and 10 hrs after
	Summary	6.00	4	Corridors	24.00	0	0.0	24.00	$ 5,391.97	4 hrs + 1 hr (PE) + 1 hr (QC)
11	Final Report	11.00	4	Corridors	44.00	0	0.0	44.00	$ 9,143.77	8 hrs + 2 hr (PE) + 1 hr (QC)
							Sub-total	2747.40	$ 657,538.79	
							Project Management (2 hrs per month for 10 month)	20.00	$ 5,461.21	
							Total	2767.40	$ 663,000.00	

Figure 6-6 presents the total costs by project phase for the SIS cost feasible projects for this 2045 LRTP update. Figures 6-7 and 6-8 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 SIS Funded Projects 2026–2045 (YOE $ in millions)

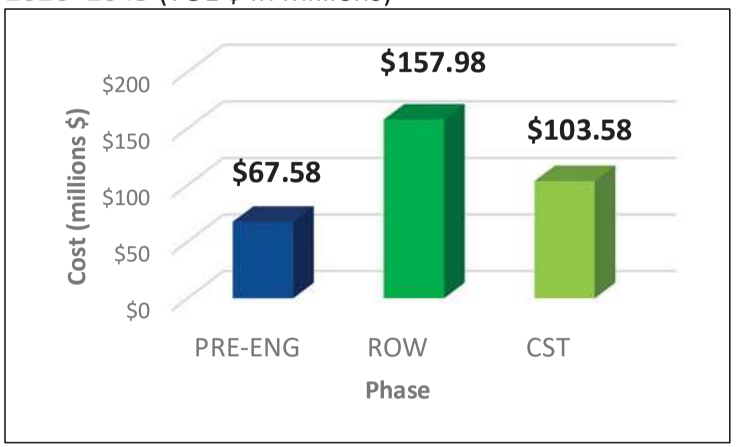


Figure 6-7. Total Costs by Project Phase for FDOT Other Roads and Local Roads Funded Projects 2026–2045 (YOE $ in millions)

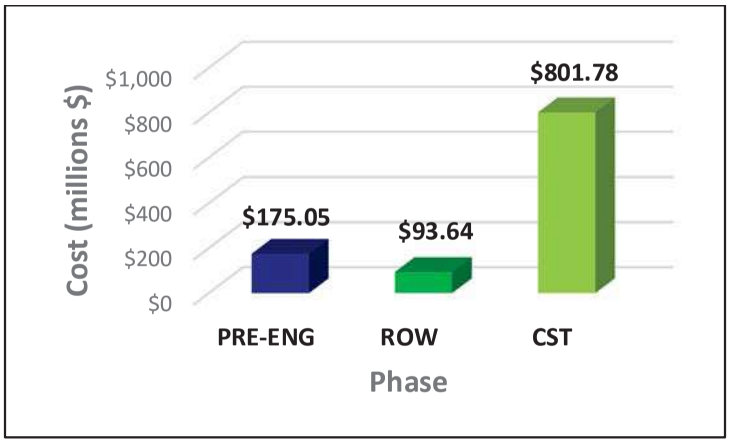
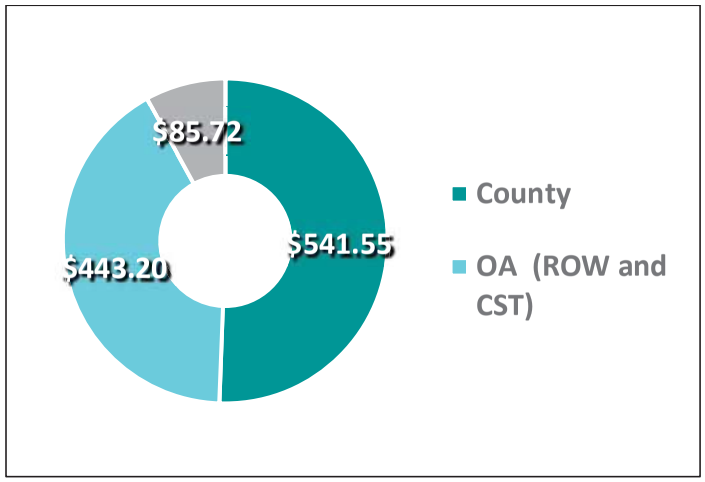


Figure 6-8. Total Costs by Funding Source 2026–2045 (YOE $ in millions)



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 $19.7 million in TMA (or SU) Funds is dedicated for bridge projects in the 2045 LRTP update:

- Planning Period 2026 to 2030: $4.96 million for CST
- Planning Period 2031 to 2035: $4.94 million for CST
- Planning Period 2036 to 2045: $9.8 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 CMP. 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.

The Collier MPO identified congestion management priorities resulting from the TSPR and the Local Road Safety Plan (Collier MPO 2020e). **Tables 6-5** and **6-6** present infrastructure and non-infrastructure multimodal strategies, respectively, that contribute to the MPO's project selection process.

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 Adaptive Traffic Control System 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 $40.45 million in TMA (or SU) Funds is dedicated for future congestion management projects in the 2045 LRTP update:

- Planning Period 2026 to 2030: $10.17 million for CST
- Planning Period 2031 to 2035: $10.13 million for CST
- Planning Period 2036 to 2045: $20.15 million for CST

Other Consideration for SU Funds

In addition to congestion management and bridge projects, the MPO allocates its TMA SU funds to planning, bicycle/pedestrian facilities, and safety projects. These five categories are often referred to as "SU Box" funds by the MPO. The Planning SU Box funds are used to supplement the MPO's federal Planning (PL) funds to cover costs associated with updating the LRTP every 5 years. The MPO may also use SU Box funds to update the Bicycle and Pedestrian Master Plan, Transportation System Performance Report, Local Roads Safety Plan (LRSP), freight studies, and other plans and studies that are integral to updating the LRTP.

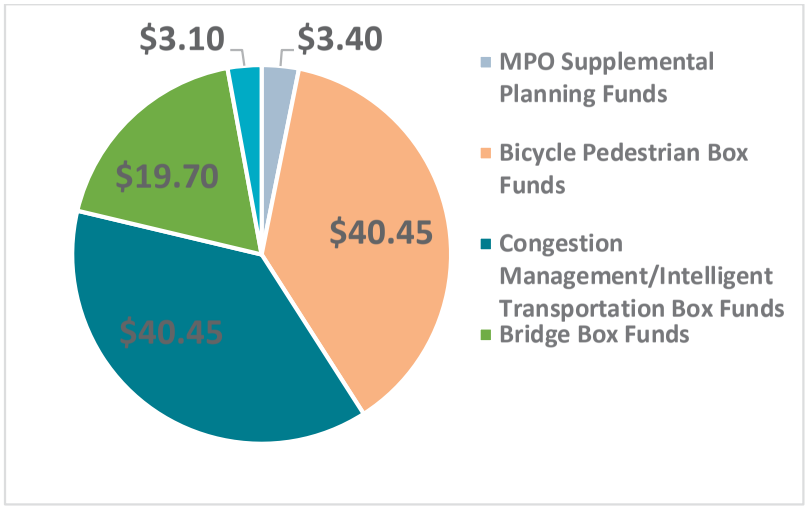
The MPO sets aside SU Box funds allocated to safety projects to implement the LRSP. The LRSP identifies priority projects that include engineering, enforcement, education, and emergency response. Safety projects will be vetted by the Congestion Management Committee, BPAC, TAC, and CAC before going to the MPO Board for adoption. The MPO may also choose to use Safety Box funds to supplement FDOT funding on safety projects that address the MPO's and FDOT's shared Vision Zero Safety Performance Targets. **Table 6-7** presents the presents the SU funds by planning year and project phase. **Figure 6-9** presents a summary of the allocation of SU Funds through 2045.

Attachment D

Table 6-7. SU Box Funds by Planning Year and Project Phase

Allocation Type	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	
MPO Supplemental Planning Funds	$0.70			$0.80			$1.90			$3.40
Bicycle Pedestrian Box Funds			$10.17			$10.13			$20.15	$40.45
Congestion Management/Intelligent Transportation Box Funds			$10.17			$10.13			$20.15	$40.45
Bridge Box Funds			$4.96			$4.94			$9.80	$19.70
Safety			$0.80			$0.80			$1.50	$3.10

Figure 6-9. SU Fund Allocation Through 2045



4.0 Congestion Management Strategies

Federal guidance recommends that identification of congestion management strategies be based on their ability to support regional congestion management objectives, meet local context, and contribute to other regional goals and objectives. Strategies that effectively manage congestion and achieve congestion management goals and objectives established in the CMP process are selected to meet Collier County's specific needs. In the 2020 CMP update process, new CMP strategies were identified and added to the existing strategies list based on the analysis that was conducted in the Baseline Conditions Report which identified causes and locations of congested corridors and the Action Plan which analyzed and identified congestion mitigation strategies for the specific corridors. The main additions include safety strategies and strategies to address school related congestion. Table 4-1 lists the category and respective congestion management strategies identified to mitigate congestion along the CMP network in Collier County.

Table 4-1: Collier MPO Congestion Management Strategies

STRATEGIES: Demand Management (Programmatic), Transportation & Land Use Policy	Improved incident management
	Carpool/Vanpool Assistance and Carpool/Vanpool Technology including School Carpooling Apps
	Flexible Work Hours
	Transit Vouchers
	Transit Oriented Development
	Jobs/Housing Regional Balance
	Implement Complete Streets Policy All New Development
	High-Density & Mixed-Use Fixed Route Corridor
	School Dismissal timing (e.g. stagger dismissal times, dismissal automation software)
	Walking, Biking, Transit and School Bus Awareness/Education campaigns
	Safe Routes to School & School Zone Traffic Congestion Study
	Origin-Destination Study
STRATEGIES: Safety	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 (e.g. left turn signals, variable message signs, pedestrian hybrid beacons)
	New and Upgrade existing bicycle and pedestrian crossings

STRATEGIES: Transit	Amenities to Attract New Ridership
	MPO transit service expansion and improvement (e.g. frequency, hours of operation, realign routes)
	Regional Transit system Expansion
	Bus rapid transit corridor
	Park & Ride facilities
	Intermodal Hubs
	Transit ITS and MOD
	Arrival Prediction Technology
	Park-and-Ride lots
STRATEGIES: ITS & Access Management - Active Roadway Management	Expanded traffic signal timing & coordination - ITS
	Traffic Center Operations Enhancements
	Traffic signal equipment modernization - ITS
	Traveler information devices - ITS
	Communications networks & roadway surveillance - ITS
	Access management
	School Zone Traffic Calming Measures
	School Zone pedestrian and traffic signal optimization
	School off-site waiting lots and curbing and parking zones
STRATEGIES: Physical Roadway Capacity Enhancement	Intersection Improvements
	Replace intersections with round-abouts & other innovative designs
	Deceleration lanes and turn lanes
	New grade-separated intersections
	New travel lanes (general purpose)
	New roadway network connections
STRATEGIES: Bicycle & Pedestrian Facilities	New off-street pedestrian and multi-use facilities to close gaps in the transportation network and make connections to key destinations
	Integrated into TODs, High Density Corridors
	Regional Bike/Ped Facilities
	Complete Streets on New Facilities & Retrofit or new on-street bicycle
	Supporting bicycle infrastructure (e.g. secure and convenient parking, bike repair and pumps)

2023 CMP Congestion Management Strategy & Performance Measure Matrix

Project Name	Submitting Agency	Description	Funding Request	Congestion Management Strategy	CMP Performance Measure(s)
(ITS Retiming of Arterials	Collier County	(ITS Retiming of Arterials	$ 663,000.00	ITS & Access Management - Active Roadway Management	Transit On-Time Performance