St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

REGULAR BOARD MEETING

Wednesday, October 2, 2024
2:00 pm

Public Participation/Accessibility

Participation in Person: Public comments may be provided in person at the meeting. Persons who require special accommodations under the Americans with Disabilities Act (ADA) or persons who require translation services (free of charge) should contact the St. Lucie TPO at 772-462-1593 at least five days prior to the meeting. Persons who are hearing or speech impaired may use the Florida Relay System by dialing 711.

Participation by Webconference: Using a computer or smartphone, register at https://attendee.gotowebinar.com/register/5089882758896111192. After the registration is completed, a confirmation will be emailed containing instructions for joining the webconference. Public comments may be provided through the webconference chatbox during the meeting.

Written and Telephone Comments: Comment by email to TPOAdmin@stlucieco.org; by regular mail to the St. Lucie TPO, 466 SW Port St. Lucie Boulevard, Suite 111, Port St. Lucie, Florida 34953; or call 772-462-1593 until 1:00 pm on October 2, 2024.

AGENDA

1. Call to Order
2. Pledge of Allegiance
3. Roll Call
4. Comments from the Public
5. Comments from Advisory Committee Members (TAC/CAC/BPAC)
6. Approval of Agenda
7. Approval of Meeting Summary
   - *August 7, 2024 Regular Board Meeting*
8. Consent Agenda

   8a. Appointments to the Bicycle-Pedestrian Advisory Committee (BPAC) and Local Coordinating Board for the Transportation Disadvantaged (LCB): Appointments to the TPO BPAC and LCB to fill vacancies.

   Action: Appoint or do not appoint.

   8b. 2025 Traffic Count Data Management System (TCDMS) Scope of Services: Approval of the scope of services to complete the 2025 traffic counts for the TCDMS.

   Action: Approve or do not approve.

8c. Memorandum to the Interlocal Agreement for Creation of the Metropolitan Planning Organization: Approval of the Memorandum to the Interlocal Agreement for the withdrawal of the Council on Aging of St. Lucie, Inc. from the TPO Board.

Action: Approve or do not approve.

9. Action Items

9a. US-1 Corridor Congestion Study Scope of Services: Approval of the US-1 Corridor Congestion Study draft Scope of Services.

Action: Approve the draft Scope of Services for the US-1 Corridor Congestion Study, approve with conditions, or do not approve.

9b. Florida Shared-Use Nonmotorized (SUN) Trail Port Connector Feasibility Study: Endorsement of the proposed Preferred Alternative of the SUN Trail Port Connector Feasibility Study.

Action: Endorse the Preferred Alternative of the SUN Trail Port Connector Feasibility Study, endorse with conditions, or do not endorse.

9c. 2020 Federal Roadway Functional Classification Map: Approval of the draft 2020 Federal Roadway Functional Classification Map for the TPO area.

Action: Approve the draft 2020 Map for the TPO area for execution by the TPO Executive Director, approve with conditions, or do not approve.

10. Discussion Items

10a. Port St. Lucie Boulevard Construction and Programming Update: An update on the ongoing and future construction projects to widen Port St. Lucie Boulevard from Gatlin Boulevard to Becker Road.

Action: Discuss and provide comments.

10b. Autonomous Vehicle Study Update: Presentation of an update to the Autonomous Vehicle Study.

Action: Discuss and provide comments.

10c. St Lucie County Sustainable Mobility Infrastructure Study: Presentation of the St Lucie County Sustainable Mobility Infrastructure Study.

Action: Discuss and provide comments.

11. FDOT Comments

12. Recommendations/Comments by Members

13. TPO Staff Comments

14. Next Meeting: The next St. Lucie TPO Board Meeting is a regular meeting scheduled for 2:00 pm on Wednesday, December 4, 2024.

15. Adjourn

NOTICES

The St. Lucie TPO satisfies the requirements of various nondiscrimination laws and regulations including Title VI of the Civil Rights Act of 1964. Public participation is welcome without regard to race, color, national origin, age, sex, religion, disability, income, or family status. Persons wishing to express their concerns about nondiscrimination should contact Marceia Lathou, the Title VI/ADA Coordinator of the St. Lucie TPO, at 772-462-1593 or via email at lathoum@stlucieco.org.

Items not included on the agenda may also be heard in consideration of the best interests of the public's health, safety, welfare, and as necessary to protect every person's right of access. If any person decides to appeal any decision made by the St. Lucie TPO with respect to any matter considered at this meeting, that person shall need a record of the proceedings, and for such a purpose, that person may need to ensure that a verbatim record of the proceedings is made which includes the testimony and evidence upon which the appeal is to be based.

Kreyòl Ayisyen: Si ou ta renmen resevwa enfòmasyon sa a nan lang Kreyòl Ayisyen, tanpri rele nimewo 772-462-1593.

Español: Si usted desea recibir esta informaciòn en español, por favor llame al 772-462-1593.

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd. Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

REGULAR BOARD MEETING

DATE: Wednesday, August 7, 2024

TIME: 2:00 pm

MEETING SUMMARY

1. Call to Order

Chairman Dzadovsky called the meeting to order at 2:05 pm.

2. Pledge of Allegiance

Chairman Dzadovsky led the Pledge of Allegiance.

3. Roll Call

The roll was called, and a quorum was confirmed with the following members present:

Members Present	Representing
Commissioner Chris Dzadovsky, Chair	St. Lucie County
Commissioner Curtis Johnson, Jr., Vice Chair	City of Fort Pierce
Vice Mayor Jolien Caraballo	City of Port St. Lucie
Robert Driscoll	Community Transit
Commissioner Jamie Fowler	St. Lucie County
Mayor Linda Hudson	City of Fort Pierce
Jack Kelly	St. Lucie Public Schools
Commissioner Larry Leet	St. Lucie County
Mayor Shannon Martin	City of Port St. Lucie
Councilwoman Stephanie Morgan	City of Port St. Lucie

Others Present	Representing
Kyle Bowman	St. Lucie TPO
Peter Buchwald	St. Lucie TPO
Yi Ding	St. Lucie TPO
Marceia Lathou	St. Lucie TPO
Stephanie Torres	St. Lucie TPO
Rachel Harrison	Recording Specialist
Theodore Agnew	Resident
Sandra Bogan	St. Lucie County
James Brown	Florida's Turnpike
Kelly Budhu	Florida Department of Transportation (FDOT)
Adolfo Covelli	St. Lucie County Transit
Robert Cursey (via web)	Benesch
Erin Deady (via web)	Deady Law
Ciara Forbes	TPO/County Attorney
Kimberly Graham	FDOT
Steve Infanti	Benesch
Lucine Martens (via web)	Martin Metropolitan Planning Organization
Tony Norat	FDOT
Henry Pinzon	Florida’s Turnpike
Jeff Robbert	FDOT
Nik Schroth	NAI Southcoast
Andrew Velasquez	Florida’s Turnpike
Georgia Vince	Tetra Tech

4. Comments from the Public – None.

5. Comments from Advisory Committee Members (TAC/CAC/BPAC) – None.

6. Approval of Agenda

* MOTION by Councilwoman Morgan to approve the agenda.

** SECONDED by Mayor Martin Carried UNANIMOUSLY

7. Approval of Meeting Summary
   - June 5, 2024 Regular Board Meeting

Mr. Buchwald noted the need to amend the Meeting Summary by inserting "under certain circumstances" after "Drive" in the last sentence of the discussion of Agenda Item 9b.

* MOTION by Mayor Martin to approve the Meeting Summary as amended.

** SECONDED by Commissioner Leet Carried UNANIMOUSLY

8. Consent Agenda

8a. Amendments to the Transportation Improvement Program (TIP): Notifications of administrative amendments to the FY 2023/24 – FY 2027/28 TIP for the SR-70/Okeechobee Road Resurfacing Project and to the FY 2024/25 – FY 2028/29 TIP to incorporate the 2024 Roll Forward Report.

8b. Unified Planning Work Program (UPWP) Tasks and Budget and Grants End-of-Term Reviews: End-of-term reviews of the UPWP tasks and budget and the grants administered by the TPO.

* MOTION by Mayor Hudson to approve the Consent Agenda.

** SECONDED by Commissioner Leet Carried UNANIMOUSLY

9. Action Items

9a. Executive Director's Performance Review: Review of the Executive Director's performance for FY 2023/24 and the TPO Executive Committee recommendations including refinements to the review process.

At Chairman Dzadovsky's invitation, Mr. Buchwald provided a summary of the recommendations made by the TPO Executive Committee, which included a five percent salary increase for the Executive Director for FY 2024/25 and a refinement to the procedure for conducting future performance reviews. Chairman Dzadovsky explained the Committee's rationale for recommending the changes to the performance review process, noted the Committee's consensus regarding Mr. Buchwald's exemplary performance over the previous fiscal year, and outlined the Committee's suggestions for the negotiation of a new contract with

Mr. Buchwald. Ms. Forbes then presented the aggregated results from the nine evaluation forms that had been returned, reporting that Mr. Buchwald had received an average score of 1.96 out of a possible two points for the various evaluation measures.

Vice Mayor Caraballo thanked Mr. Buchwald for his service and indicated that she looked forward to working with him in the coming years. Several members concurred, with Councilwoman Morgan expressing her hope that Mr. Buchwald would remain in his position for the foreseeable future.

Mr. Buchwald thanked the members for their vote of confidence, attributing his success to their direction and to the support of his staff. Chairman Dzadovsky commended Mr. Buchwald's leadership, noting that he had been considerate of his staff's needs during recent salary discussions.

* MOTION by Mayor Martin to approve the Executive Director's Performance Review and Executive Committee recommendations, including a five percent salary increase for the Executive Director retroactive to July 1, 2024, as well as authorization for the Chairman to execute an amendment to the Executive Director's employment agreement to allow for the salary adjustment.

* * SECONDED by Vice Mayor Caraballo Carried UNANIMOUSLY

9b. Project Development and Environment Study (PD&E) for Widening Florida's Turnpike from State Route 70 (Okeechobee Road) to State Route 60 (Yeehaw Junction): An update by Florida's Turnpike on the PD&E for the widening of the Turnpike from State Route 70 to State Route 60.

Mr. Buchwald described the phasing of the Turnpike's efforts to widen the mainline corridor in St. Lucie County before explaining the significance of the PD&E to the overall project development process. He then introduced Mr. Leo, who demarcated the geographical limits of the Turnpike segment included in the PD&E under discussion, displayed diagrams of the existing and planned design of the mainline facility, and explained why the widening had been identified as a need. Mr. Leo presented the two alternatives under consideration for the redesign of the interchange at State Route 60 and reported on the status of the proposed Northern Connector interchange. He concluded with an outline of the schedule for the widening project.

In response to Councilwoman Morgan's question, Mr. Velasquez indicated that the PD&E for the widening of the Turnpike segment between Indiantown Road and State Road 70 had been completed, with design underway for the portions of the Turnpike located in Martin County. He added that the design for the Turnpike segment between Becker Road and State Road 70 had been included in the present Work Program but reported there was presently no funding for construction. Councilwoman Morgan inquired about the use of the Turnpike's toll revenue, and Mr. Velasquez explained that all toll revenue was reinvested in the Turnpike system but prioritized according to statewide needs, citing several projects that had been in development for years before being funded for construction only recently. He clarified the phasing timeline for the design of various Turnpike segments through St. Lucie County and noted that the Midway Road Turnpike interchange was funded for construction.

In answer to Vice Chairman Johnson's question, Mr. Leo reported on the status of the redesign of the State Road 60 interchange and clarified the design of the preferred alternative. Vice Chairman Johnson remarked on several challenges presented by the current design of the interchange, and Mr. Leo elaborated on the findings from the public information meetings held thus far.

Vice Mayor Caraballo inquired about the possibility of implementing fee-based express lanes as part of the widening efforts. Mr. Velasquez explained that express lanes were typically used to provide additional throughput in congested areas rather than being used as a revenue source. Describing how the Turnpike assesses tolls, he elaborated on its current initiative of widening the mainline facility to at least three lanes in each direction from the Turnpike's southern terminus northward to the I-75 interchange.

Referencing past issues regarding the timely clearing of the Turnpike after an accident, Councilwoman Morgan asked if any special protocols were being considered for accident clearing during the widening process. Mr. Velasquez identified several emergency access locations used by first responders and indicated that additional access points would be considered going forward. He explained that service plazas and interchanges usually served as the only authorized places for travelers to turn around, although patrol officers occasionally allowed vehicles to use median breaks for that purpose. Discussion ensued regarding the Turnpike's Rapid Incident Scene Clearance program.

In response to Mr. Kelly's comments, Mr. Velasquez described improvements that had been made to the State Road 60 interchange

several years before. Mr. Kelly questioned the redesign of the interchange given the recency of those improvements, and Mr. Velasquez explained that the present initiative was intended to address much longer-term safety and operational needs.

Chairman Dzadovsky initiated a discussion regarding the strategic significance of the Treasure Coast International Airport and the proposed Northern Connector project that was intended to link the airport to both I-95 and the Turnpike. He reported on upcoming improvements to the airport, explained how the airport was anticipated to impact the local economy, and emphasized the need to provide airport access to the Turnpike. Chairman Dzadovsky then urged the Turnpike to restore the consideration of the Northern Connector interchange to the PD&E, especially given the long-term nature of the planning horizon and the complexity of the necessary jurisdictional coordination.

Mr. Velasquez acknowledged the potential benefits of the Northern Connector project and indicated that the analysis thus far had demonstrated the feasibility of the interchange from an engineering perspective, explaining the need to have a public roadway connection to the Northern Connector in place before proceeding further with the development of the interchange. Chairman Dzadovsky noted the intent to implement the project in stages and emphasized the importance of the Turnpike interchange remaining a priority. Mr. Kelly concurred, elaborating on the history of the airport's development, while Commissioner Leet expounded on the airport's potential capacity for cargo traffic given its size and location.

Mr. Velasquez explained the significance of the Interchange Justification Report to the overall interchange development process, while Mr. Buchwald reported on the corridor alignment study that had been initiated by the TPO and St. Lucie County to provide a connection to St. Lucie Boulevard from the planned I-95 interchange. In response to Mr. Buchwald's question, Mr. Pinzon explained that the present PD&E effort would not be compromised if the Northern Connector roadway were later developed as a separate PD&E would be required to develop the proposed interchange.

Mr. Buchwald recognized Mr. Pinzon to the members and described his role in the development of the planned Midway Road Turnpike interchange, subsequently noting that the design of the Port St. Lucie Turnpike interchange improvements would soon begin. Chairman Dzadovsky thanked Mr. Pinzon and the other Turnpike and FDOT

representatives for their efforts in support of the area's economic development.

* MOTION by Mayor Martin to endorse the PD&E alternatives.

** SECONDED by Vice Mayor Caraballo Carried UNANIMOUSLY

9c. Congestion Management Process (CMP) Major Update: Adoption of the CMP Major Update.

Mr. Buchwald introduced Mr. Ding, who explained how the Congestion Management Process (CMP) was funded and updated. He invited Mr. Infanti to continue, and Mr. Infanti began by describing the purpose and components of the CMP. He provided an overview of the scope of the Major Update, identified the members of the Working Group assembled to facilitate it, and defined the CMP network. Mr. Infanti described how several corridors within the network had been identified as needing improvements and subsequently were prioritized before noting the recommended project phasing and implementation timeline.

Councilwoman Morgan initiated a discussion regarding St. Lucie West Boulevard, questioning the corridor's absence from the prioritized list of needs. Mr. Infanti explained that St. Lucie West Boulevard had not been included in the CMP needs list despite general concern over congestion because the cause of that congestion, namely the consistent cross traffic flow at many of the corridor's intersections, could not easily be mitigated using CMP strategies. He reported that operational improvements had already been made to the corridor's intersections in combination with the widening of the bridge over I-95 and indicated that the roadway was not over capacity in terms of traffic volumes. Mr. Infanti also noted that the Crosstown Parkway connection between I-95 and U.S. 1 had alleviated some of the traffic on St. Lucie West Boulevard.

Councilwoman Morgan acknowledged the effectiveness of Crosstown Parkway and commended the improvements that had been made to intersections on St. Lucie West Boulevard but expressed doubt regarding the acceptability of the roadway's level of service during daytime hours. She noted that congestion was further exacerbated by events held at Clover Park stadium, with Mr. Kelly commenting that the bridge improvements had mitigated only some of the corridor's traffic flow issues.

In response to Chairman Dzadovsky's question, Mr. Buchwald explained CMP funding as being in the range of $300,000-$400,000, which made it better suited to projects that were relatively small in scope and could

be implemented quickly. Mr. Buchwald reported that St. Lucie West Boulevard's safety metrics were within the range of acceptability despite the corridor's congestion, noting that a Transportation Regional Incentive Program (TRIP) grant was being pursued to fund the roadway's widening. He elaborated on the process by which projects were placed on the CMP List and on the overall List of Priority Projects (LOPP) and subsequently clarified the sources of funding for the various lists on the LOPP.

Vice Mayor Caraballo commented on the conflict created by having the responsibility of addressing transportation needs in a timely manner while being obligated to leave some issues unmitigated so that they might remain a high priority for long-term planning. Responding to her question, Mr. Buchwald explained how CMP needs were identified, naming the local agency personnel who participated in the process. He then noted that more funding could be allocated toward the CMP if the Board deemed it necessary.

In response to Mayor Hudson's question, Mr. Infanti clarified the improvements recommended for Oleander Avenue between Bell Avenue and Farmers Market Road. Mayor Hudson and Chairman Dzadovsky commented on the corridor's recent increase in commercial activity.

Mayor Hudson commended the improvements suggested for 29th Street, citing the need to improve the safety conditions of the corridor in response to increased truck traffic and reports of drag racing, especially given the proximity of Chester A. Moore Elementary School. Mr. Infanti noted that the roadway would be added to the corridor monitoring program and then elaborated on the traffic calming strategies being considered for implementation.

In answer to Vice Mayor Caraballo's question, Mr. Buchwald described how FDOT programmed projects from the CMP list, explaining that FDOT preferred to allocate at least $300,000 per project for the sake of efficiency in the administration of Federally-funded projects. He then emphasized the flexibility of the list as well as that of the project parameters, noting that the scope of the 29th Street project could be expanded so that it exceeded the minimum cost threshold. Vice Mayor Caraballo suggested that the 29th Street project be thus expanded and then repositioned as the second priority on the CMP list. Mr. Kelly commended the working relationship of the various jurisdictions represented at the meeting.

Mr. Kelly initiated a discussion regarding congestion on the segment of U.S. Highway 1 extending from southern Port St. Lucie to the Martin

County line, recounting a past natural gas leak incident on the corridor that had prevented vehicles from moving for several hours. Chairman Dzadovsky and Mr. Buchwald explained that the upcoming U.S. Highway 1 Corridor Congestion Study would document the issues on the roadway and then propose potential solutions that might subsequently be prioritized and programmed. In answer to Vice Mayor Caraballo's questions, Mr. Buchwald explained that FDOT's analysis of the corridor's traffic data had not demonstrated a need for congestion mitigation. He indicated that the upcoming Study would consider more holistic solutions than just widening, including the expansion of parallel routes like Lennard Road, and noted the Study's timeline of approximately six months.

* MOTION by Vice Mayor Caraballo to adopt the CMP Major Update, with the condition that the 29th Street project be expanded in scope and repositioned as the second priority on the CMP list of needs.

** SECONDED by Mayor Hudson Carried UNANIMOUSLY

10. Discussion Items

10a. Transportation Asset/Service Vulnerability Assessment Update: A presentation on the development of the St. Lucie County Community Resilience Plan.

Mr. Buchwald introduced Ms. Torres, and she recounted the history of the TPO's involvement in the county-wide efforts to plan for the impacts of climate change and natural disasters, explaining that several grants had been received for the purpose of assessing and mitigating those impacts. She invited Ms. Bogan to provide an update on the Vulnerability Assessments and Regional Resilience Plan, and Ms. Bogan began with an explanation of community resilience and resilience planning. She identified the agency partners participating in the Resilience Steering Committee, noted the funding sources for the planning efforts, and provided several examples of environmental stressors. Ms. Vince continued the presentation with an overview of the project team and project objectives. She explained the types of facilities and resources considered as critical assets and then presented a series of statistics demonstrating the potential impacts of environmental stressors on those assets. Ms. Vince identified the stakeholder engagement efforts to be undertaken as part of the Assessment, outlined how the Assessment would lead to the St. Lucie Regional Resilience Plan, described possible adaptation strategies, and concluded with the project schedule.

Chairman Dzadovsky initiated a discussion regarding the challenge of stormwater management given the robust level of development in southeastern Florida. Ms. Vince reported that a Florida statute had taken effect the previous month requiring new developments to hold more water on their properties and adhere to stricter water quality standards. She reported on her team's close coordination with the South Florida Water Management District (SFWMD) and indicated that Tetra Tech was developing the County's Stormwater Master Plan. Ms. Bogan elaborated on the team's coordination with SFWMD regarding the Flood Protection Level of Service Study and assured the members that she would be consulting them regularly for input as the process continued.

In response to Vice Mayor Caraballo's question, Ms. Bogan explained how the Resilient Florida program funding was allocated, noting that a project could only be funded by the program if a vulnerability assessment had documented the relevant facility as being in danger from the impacts of environmental stressors. She described coming changes to the program, estimated the amount of funding available for individual projects, and clarified the funding match requirements. Vice Mayor Caraballo reported the City of Port St. Lucie's recent adoption of a 30-year stormwater plan and her expectation that several projects might be identified in connection with that effort. She then commented on the need to advocate for more resilience funding at the State and Federal levels.

Mayor Hudson commented that local higher education institutions and environmental groups regularly produced data that might be useful for the Assessment team and offered to provide Ms. Bogan with the relevant contact information.

Responding to Mr. Kelly's question, Ms. Bogan recounted the history of the resilience planning initiative. Mr. Kelly noted the potential impacts of environmental stressors on the U.S. Highway 1 corridor and commended the efforts to improve local stormwater management. Ms. Bogan commented on the benefits of relocating the Fort Pierce Utility Authority water treatment facility off of South Hutchinson Island.

11. FDOT Comments – None.

12. Recommendations/Comments by Members – Mayor Martin requested that FDOT coordinate with the contractor involved with the widening of Port St. Lucie Boulevard to ensure that the project was completed as quickly as possible. She relayed the frustrations voiced by

residents regarding the delayed project schedule and noted the likelihood of there being no break between the conclusion of the present phase of widening and the start of the next phase. Mr. Buchwald suggested that FDOT District 4 staff be requested to appear at the next TPO Board Meeting to discuss her concerns, and Mr. Norat indicated that he would make the appropriate arrangements.

13. TPO Staff Comments – Mr. Buchwald announced that construction had recently begun on the segment of the Florida Shared-Use Nonmotorized (SUN) Trail between Kitterman Road and the Savannas Recreation Area. He provided details on the project's funding and parameters, thanked the agency partners involved with its development, and reported that several communities located alongside the trail had inquired about the possibility of implementing connections to it. He commented on the funding for additional SUN Trail facilities that had been programmed for the coming years and noted that the next meeting agenda would include a presentation on the Preferred Alternative for the Port of Fort Pierce Connector segment.

    Chairman Dzadovsky remarked on the length of time typically required for trail project development.

14. Next Meeting: The next St. Lucie TPO Board Meeting is a regular meeting scheduled for 2:00 pm on Wednesday, October 2, 2024.

15. Adjourn – The meeting was adjourned at 4:10 pm.

Respectfully submitted:

_____
Rachel Harrison
Recording Specialist

Approved by:

_____
Commissioner Chris Dzadovsky
Chairman

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

AGENDA ITEM SUMMARY

Board/Committee:	St. Lucie TPO Board
Meeting Date:	October 2, 2024
Item Number:	8a
Item Title:	Appointments to the Bicycle-Pedestrian Advisory Committee (BPAC) and Local Coordinating Board for the Transportation Disadvantaged (LCB)
Item Origination:	Unified Planning Work Program (UPWP)
UPWP References:	Task 3.8- Transportation Disadvantaged Program Task 5.1- Public Involvement, Education & Outreach
Requested Action:	Appoint or do not appoint.
Staff Recommendation:	It is recommended that Mr. Theodore Agnew be appointed to the BPAC and the LCB to fill vacancies.

Attachment
- Application

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

APPLICATION FOR SERVING ON COMMITTEES/BOARD

1. Name Theodore Agnew
2. Home or Mobile Phone [redacted] 3. Email Address TheodoreJAgnew@yahoo.com
4. Home Address 743 SE Chalaupe Ave. PSL, 34983
5. How long have you lived at this location? 2016
6. Business Address (optional) _____
7. Business Phone (optional) _____
8. Are you employed by a government agency? Yes_____ No X
9. Do you now serve on a government committee or board? Yes_____ No X
10. If Yes, which one(s)? _____
11. Brief summary of your education College
12. Brief summary of your experience Lighthouse for the Blind
National Federation of the Blind
13. Please select each St. Lucie Transportation Planning Organization (TPO) Board or Committee you are interested in serving on (more than one may be selected):
Treasure Coast Scenic Highway Committee (TCSHC)_____
Transportation Disadvantaged Local Coordinating Board (LCB) ✓
Citizens Advisory Committee (CAC)_____
Bicycle-Pedestrian Advisory Committee (BPAC) ✓
14. May your application be submitted to the TPO Board whenever vacancies occur on the selected Board/Committee(s) until you are appointed? Yes ✓ No_____
15. Will you be able to attend quarterly LCB meetings, CAC meetings every other month, or BPAC meetings every other month? Yes ✓ No_____

SIGNATURE Theodore Agnew DATE 8/14/2024

Submit completed application by mail or email to:

MAIL: St. Lucie Transportation Planning Organization
466 SW Port St. Lucie Boulevard, Suite 111
Port St. Lucie, FL 34953

EMAIL: TPOAdmin@stlucieco.org

Note: Application is effective for two years from the date of completion

TITLE VI STATEMENT: The St. Lucie TPO satisfies the requirements of various nondiscrimination laws and regulations including Title VI of the Civil Rights Act of 1964. Public participation is welcomed without regard to race, color, national origin, age, sex, religion, disability, income, or family status. Persons wishing to express their concerns about nondiscrimination should contact Marceia Lathou, the Title VI/ADA Coordinator of the St. Lucie TPO, at 772-462-1593 or via email at lathoum@stlucieco.org.

Crèole: Si ou ta rinmin recevoua information sa en crèole si l bous plait rèlè 772-462-1777.

Español: Si usted desea recibir esta informaciòn en español, por favor llame al 772-462-1777.

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

AGENDA ITEM SUMMARY

Board/Committee:	St. Lucie TPO Board
Meeting Date:	October 2, 2024
Item Number:	8b
Item Title:	2025 Traffic Count Data Management System (TCDMS) Scope of Services
Item Origination:	Unified Planning Work Program (UPWP)
UPWP Reference:	Task 2.3 - Traffic Count Program Management
Requested Action:	Approve or do not approve
Staff Recommendation:	Based on the scope and cost being consistent with Task 2.3 of the UPWP, it is recommended that the 2025 Traffic Count Data Management System (TCDMS) Scope of Services be approved.

Attachments

- Staff Report
- 2025 TCDMS Scope of Services

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

MEMORANDUM

TO: St. Lucie TPO Board

THROUGH: Peter Buchwald
Executive Director

FROM: Yi Ding
Transportation Systems Manager

DATE: September 25, 2024

SUBJECT: 2025 Traffic Count Data Management System (TCDMS) Scope of Services

---

BACKGROUND

A traffic count program is necessary to monitor and analyze the performance of roadway segments for transportation planning purposes. For a number of years, the TPO has collected and managed the traffic count program through the TCDMS and acted as a clearinghouse for the collection and management of all of the traffic counts performed in the TPO area by the cities, St. Lucie County, and the Florida Department of Transportation.

The FY 2024-25 - FY 2025-26 Unified Planning Work Program (UPWP) for the St. Lucie TPO includes Task 2.3, *Traffic Count Program Management*. The purpose of Task 2.3 is to continue to collect, monitor, and manage the highest quality of current traffic data on the public roadway network within the St. Lucie TPO area and provide the data in a publicly-accessible, user-friendly format.

The web-based TCDMS was developed to identify the roadway traffic volumes and levels of service for transportation planning, monitoring, analysis, and managing purposes. The TCDMS has been used successfully for the processing, maintaining, and delivering of the traffic count information to the public and private sectors since its inception.

ANALYSIS

The attached Scope of Services for the 2025 Traffic Count Data Management System (TCDMS) was prepared by Benesch, one of the TPO's General Planning Consultants. Benesch has been providing the traffic count collection and TCDMS maintenance services since the inception of the program.

Benesch proposes a cost of $44,993 for the 2025 Traffic Counts which includes 94 volume counts and 6 classification counts as specified in the attachment. The proposed cost is within the UPWP task budget.

RECOMMENDATION

Based on the scope and cost being consistent with Task 2.3 of the UPWP, it is recommended that the 2025 Traffic Count Data Management System (TCDMS) Scope of Services be approved.

ST. LUCIE COUNTY

TRAFFIC COUNTS PROGRAM

2025 TRAFFIC COUNT DATA MANAGEMENT SYSTEM

SCOPE OF SERVICES

Prepared For:
St. Lucie Transportation Planning Organization
Coco Vista Center
466 SW Port St. Lucie Boulevard
Port St. Lucie, FL 34953
ph (772) 462-1593

Prepared By:

benesch

100 W. Cypress Creek Road, Suite 980
Fort Lauderdale, FL 33309
ph (954) 641-5680

August 31, 2024

INTRODUCTION

Previously, Benesch implemented the Traffic Counts Data Management System (TCDMS) for the St. Lucie TPO. As part of the on-going traffic counts program and pursuant to Task 2.3 – Traffic Count Program Management of the St. Lucie TPO 2024/25 – 2025/26 UPWP, the St. Lucie Transportation Planning Organization (TPO) plans to collect traffic counts on an annual basis.

This estimate includes database updates (identifying and removing possible locations counted by FDOT) or changes to the count estimation and report formatting functions. Also included is database clean-up and formatting based upon roadway network changes. In addition, changes in the interactive mapping tool and Level-of-Service (LOS) report format will be considered and made as agreed upon by the CONSULTANT and the MPO Staff. More specifically, this effort will include:

- Verifying and updating, as necessary, road segmentation, the LOS standard, service capacities.
- Reviewing count locations and adding new roads, if needed.

This scope of service outlines the necessary tasks to collect, process, and Q/C the 2025 traffic counts. The 2025 traffic counts are a continuation of the program developed by the St Lucie TPO to collect traffic counts in St Lucie County.

Benesch will utilize TCDMS to Q/C the 2025 traffic counts and, once a traffic count is considered acceptable, upload these traffic counts into the TCDMS web application. As part of the Q/C process, Benesch will coordinate with the TPO to ensure the TPO is aware of any “failed” counts that may need to be redone.

This will be accomplished through the following sub-tasks:

Task 1 Administration and Coordination with Traffic Count Data Collection Subconsultant:

Benesch will contract with National Data & Surveying Services, Inc. to collect traffic counts (as has been done in past years). Scheduling of counts, recounts, and supervision as well as administration of the subconsultant contract will be performed by Benesch as part of this subtask. This task also includes all other administrative and coordination activities with the St. Lucie TPO.

Task 2 Traffic Count Data Collection: Traffic count data collection is to be performed at 86 locations, consistent with the established traffic count procedures as identified in Attachment 1. Specific locations will be approved by the TPO. At each location, the machine count data will be collected for a period of 48 hours during a "typical" weekday (Tuesday, Wednesday, and Thursday). Special care will be taken to ensure the counts are not performed during periods of non-typical vehicular patterns (i.e. when school is out, holidays, etc.). As in the past collection of traffic counts, it's necessary to note that the count locations may need to be adjusted/revised during the data collection process. Such adjustments will be documented for reference and future use.

Task 3 Update Database; Q/C Traffic Counts; Generate Reports: As Benesch receives 2025 counts from the subconsultant, the counts will be uploaded into the TCDMS web application by Benesch's Database Administrator. Using the TCDMS Web Application, Benesch staff will process, review, and Q/C each individual traffic count within five (5) business days of receiving the count and will notify the subconsultant representative via email of any traffic counts which do not meet specifications and need to be recounted. A review of the TCDMS for completeness and a check of calculations will be performed. Benesch will generate and produce a level-of-service report for posting on the TPO's web site.

Budget:

The services described herein shall be completed at a unit cost for field work by count type and time and materials all other support services for a not to exceed cost of $44,992.52 based on the effort estimate included herein as Attachment 1. Invoices shall be based on percent completion of work accomplished and as documented in the project status report.

Schedule:

The tasks shall be completed within four (4) months of Notice-to-Proceed.

2025 Traffic Counts

	ACTIVITY	Principal-in-Charge $ 269.00	Project Manager $ 229.84	GIS Developer $ 153.45	Senior Planner $ 127.44	Senior Engineer $ 196.95	Engineer $ 102.86	GIS Analyst $ 90.56	Planner $ 81.34	Engineer Tech. $ 57.35	Admin/ Clerical $ 68.29	TOTAL HOURS	COST BY ACTIVITY
	Process and Q/C 2025 Counts; Maintain and Support System	8	8	40	40	8	0	13	37	40	6	200	$ 23,692.52
Task 1	**Administration and Coordination with Traffic Count Data Collection subconsultant:** It is anticipated Benesch will contract with National Data & Surveying Serveices, Inc. to collect traffic counts. Scheduling of counts, recounts, and supervision as well as administration of the subconsultant contract will be performed by Benesch as part of this subtask.	4	4		4			2			2	16	$ 2,822.82
Task 2	**Traffic Count Data Collection:** Traffic count data collection is to be performed at 100 locations, consistent with the established traffic count procedures. Specific locations will be identified and approved by the TPO. At each location, the machine count data will be collected for a period of 48 hours during a "typical" weekday (Tuesday, Wednesday, and Thursday). Special care will be taken to ensure the counts are not performed during periods of non-typical vehicular patterns (i.e. when school is out, holidays, etc.). As in the past collection of traffic counts, it's necessary to note that the count locations may need to be adjusted/revised during the data collection process. Such adjustments will be documented for reference and future use.				12				8			20	$ 2,180.00
Task 3	**Upload and Q/C Traffic Counts:** As Benesch receives 2025 counts from the subconsultant, the counts will be uploaded into the TCDMS web application by Benesch's Database Administrator. Using the TCDMS Web Application, Benesch staff will process, review, and Q/C each individual traffic count within five (5) business days of receiving the count and will notify the subconsultant representative via email of any traffic counts which do not meet specifications and need to be recounted.	4	4	40	24	8		11	29	40	4	164	$ 18,689.70
Total Hours:		8	8	40	40	8	0	13	37	40	6	200	
Total Labor:		$ 2,152	$ 1,839	$ 6,138	$ 5,098	$ 1,576	$ -	$ 1,177	$ 3,010	$ 2,294	$ 410	$ 23,693	$ 23,692.52

Direct Expenses	Units	Rate	Total
2025 Traffic Counts Data Collection - Volume Counts	94	$210	$ 19,740
2025 Traffic Counts Data Collection - Classification Counts	6	$260	$ 1,560
Total	**100**		**$ 21,300**

Total Labor:	**$ 23,692.52**
Total Expenses:	**$ 21,300.00**
TOTAL COSTS:	**$ 44,992.52**

Summary of 2025 Traffic Count Selection Criteria and Counts

Count Category	Criteria	Volume Counts	Class Counts	Total Counts
1	V/C ratio greater than 0.95	24	1	25
2	V/C ratio greater than 0.50 and last count 2022 or older	14	0	14
3	Discretionary - consistency with above, **new station** or segment	40	0	40
4	Older than 5 years (2020 or older)	1	0	1
5	V/C ratio greater than 0.30 and last count 2022 or older	15	5	20
	Total All Counts	94	6	100

St. Lucie TPO - 2025 Traffic Count Locations

STATION ID	LOCATION	JURISDICTION	DAILY CAPACITY	AADT	2025 EST AADT	CLASS COUNT	LAST YEAR COUNTED	V/C	COUNT CATEGORY
625	BECKER RD E. OF INTERSTATE 95	PORT SAINT LUCIE	15200	28500	28500	NO	2024	1.875	1
718	VILLAGE PKWY 870 FEET SOUTH OF TRADITION PKWY	COUNTY	15200	26500	26500	NO	2024	1.743	1
134	MIDWAY RD 560 FEET WEST OF SELVITZ RD	PORT SAINT LUCIE	15200	25500	25500	NO	2024	1.678	1
130	MIDWAY RD 750 FEET WEST OF SUNRISE BLVD	COUNTY	15200	25000	25000	NO	2024	1.645	1
658	CROSSTOWN PKWY 345 FEET WEST OF FLORESTA DR	PORT SAINT LUCIE	15200	24500	24500	YES	2024	1.612	1
228	MIDWAY RD 600 FEET WEST OF EAST TORINO BLVD	PORT SAINT LUCIE	15200	23000	23000	NO	2024	1.513	1
132	MIDWAY RD 685 FEET WEST OF 25TH ST	COUNTY	15200	22500	22500	NO	2024	1.480	1
626	BECKER RD 680 FEET EAST OF SAVONA BLVD	PORT SAINT LUCIE	15200	22500	22500	NO	2024	1.480	1
628	BECKER RD W. OF SOUTHBEND BLVD	PORT SAINT LUCIE	15200	21000	21000	NO	2024	1.382	1
234	CALIFORNIA BLVD 0.2 MILES SOUTH OF ST LUCIE WEST BLVD	PORT SAINT LUCIE	15200	20500	20500	NO	2024	1.349	1
712	TRADITION PKWY E. VILLAGE PKWY	COUNTY	33200	43500	43500	NO	2024	1.310	1
242	MIDWAY RD 365 FEET WEST OF US-1	COUNTY	15200	19000	19000	NO	2024	1.250	1
337	FLORESTA DR/SOUTHBEND BLVD S OF FLORESTA DR	PORT SAINT LUCIE	15200	14500	18500	NO	2023	1.217	1
627	BECKER RD E. OF DARWIN BLVD	PORT SAINT LUCIE	15200	18500	18500	NO	2024	1.217	1
318	ST LUCIE WEST BLV E. OF PEACOCK LOOP	PORT SAINT LUCIE	33200	32500	39500	NO	2023	1.190	1
302	BECKER RD 800 FEET EAST OF PT ST LUCIE BLVD	PORT SAINT LUCIE	15200	17500	17500	NO	2024	1.151	1
328	WALTON RD 560 FEET EAST OF VILLAGE GREEN DR	PORT SAINT LUCIE	15200	17500	17500	NO	2024	1.151	1
636	CALIFORNIA BLVD 400 FEET SOUTH OF CROSSTOWN PKWY	PORT SAINT LUCIE	15200	17500	17500	NO	2024	1.151	1
232	CASHMERE BLVD 0.3 MILES SOUTH OF ST LUCIE WEST BLVD	PORT SAINT LUCIE	15200	16500	16500	NO	2024	1.086	1
317	FLORESTA DR 530 FEET SOUTH OF PT ST LUCIE BLVD	PORT SAINT LUCIE	15200	16500	16500	NO	2024	1.086	1
697	PORT ST LUCIE BLVD SW. OF GATLIN BLVD	PORT SAINT LUCIE	33200	31500	35000	NO	2021	1.054	1
237	EAST TORINO PKWY 640 FEET SOUTH OF MIDWAY RD	PORT SAINT LUCIE	15200	16000	16000	NO	2024	1.053	1
152	ST LUCIE WEST BLV W. OF I-95 RAMP	PORT SAINT LUCIE	15200	15500	15500	NO	2024	1.020	1
148	PRIMA VISTA BLVD 260 FEET WEST OF RIO MAR DR	PORT SAINT LUCIE	33200	27500	33000	NO	2023	0.994	1
231	CASHMERE BLVD 960 FEET NORTH OF ST LUCIE WEST BLVD	PORT SAINT LUCIE	15200	15000	15000	NO	2024	0.987	1
315	FLORESTA DR 720 FEET NORTH OF PT ST LUCIE BLVD	PORT SAINT LUCIE	15200	9800	14000	NO	2022	0.921	2
301	AIROSO BLVD 0.25 MILES NORTH OF FLORESTA DR	PORT SAINT LUCIE	33200	20000	22500	NO	2022	0.678	2
311	DEL RIO BLVD 290 FEET NORTH OF PT ST LUCIE BLVD	PORT SAINT LUCIE	15200	9200	9800	NO	2022	0.645	2
646	COMMERCE CENTER DR N. OF RESERVE BLVD	PORT SAINT LUCIE	15200	8700	9400	NO	2022	0.618	2
325	LENNARD RD N. OF MARIPOSA AVE	PORT SAINT LUCIE	33200	15000	20000	NO	2022	0.602	2
233	CALIFORNIA BLVD 0.25 MILES NORTH OF ST LUCIE WEST BLVD	PORT SAINT LUCIE	15200	8300	9000	NO	2022	0.592	2
713	TULIP BLVD 0.25 MILES EAST OF PT ST LUCIE BLVD	PORT SAINT LUCIE	15200	8400	8900	NO	2022	0.586	2
305	BAYSHORE BLVD 290 FEET NORTH OF PRIMA VISTA BLVD	PORT SAINT LUCIE	33200	17000	19000	NO	2022	0.572	2
245	WESTMORELAND BLVD SE. OF MORNINGSIDE BL	PORT SAINT LUCIE	16000	8000	9100	NO	2022	0.569	2
303	AIROSO BLVD 0.25 MILES NORTH OF PT ST LUCIE BLVD	PORT SAINT LUCIE	33200	16000	17500	NO	2022	0.527	2
322	TIFFANY AVE E. OF US 1 SOUTH	PORT SAINT LUCIE	33200	12500	17000	NO	2022	0.512	2

St. Lucie TPO - 2025 Traffic Count Locations									
STATION ID	LOCATION	JURISDICTION	DAILY CAPACITY	AADT	2025 EST AADT	CLASS COUNT	LAST YEAR COUNTED	V/C	COUNT CATEGORY
109	FLORESTA DR SE. OF PRIMA VISTA BL	PORT SAINT LUCIE	15200	11000	11500	NO	2021	0.757	2
107	FLORESTA DR 875 FEET EAST OF AIROSO BLVD	PORT SAINT LUCIE	15200	9000	10500	NO	2021	0.691	2
639	CAMEO BLVD 880 FEET SOUTH OF CROSSTOWN PKWY	PORT SAINT LUCIE	15200	9900	10500	NO	2021	0.691	2
	GATLIN BLVD, W OF ROSSER						NEW		3
	GATLIN BLVD, W OF SAVONA						NEW		3
	GATLIN BLVD, W OF PSL BLVD						NEW		3
	PORT ST LUCIE BLVD, N OF BECKER						NEW		3
	PORT ST LUCIE BLVD, S OF TULIP						NEW		3
	PORT ST LUCIE BLVD, W OF CAMEO						NEW		3
	ROSSER BLVD, S OF GATLIN						NEW		3
	PAAR DR, W OF PSL BLVD						NEW		3
	ST LUCIE WEST BLVD, E OF COUNTRY CLUB						NEW		3
	PEACOCK BLVD, N OF ST LUCIE WEST						NEW		3
	BAYSHORE BLVD, S OF CROSSTOWN						NEW		3
	BAYSHORE BLVD, W OF ST JAMES						NEW		3
	SELVITZ RD, N OF BAYSHORE						NEW		3
	SELVITZ RD, S OF MIDWAY						NEW		3
	MIDWAY RD, W OF MCCARTY						NEW		3
	MIDWAY RD, W OF I-95 RAMPS						NEW		3
	MIDWAY RD, W OF GLADES CUTOFF						NEW		3
	MIDWAY RD, E OF US 1						NEW		3
	MIDWAY RD, E OF INDIAN RIVER						NEW		3
	ORANGE AVE, W OF KINGS						NEW		3
	ORANGE AVE, E OF US 1						NEW		3
	INDIAN RIVER DR, S OF SEAWAY						NEW		3
	INDIAN RIVER DR, N OF CITRUS						NEW		3
	33RD ST, S OF ORANGE						NEW		3
	CITRUS AVE, E OF US 1						NEW		3
	AVENUE A, W OF US 1						NEW		3
	AVENUE A, E OF US 1						NEW		3
	CORTEZ BLVD, W OF 25TH ST						NEW		3
	OLD DIXIE HWY, N OF N CAUSEWAY						NEW		3
	OLD DIXIE HWY, N OF INDRIO						NEW		3
	ANGLE RD, W OF JOHNSTON						NEW		3
	INDRIO RD, W OF I-95 RAMPS						NEW		3
	DELAWARE RD, E OF 25TH ST						NEW		3

St. Lucie TPO - 2025 Traffic Count Locations

STATION ID	LOCATION	JURISDICTION	DAILY CAPACITY	AADT	2025 EST AADT	CLASS COUNT	LAST YEAR COUNTED	V/C	COUNT CATEGORY
	GLADES CUT-OFF RD, W OF RANGE LINE						NEW		3
	29TH ST, N OF AVENUE D						NEW		3
	GILSON RD, N OF BECKER						NEW		3
	BECKER RD, W OF GILSON						NEW		3
	SOUTHBEND BLVD, N OF BECKER RD						NEW		3
737	RANGE LINE RD N OF DISCOVERY WAY	PORT SAINT LUCIE	15930	2100	2100	NO	2024	0.132	3
738	RANGE LINE RD S OF DISCOVERY WAY	PORT SAINT LUCIE	15930	2100	2100	NO	2024	0.132	3
173	EDWARDS RD 245 FEET WEST OF US-1	FORT PIERCE	33200	10500	9800	NO	2019	0.295	4
106	EASY ST 800 FEET EAST OF US-1	COUNTY	15200	5400	7200	NO	2021	0.474	5
329	VETERANS MEMORIAL PKWY S. OF LYNGATE DR	PORT SAINT LUCIE	33200	13000	15500	NO	2022	0.467	5
724	CALIFORNIA BLVD S OF PEACOCK BLVD	COUNTY	15930	6600	7200	NO	2022	0.452	5
657	CROSSTOWN PKWY W. OF OCEAN LN	PORT SAINT LUCIE	50300	20500	22000	YES	2021	0.437	5
624	BECKER RD W. OF INTERSTATE 95	COUNTY	15200	4700	6400	NO	2021	0.421	5
670	HARTMAN RD 845 FEET NORTH OF OKEECHOBEE RD	FORT PIERCE	15200	6000	6300	NO	2021	0.414	5
141	OLEANDER AVE 440 FEET SOUTH OF MIDWAY RD	COUNTY	15200	5500	6200	YES	2021	0.408	5
156	ST LUCIE BLVD 775 FEET EAST OF KEEN RD	COUNTY	15200	6700	6100	NO	2021	0.401	5
324	WALTON RD 460 FEET WEST OF INDIAN RIVER DR	PORT SAINT LUCIE	15200	6900	6000	NO	2022	0.395	5
650	CROSSTOWN PKWY E. OF VISCONTI WAY	PORT SAINT LUCIE	50300	15500	19000	YES	2021	0.378	5
660	DEL RIO BLVD 430 FEET EAST OF CASHMERE BLVD	PORT SAINT LUCIE	15200	4300	5700	NO	2022	0.375	5
693	PEACOCK BLVD W. OF CASHMERE BLVD	PORT SAINT LUCIE	15200	4900	5600	NO	2021	0.368	5
119	GLADES CUT-OFF RD 0.5 MILES SOUTH-WEST OF COMMERCIAL CENTER D	PORT SAINT LUCIE	15200	6800	5400	NO	2022	0.355	5
123	INDIAN RIVER DR 350 FEET NORTH OF MIDWAY RD	COUNTY	15200	4200	5400	YES	2021	0.355	5
144	ORANGE AVE W. OF SHINN RD	COUNTY	15200	4600	5300	NO	2021	0.349	5
656	CROSSTOWN PKWY E. OF AIROSO BLVD	PORT SAINT LUCIE	50300	17500	17500	YES	2021	0.348	5
661	DEL RIO BLVD 530 FEET WEST OF CASHMERE BLVD	PORT SAINT LUCIE	15200	4900	5200	NO	2021	0.342	5
238	W TORINO PKWY S. OF HANN DR	PORT SAINT LUCIE	15200	4700	5100	NO	2021	0.336	5
707	ST JAMES BLVD 500 FEET EAST OF SELVITZ RD	PORT SAINT LUCIE	15200	4900	5100	NO	2021	0.336	5
125	INDIAN RIVER DR 300 FEET NORTH OF WALTON RD	PORT SAINT LUCIE	15200	5300	5000	NO	2021	0.329	5

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

AGENDA ITEM SUMMARY

Board/Committee:	St. Lucie TPO Board
Meeting Date:	October 2, 2024
Item Number:	8c
Item Title:	Memorandum to the Interlocal Agreement for Creation of the Metropolitan Planning Organization
Item Origination:	St. Lucie TPO and Council on Aging of St. Lucie, Inc. (COASL)
UPWP Reference:	Task 1.1 – Program Management
Requested Action:	Approve or do not approve.
Staff Recommendation:	Based on the withdrawal of the COASL from the TPO Board being completed in accordance with the Interlocal Agreement, it is recommended that the Memorandum to the Interlocal Agreement for Creation of the Metropolitan Planning Organization be approved.

Attachments

- Staff Report
- Memorandum to the Interlocal Agreement for Creation of the Metropolitan Planning Organization
- Interlocal Agreement for Creation of the Metropolitan Planning Organization Excerpt

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

MEMORANDUM

TO: St. Lucie TPO Board

FROM: Peter Buchwald
Executive Director

DATE: September 25, 2024

SUBJECT: Memorandum to the Interlocal Agreement for Creation of the Metropolitan Planning Organization

---

BACKGROUND

The withdrawal of the Council on Aging of St. Lucie, Inc. (COASL) from the St. Lucie TPO Board is the culmination of a series of discussions and actions by the Board since August 2020 after the contracted operator of the County's public transportation system was changed from Community Transit/COASL to MV Transportation. The Memorandum to the Interlocal Agreement for Creation of the Metropolitan Planning Organization is attached for approval by the TPO Board which formalizes the withdrawal, in accordance with the Interlocal Agreement, of the COASL from the TPO Board. The Memorandum has been signed by the COASL.

ANALYSIS

The actions of the TPO Board since August 2020 include the Decennial Apportionment Review in September 2023 resulting in the TPO requesting that the COASL withdraw its membership from the TPO Board in the letter attached to the Memorandum as "Attachment A". The Review also resulted in the preparation and submittal to the Governor of an Apportionment Plan, attached to the Memorandum as "Attachment B", in accordance with Florida Statute 339.175(4) and in the format requested by the Florida Department of Transportation (FDOT).

In accordance with Section 7.03(b) of the Interlocal Agreement (excerpt attached), the COASL provided written notice to the TPO to withdraw its membership from the Interlocal Agreement at least 90 days ago which is

attached to the Memorandum as "Attachment C". Upon execution of the Memorandum, the list of member governments that are signatories to the Interlocal Agreement is altered, and membership on the TPO Board consists of the following:

- Four (4) St. Lucie County Board of County Commissioners
- Four (4) City of Port St. Lucie Councilmembers
- Two (2) City of Fort Pierce Commissioners
- One (1) St. Lucie County School Board Member

As specified by the Interlocal Agreement, the above membership was concurred by the Governor, after its recommendation by FDOT, as summarized in the letter attached to the Memorandum as "Attachment D". In accordance with the Interlocal Agreement, the executed Memorandum will be filed in the Circuit Court of the county in which each party to the Interlocal Agreement is located, namely St. Lucie and Broward Counties. It should be noted that the Martin Metropolitan Planning Organization withdrew from the Interlocal Agreement in 2014 and is no longer a party to the Agreement.

After its withdrawal from the TPO Board, the COASL will continue its participation in the TPO transportation planning process with its voting membership on the TPO Technical Advisory Committee and the St. Lucie Local Coordinating Board for the Transportation Disadvantaged.

RECOMMENDATION

Based on the withdrawal of the COASL from the TPO Board being completed in accordance with the Interlocal Agreement, it is recommended that the Memorandum to the Interlocal Agreement for Creation of the Metropolitan Planning Organization be approved.

MEMORANDUM TO THE
INTERLOCAL AGREEMENT FOR CREATION OF THE
METROPOLITAN PLANNING ORGANIZATION

THIS MEMORANDUM, dated the _____ day of _____, 2024, **TO THE INTERLOCAL AGREEMENT FOR CREATION OF THE METROPOLITAN PLANNING ORGANIZATION,** hereinafter referred to as the "Creation Agreement", is between the **ST. LUCIE TRANSPORTATION PLANNING ORGANIZATION**, hereinafter referred to as the "TPO", and the **COUNCIL ON AGING OF ST. LUCIE, INC.,** hereinafter referred to as the "COASL".

WHEREAS, on September 13, 2006, the COASL became a party to the Creation Agreement to participate as an operator of a major mode of transportation in the development of transportation plans and programs for the metropolitan area, known as the Port St. Lucie, Florida Urban Area, through a comprehensive, cooperative, and continuing metropolitan transportation planning process; and,

WHEREAS, the Creation Agreement provides for the terms and conditions of the establishment of the TPO pursuant to State and Federal regulations, including the withdrawal of a party to the Creation Agreement; and,

WHEREAS, on September 6, 2023, as part of the TPO's Decennial Apportionment Review and preparation of an Apportionment Plan in accordance with Florida Statute 339.175(4), the TPO moved to request that COASL withdraw its membership from the Creation Agreement in accordance with Section 7.03(b) of the Creation Agreement as summarized in the letter dated September 29, 2023, attached hereto as "Attachment A"; and,

WHEREAS, the TPO Apportionment Plan, dated November 14, 2023, which includes the TPO's withdrawal request to COASL, was submitted to the Florida Department of Transportation, attached hereto as "Attachment B"; and,

WHEREAS, in accordance with Section 7.03(b) of the Creation Agreement, the COASL provided notice to the TPO to withdraw its membership from the Creation Agreement as summarized in the letter, dated February 1, 2024, attached hereto as "Attachment C"; and,

WHEREAS, the Governor of the State of Florida formally concurred with the Florida Department of Transportation's recommendation that the TPO's proposed Apportionment Plan meets the requirements of Florida Statute 339.175 and Federal Regulations 23 CFR 450.312(a) as summarized in the letter dated August 8, 2024, attached hereto as "Attachment D".

NOW, THEREFORE, in consideration of the mutual covenants, promises, and representations in the Creation Agreement, the parties desiring to be legally bound, hereby agree to the following:

1. The COASL has withdrawn from the Creation Agreement in accordance with Section 7.03(b) of the Creation Agreement and is no longer a member of the TPO Board effective as of the date of this Memorandum.

2. Membership to the Creation Agreement and TPO Board is now amended to consist of the following:

   A. Four (4) St. Lucie County Board of County Commissioners
   B. Four (4) City of Port St. Lucie Councilmembers
   C. Two (2) City of Fort Pierce Commissioners
   D. One (1) St. Lucie County School Board Member

3. All other terms and conditions of the Creation Agreement, as previously amended, shall remain in full force and effect.

4. This Memorandum shall be filed in the Office of the Clerk of the Circuit Court of St. Lucie County.

IN WITNESS WHEREOF, the undersigned parties have executed this Memorandum on behalf of the referenced legal entities.

ATTEST:

_____
Operations Administrator
Kyle Bowman

ST. LUCIE TRANSPORTATION PLANNING ORGANIZATION

BY: _____
Chairman
Chris Dzadovsky

DATE: _____

APPROVED AS TO FORM AND CORRECTNESS:

BY: _____
TPO/Assistant County Attorney
Ciara Forbes

WITNESS:

COUNCIL ON AGING OF ST. LUCIE, INC.

Darrell J. Drummond
Chief Executive Officer/President

DATE: 9/25/2024

Attachments
Attachment A: Withdrawal Request from TPO, dated September 29, 2023
Attachment B: TPO Apportionment Plan without Attachments, dated November 14, 2023
Attachment C: COASL Notice of Withdrawal, dated February 1, 2024
Attachment D: Governor Concurrence with Apportionment Plan, dated August 8, 2024

cc *(via hand delivery unless where noted otherwise)*:
St. Lucie TPO Board Members
Nick Mimms, Fort Pierce City Manager
Sara Hedges, Fort Pierce City Attorney
Jesus Merejo, Port St. Lucie City Manager
Margaret Carland, Port St. Lucie City Attorney
George Landry, St. Lucie County Administrator
Daniel McIntyre, St. Lucie County Attorney
Jon Prince, St. Lucie County Superintendent of Schools
Barbara Sadaka, St. Lucie County School Board Attorney
Steven Braun, FDOT District 4 Secretary (via certified mail)
Peter Buchwald, St. Lucie TPO Executive Director

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

September 29, 2023

VIA HAND DELIVERY

Mr. Darrell J. Drummond
Chief Executive Officer/President
Council on Aging of St. Lucie, Inc.
2501 SW Bayshore Boulevard
Port St. Lucie, Florida 34984

Re: Council on Aging of St. Lucie, Inc./Community Transit Membership on the St. Lucie Transportation Planning Organization Board

Dear Mr. Drummond:

As you are well aware, the Council on Aging of St. Lucie, Inc. (COASL) operated the public transportation system, which is a major mode of transportation, in St. Lucie County through COASL's Community Transit Division until July 1, 2020. As an operator of a major mode of transportation, COASL/Community Transit served as members on the TPO Board, Technical Advisory Committee (TAC), and the St. Lucie County Local Coordinating Board for the Transportation Disadvantaged (LCB). The voting membership of COASL/Community Transit on the TPO Board was facilitated by the attached *Interlocal Agreement for Creation of the Metropolitan Planning Organization* (Creation Agreement).

When MV Transportation, Inc. (MV) assumed the contract on July 1, 2020, for operating the County's public transportation system, a review was prompted of the public transportation system representation on the TPO Boards and Advisory Committees. Subsequently, from July 2020 to August 2021, at four TPO Board meetings and at a TPO Executive Committee Meeting, COASL/Community Transit's memberships on the TPO's Boards and Advisory Committees were discussed in light of MV's assumption of the operation of the County's public transportation system.

As a result of the discussions, the TPO Board postponed the consideration of COASL/Community Transit's membership on the TPO Board until its Decennial Apportionment Review. The Board also revised the TPO By-Laws, Rules, and Procedures to revise the public transportation representation on the Technical Advisory Committee (TAC) from a "Community Transit Representative" to a representative of an "Independent Public Transportation Operator" appointed by the Board and subsequently appointed Community Transit to the TAC. In addition, the TPO Board preserved COASL/Community Transit's representation on the LCB.

At its meeting on June 7, 2023, the TPO Board initiated its Decennial Apportionment Review required by Florida Statute 339.175(4) and continued the Review at its meeting on September 6, 2023, with additional discussion of the Review between the Board Meetings at the TPO Executive Committee Meeting on July 25, 2023. It was recognized during the Review that there was little proportional change among the population sizes of the local jurisdictions between the 2010 Census and the

2020 Census which solely would compel a change in the existing apportionment of the local governments on the Board. It was also recognized that while COASL/Community Transit has provided valuable input to the TPO transportation planning process throughout its many years of membership on the TPO Board, COASL/Community Transit no longer operates a major mode of transportation in St. Lucie County. Florida Statute 339.175(3)(a), which pertains to Voting Membership on Metropolitan Planning Organizations, specifies that "Voting members shall be elected officials of general-purpose local governments" but may include "an official of an agency that operates or administers a major mode of transportation".

Since COASL/Community Transit no longer operates a major mode of transportation in St. Lucie County, the public transportation system operator in the County may be represented on the TPO Board going forward by the existing St. Lucie County representatives to the Board. Therefore, the TPO Board moved at its meeting on September 6th to request that COASL/Community Transit withdraw its membership from the Board in accordance with Section 7.03(b) of the Creation Agreement. However, COASL/Community Transit will continue to be represented at the TPO through its continued participation in the TAC and LCB by which its interests may be expressed and conveyed in accordance with Florida Statute 339.175(3)(b).

It should be noted that the TPO Board did not hastily consider this difficult decision as demonstrated by its actions and discussions over the past three years and looks forward to COASL/Community Transit continuing its participation in the TPO transportation planning process through the TAC and LCB. Please contact me or Peter Buchwald, the Executive Director of the St. Lucie TPO, should you require any additional information or clarification regarding this request.

Sincerely,

Stephanie Morgan

Stephanie Morgan
Chairwoman

Attachment: Creation Agreement

cc *(via hand delivery unless where noted otherwise)*:
St. Lucie TPO Board Members
Nick Mimms, Fort Pierce City Manager
Sara Hedges, Fort Pierce City Attorney
Jesus Merejo, Port St. Lucie City Manager
Margaret Carland, Port St. Lucie City Attorney
George Landry, St. Lucie County Administrator
Daniel McIntyre, St. Lucie County Attorney
Jon Prince, St. Lucie County Superintendent of Schools
Barbara Sadaka, St. Lucie County School Board Attorney
Steven Braun, FDOT District 4 Secretary (via certified mail)
Peter Buchwald, St. Lucie TPO Executive Director

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

APPORTIONMENT PLAN
November 14, 2023

INTRODUCTION

Federal laws and regulations [23 CFR 450.310(a), 23 USC 134(d)] require metropolitan planning organizations (MPOs) to be designated for each urban area with a population greater than 50,000 people. This designation is accomplished by agreement between the Governor and the affected units of local government. The Federal rules allow the States and units of local government to largely determine the specific composition of the MPOs.

In Florida, Section 339.175 of the Florida Statutes provides the State requirements for the MPO membership composition and the apportionment of the voting membership. Pursuant to these State and Federal rules, the St. Lucie Transportation Planning Organization (TPO) was created in 1981.

Florida Statute 339.175 additionally specifies the following:

"4) APPORTIONMENT.—
(a) Each M.P.O. shall review the composition of its membership in conjunction with the decennial census, as prepared by the United States Department of Commerce, Bureau of the Census, and with the agreement of the Governor and the affected general-purpose local government units that constitute the existing M.P.O., reapportion the membership as necessary to comply with subsection (3)."

After the 2020 Census was completed and the results were released, the Florida Department of Transportation (FDOT) requested on May 16, 2023, that the Florida Metropolitan Planning Organizations (MPOs) initiate the Decennial Apportionment Review in accordance with the above-specified Florida Statute. FDOT further requested that as a result of the Decennial Apportionment Review, an Apportionment Plan be submitted to them by each Florida MPO by November 14, 2023.

This Apportionment Plan is the result of the completion of a Decennial Apportionment Review by the TPO. Although neither such a Plan nor the deadline for submittal of such a Plan are specified in the Florida Statutes, this Plan is being submitted by the TPO in response to the above-identified requests from the FDOT.

METROPOLITAN PLANNING AREA (MPA) BOUNDARY

The boundaries of the MPA are determined by agreement between the MPO and the Governor and, at minimum, encompass the entire existing urban area (as defined by the Census Bureau) plus the contiguous area expected to become urban within a 20-year forecast period (23 CFR 450.312).

The TPO MPA includes the entirety of St. Lucie County. St. Lucie County is located on the Atlantic Coast of central Florida and is approximately 572 square miles in size. The County is bounded by Indian River County to the north, Martin County to the south, the Atlantic Ocean to the east, and Okeechobee County to the west. Three municipalities are located within the County: the City of Fort Pierce, the City of Port St. Lucie, and St. Lucie Village. According to the Bureau of Economic and Business Research at the University of Florida, as of April 1, 2023, the City of Port St. Lucie is the sixth largest City in the State of Florida, only surpassed in population by the Cities of Jacksonville, Miami, Tampa, Orlando, and St. Petersburg. The following is a map of the TPO MPA:

TPO CURRENT MEMBERSHIP

The voting membership on the TPO Board currently is apportioned as follows:

- Four (4) St. Lucie County Board of County Commissioners
- Four (4) City of Port St. Lucie Councilmembers
- Two (2) City of Fort Pierce Commissioners
- One (1) St. Lucie County School Board Member
- One (1) Council on Aging of St. Lucie, Inc. (COASL)/Community Transit Representative

Total Voting Members = 12

The current voting membership of the TPO Board was reaffirmed after the TPO completed its last Decennial Apportionment Review in 2013. The reaffirmation subsequently received concurrence from the Governor later that year.

TPO POPULATION

The results of the 2020 Census compared to the results of the 2010 Census are as follows:

2010 and 2020 Census Results					
Jurisdiction / Local Government	2010 Population	Percentage of Total	2020 Population	Percentage of Total	Number of Voting Members
Fort Pierce	41,590	15.0	47,297	14.4	2
Port St. Lucie	164,603	59.2	204,851	62.2	4
Unincorporated/St. Lucie Village	71,596	25.8	77,078	23.4	4
St. Lucie County Total	277,789	100	329,226	100	

Source: U.S. Census Bureau

TPO PROPOSED MEMBERSHIP

Similar to when the TPO completed its last Decennial Apportionment Review in 2013, there has been little proportional change among the population sizes of the local governments between the 2010 Census and the 2020 Census. Therefore, it appears to be appropriate for the TPO to preserve the existing apportionment of the local governments.

In addition to the voting members representing the local governments and the local School Board, COASL/Community Transit has been a voting member on the TPO Board starting in 1995 when COASL/Community Transit operated the public transportation system in St. Lucie County under a contract with St. Lucie County. However, in July 2020, the contract with COASL/Community Transit for operating the County's public transportation system was not renewed by St. Lucie County, and the County contracted with MV Transportation to operate the public transportation system.

Since COASL/Community Transit no longer operates the public transportation system in St. Lucie County, the public transportation system operator in the County may be represented on the TPO Board by the existing St. Lucie County representatives to the Board. Therefore, the TPO Board moved at its meeting on September 6th to request COASL/Community Transit to withdraw from the TPO Board and to apportion the TPO Board as follows:

- Four (4) St. Lucie County Board of County Commissioners
- Four (4) City of Port St. Lucie Councilmembers
- Two (2) City of Fort Pierce Commissioners
- One (1) St. Lucie County School Board Member

Total Voting Members = 11

An excerpt from the Meeting Summary of the TPO Board Meeting on September 6th is attached which documents the TPO Board's discussion and action regarding the Decennial Apportionment Review.

IMPLEMENTATION

To implement this Apportionment Plan, the TPO submitted the attached written request, dated September 29, 2023, to COASL/Community Transit to withdraw from the TPO Board in accordance with the Interlocal Agreement for Creation of the Metropolitan Planning Organization. The TPO received the attached initial response, dated October 5, 2023, from COASL/Community Transit confirming that the request had been received and will be considered by COASL/Community Transit at its next Board Meeting. The TPO is awaiting the outcome of the next COASL/Community Transit Board Meeting.

It should be noted that COASL/Community Transit will continue to be represented at the TPO through its voting memberships on the TPO's Technical Advisory Committee and the St. Lucie Local Coordinating Board for the Transportation Disadvantaged by which its interests may be expressed and conveyed in accordance with Florida Statute 339.175(3)(b).

ATTACHMENTS

- Excerpt from September 6th TPO Board Meeting Summary
- TPO Request to COASL/Community Transit to Withdraw from the TPO Board, dated September 29, 2023
- COASL/Community Transit Initial Response to the Withdrawal Request from the TPO Board, dated October 5, 2023

COUNCIL ON AGING OF ST. LUCIE, INC.

1505 ORANGE AVENUE • FT. PIERCE, FL 34950 • PHONE (772) 465-5220 • (772) 465-3929
2501 SW BAYSHORE BLVD. • PORT ST. LUCIE, FL 34984 • OFFICE: 772-336-8608 • FAX: 772-336-3314

February 1, 2024

Mr. Chris Dzadovsky, Chairman
St. Lucie Transportation Planning Organization
466 S.W. Port St. Lucie Blvd., Suite 111
Port St. Lucie, FL 34953

Re: Council on Aging of St. Lucie Inc./Community Transit Membership on the St. Lucie Transportation Planning Organization Board

Dear Mr. Dzadovsky:

Council on Aging of St. Lucie, Inc. has proudly served as a founding member of the St. Lucie TPO, actively participating in the development of transportation in St. Lucie County. As indicated in the TPO's letter dated September 29th, 2023, the Board has voted to redefine the composition of the TPO membership, and has requested that our Agency withdraw its membership. Our Board approved proceeding with our withdrawal from the TPO Board, as indicated in our December 4th, 2023 letter, and discussions at the December 6th, 2023 TPO Board meeting.

Therefore, while we believe that our membership on the TPO Board provides value to the organization and the County, especially to the senior citizens of St. Lucie County, this letter shall serve as our notice for the TPO Board to begin the process for Council on Aging of St. Lucie, Inc. to withdraw its membership from the St. Lucie Transportation Planning Organization.

Sincerely,

Darrell J. Drummond, President/CEO

cc: Peter Buchwald, St. Lucie TPO Executive Director, on behalf of Board
Steven Braun, FDOT District IV Secretary
Padrick Pinkney, Counsel for Council on Aging of St. Lucie, Inc.
Lacinda Mouton, COO/SVP
Robert Driscoll, Transit Director/VP

RON DESANTIS
GOVERNOR

August 8, 2024

St. Lucie Transportation Planning Organization
466 SW Port St. Lucie Boulevard, Suite 111
Port St. Lucie, FL 34953

To Whom It May Concern:

In accordance with s. 339.175, Florida Statutes, and Title 23 CFR Part 450, please consider this letter as formal concurrence with the Department of Transportation's recommendation that the St. Lucie Transportation Planning Organization's apportionment plan meets the requirements of s. 339.175, Florida Statutes and Title 23 CFR 450.312(a).

The TPO's continued adherence to the requirements of Florida Law are of upmost importance.

Sincerely,

Ron DeSantis, Governor

CC: Mr. Jared Perdue, P.E., Secretary, Florida Department of Transportation

THE CAPITOL
TALLAHASSEE, FLORIDA 32399 • (850) 717-9249

Agreement shall be reviewed by the MPO and the Department to confirm the validity of the contents and to recommend amendments, if any, that are required.

(b) Withdrawal procedure. Any party, except St. Lucie County and the United States Bureau of the Census designated center city(ies), may withdraw from this Agreement after presenting in written form a notice of intent to withdraw to the other parties to this Agreement and the MPO, at least 90 days prior to the intended date of withdrawal. Upon receipt of the intended notice of withdrawal:

(1) The withdrawing member and the MPO shall execute a memorandum reflecting the withdrawal of the member and alteration of the list of member governments that are signatories to this Agreement. The memorandum shall be filed in the Office of the Clerk of the Circuit Court of each county in which a party hereto is located; and

(2) The Office of the Governor shall be contacted, and the Governor, with the agreement of the remaining members of the MPO, shall determine whether any reapportionment of the membership shall be appropriate. The Governor and the MPO shall review the previous MPO designation, applicable Florida and local law, and MPO rules for appropriate revision. In the event that another entity is to accorded membership in the place of the member withdrawing from the MPO, the parties acknowledge that pursuant to 23 C.F.R. 450.306(k), adding membership to the MPO does not automatically require redesignation of the MPO. In the event that a party who is not a signatory to this Agreement is accorded membership on the MPO, membership shall not become effective until this Agreement is amended to reflect that the new member has joined the MPO.

Section 7.04. Notices. All notices, demands and correspondence required or provided for under this Agreement shall be in writing and delivered in person or dispatched by certified mail, postage prepaid, return receipt requested. Notice required to be given shall be addressed as follows:

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

AGENDA ITEM SUMMARY

Board/Committee:	St. Lucie TPO Board
Meeting Date:	October 2, 2024
Item Number:	9a
Item Title:	US-1 Corridor Congestion Study Scope of Services
Item Origination:	Unified Planning Work Program (UPWP)
UPWP Reference:	Task 2.3 - Traffic Count Program Management
Requested Action:	Approve or do not approve.
Staff Recommendation:	Based on the recommendations of the TPO Advisory Committees and the scope and cost being consistent with Task 2.3 of the UPWP, it is recommended that the US-1 Corridor Congestion Study Scopes of Services be approved.

Attachments

- Staff Report
- US-1 Corridor Congestion Study Scope of Services

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

MEMORANDUM

TO: St. Lucie TPO Board

THROUGH: Peter Buchwald
Executive Director

FROM: Yi Ding
Transportation Systems Manager

DATE: September 25, 2024

SUBJECT: US-1 Corridor Congestion Study Scope of Services

BACKGROUND

As part of the 2025 Traffic Count Management Program (Program), the US-1 Corridor Congestion Study (Study) is programmed for FY 2024/25 in Task 2.3 of the TPO's Unified Planning Work Program (UPWP). As part of the Study, additional traffic count data will be collected through the Program and analyzed to quantify the level of congestion on US-1 from Prima Vista Boulevard to the Martin County Line and on nearby parallel corridors. Based on the analysis, strategies will be developed to reduce the traffic congestion on this segment of US-1 for project development and programming.

ANALYSIS

The attached draft Scope of Services for the Study was prepared by Benesch, one of the TPO's General Planning Consultants. Benesch has provided the traffic count collection and Traffic Count Data Management System (TCDMS) maintenance services since the inception of the Program. Benesch also completed the recent Major Update to the Congestion Management Process.

The draft Scope of Services is consistent with the scope outlined in the adopted UPWP. Benesch proposes a cost of $19,994 for the Study which is within the UPWP task budget.

At their meetings during the week of September 16th, the TPO Advisory Committees recommended the approval of the US-1 Corridor Congestion Study Scope of Services.

RECOMMENDATION

Based on the recommendations of the TPO Advisory Committees and the scope and cost being consistent with Task 2.3 of the UPWP, it is recommended that the US-1 Corridor Congestion Study Scopes of Services be approved.

ST. LUCIE COUNTY

TRAFFIC COUNT PROGRAM MANAGEMENT

U.S. 1 CORRIDOR CONGESTION STUDY

SCOPE OF SERVICES

Prepared For:
St. Lucie Transportation Planning Organization
Coco Vista Center
466 SW Port St. Lucie Boulevard
Port St. Lucie, FL 34953
ph (772) 462-1593

Prepared By:

benesch

100 W. Cypress Creek Road, Suite 980
Fort Lauderdale, FL 33309
ph (954) 641-5680

August 31, 2024

INTRODUCTION

As part of the 2025 Traffic Count Management Program, additional traffic count data will be collected and analyzed to quantify the level of congestion on U.S. 1 from Prima Vista Boulevard to the Martin County Line and nearby parallel corridors. Strategies will be developed to reduce the traffic congestion on the segment of U.S. 1 based on the analysis for project development and programming. This activity is included in Task 2.3 – Traffic Count Program Management of the St. Lucie TPO 2024/25 – 2025/26 UPWP.

The study will be accomplished through the following tasks:

Task 1 **Traffic Data Collection and Gathering:** Benesch will compile all available traffic data within the US-1 study segment and parallel corridors. This will include current and historic traffic data from the Traffic Count Data Management System (TCDMS) and the Florida Department of Transportation (FDOT) for the purpose of performing detailed congestion analysis and track trends. Benesch will also compile data from RITIS and REPLICA to measure and analyze congestion within the corridor.

Task 2 **Daily and Peak Hour Congestion Analysis:** Daily Level-of-Service (LOS) will be calculated, the peak period will be determined, and peak-period LOS will be determined. Delay, speed, and queue lengths will be reviewed as available from RITIS. REPLICA will be the primary source in determining origins and destination of trips observed along the U.S. 1 corridor. These are other available sources will be used to gain insight into trip making and travel characteristics.

Task 3 **Develop Strategies to Reduce Traffic Congestion:** Benesch will develop recommended strategies to reduce congestion on U.S. 1. The strategies considered will be consistent with those utilized in the TPO's Congestion Management Process. The anticipated traffic reduction of recommended strategies will be quantified, and planning level cost estimates will be developed. Benesch will research, review, and consider impacts to congestion of any existing and planned projects by FDOT, the TPO, and other local implementing agencies.

Task 4 **Documentation:** Benesch will prepare a technical memorandum to document the analysis, findings, and recommendations. A draft version will be submitted to the TPO for review. A final technical memorandum will be produced which incorporates comments from the TPO.

Task 5 **Presentations:** Benesch will prepare a PowerPoint presentation which summarizes the study process, findings, and recommendations. Benesch will participate in presenting to the TPO committees and Board.

Budget:

The services described herein shall be completed at a not to exceed cost of $19,993.30 based on the effort estimate included herein as Attachment 1. Invoices shall be based on the percentage of completion of work accomplished and as documented in the project status report.

Schedule:

The tasks shall be completed by June 30, 2025.

U.S. 1 Corridor Congestion Study

ACTIVITY		Principal-in-Charge $ 269.00	Project Manager $ 229.84	Senior Planner $ 127.44	Senior Engineer $ 196.95	Engineer $ 102.86	Planner $ 81.34	Engineer Tech. $ 57.35	Admin/ Clerical $ 68.29	TOTAL HOURS	COST BY ACTIVITY
Conduct U.S. 1 Corridor Congestion Study		2	20	34	22	40	14	14	2	148	$ 19,993.30
Task 1	**Traffic Data Collection and Gathering:** Benesch will compile all available traffic data within the US-1 study segment and parallel corridors. This will include current and historic traffic data from the Traffic Count Data Management System (TCDMS) and the Florida Department of Transportation (FDOT) for the purpose of performing detailed congestion analysis and track trends. Benesch will also compile data from RITIS and REPLICA to measure and analyze congestion within the corridor.		2	2	2	4	6	4		20	$ 2,237.34
Task 2	**Daily and Peak Hour Congestion Analysis:** Daily Level-of-Service (LOS) will be calculated, the peak period will be determined, and peak-period LOS will be determined. Delay, speed, and queue lengths will be reviewed as available from RITIS. REPLICA will be the primary source in determining origins and destination of trips observed along the U.S. 1 corridor. These are other available sources will be used to gain insight into trip making and travel characteristics.		2	8	2	4	4	4		24	$ 2,839.30
Task 3	**Develop Strategies to Reduce Traffic Congestion:** Benesch will develop recommended strategies to reduce congestion on U.S. 1. The strategies considered will be consistent with those utilized in the TPO's Congestion Management Process. The anticipated traffic reduction of recommended strategies will be quantified, and planning level cost estimates will be developed. Benesch will research, review, and consider impacts to congestion of any existing and planned projects by FDOT, the TPO, and other local implementing agencies.		4	4	12	16		4		40	$ 5,667.68
Task 4	**Documentation:** Benesch will prepare a technical memorandum to document the analysis, findings, and recommendations. A draft version will be submitted to the TPO for review. A final technical memorandum will be produced which incorporates comments from the TPO.	2	4	4	4	16			2	32	$ 4,537.26
Task 5	**Presentations:** Benesch will prepare a PowerPoint presentation which summarizes the study process, findings, and recommendations. Benesch will participate in presenting to the TPO committees and Board.		8	16	2		4	2		32	$ 4,711.72
Total Hours:		2	20	34	22	40	14	14	2	148	
Total Labor:		$ 538	$ 4,597	$ 4,333	$ 4,333	$ 4,114	$ 1,139	$ 803	$ 137	$ 19,993	$ 19,993.30
										TOTAL COSTS:	$ 19,993.30

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

AGENDA ITEM SUMMARY

Board/Committee:	St. Lucie TPO Board
Meeting Date:	October 2, 2024
Item Number:	9b
Item Title:	Florida Shared-Use Nonmotorized (SUN) Trail Port Connector Feasibility Study
Item Origination:	Unified Planning Work Program (UPWP)
UPWP Reference:	Task 3.5 – Bicycle-Pedestrian/Complete Streets Planning
Requested Action:	Endorse the Preferred Alternative of the SUN Trail Port Connector Feasibility Study, endorse with conditions, or do not endorse.
Staff Recommendation:	Based on the feasibility and endorsement of the Preferred Alternative by the Fort Pierce City Commission and the TPO Advisory Committees, it is recommended that the Preferred Alternative of the SUN Trail Port Connector Feasibility Study be endorsed.

Attachments

- Staff Report
- City of Fort Pierce Endorsement Letter
- SUN Trail Port Connector Feasibility Study Presentation

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

MEMORANDUM

Board/Committee:	St. Lucie TPO Board
THROUGH:	Peter Buchwald Executive Director
FROM:	Stephanie M. Torres Bicycle-Pedestrian Program Manager
DATE:	September 25, 2024
SUBJECT:	Florida Shared-Use Nonmotorized (SUN) Trail Port Connector Feasibility Study

BACKGROUND

The Florida Shared-Use Non-Motorized (SUN) Trail Program allocates $50 million annually for the development of a statewide paved trail system benefiting bicyclists and pedestrians across Florida. The East Coast Greenway (ECG) is a shared-use path spanning 15 states and connecting 450 cities and towns over 3,000 miles from Florida to Maine. The SUN Trail and ECG share the same north-south alignment through the St. Lucie TPO area.

By 2026, the Florida Department of Transportation (FDOT) will have invested over $30 million toward completing the SUN Trail/ECG through the TPO area. Within the TPO area, three SUN Trail/ECG segments have been completed: Indian Hills Recreation Area, a portion of the Savannas Recreation Area, and Green River Parkway which connects St. Lucie and Martin Counties. Additionally, two projects, together known as the Savannas Gap Trail and which link the Green River Parkway segment to the Savannas Recreation Area segment, are currently under construction by FDOT. The first project is from Walton Road to Kitterman Road, and the second project is from Lennard Road to the Savannas Recreation Area. Both are estimated to be completed in the fall of 2025.

Collaboration between the St. Lucie Transportation Planning Organization (TPO) and St. Lucie County resulted in obtaining SUN Trail funding to complete a Feasibility Study for the SUN Trail Port Connector Project which proposes to

close the last remaining gap in the SUN Trail/ECG in the TPO area. The SUN Trail Port Connector proposes to cross the Florida East Coast (FEC) Railroad and connect the SUN Trail/ECG from Old Dixie Highway into the Port of Fort Pierce.

Because Kimley-Horn has completed several other SUN Trail feasibility studies in the past, including the feasibility studies in the TPO area for the FEC Railroad Overpass and the Savannas Gap Trail, they were retained to complete the Feasibility Study. The Study includes identifying alignments for the SUN Trail, identifying potential environmental impacts, preparing proposed typical sections, providing construction cost estimates for each alternative, and determining the Preferred Alternative. The proposed Preferred Alternative of the Feasibility Study is being presented for review, comment, and endorsement.

ANALYSIS

The Preferred Alternative was developed with comprehensive community input and collaboration. The public outreach efforts included:

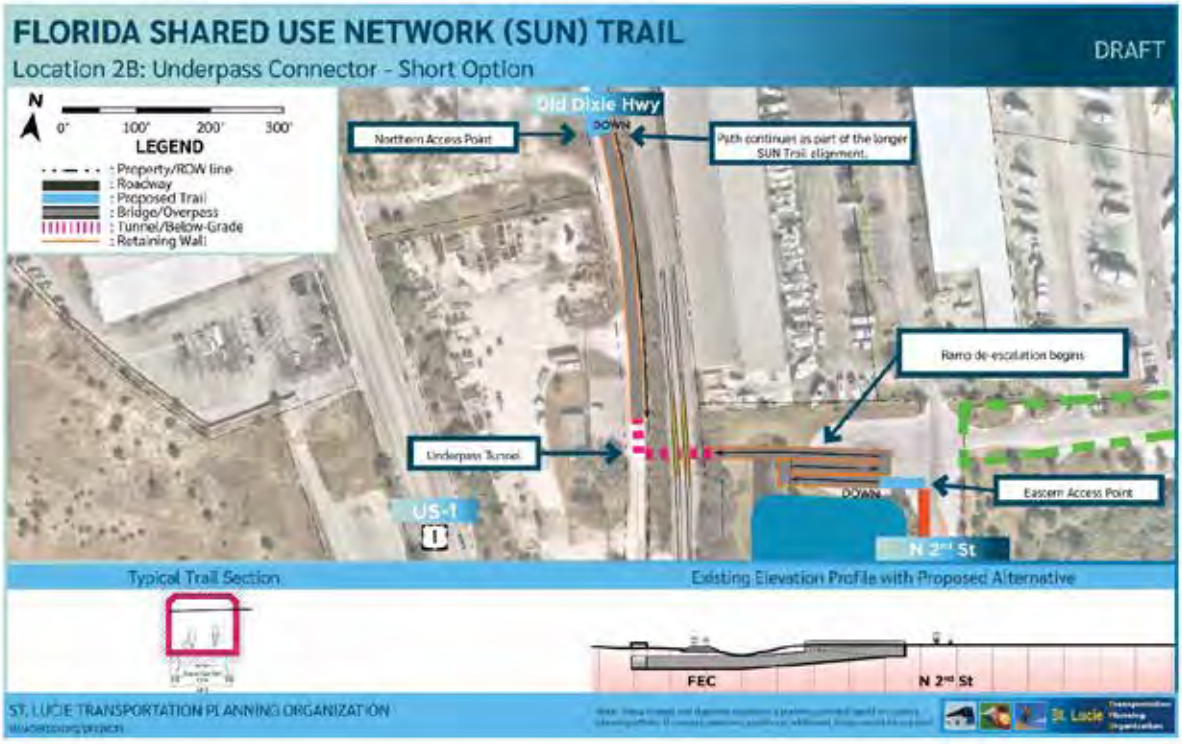
- Regular Coordination Meetings: Ongoing discussions between the interagency working group to ensure coordinated efforts.
- Stakeholder Input: Gathering valuable feedback from key stakeholders to guide project development.
- Community Workshop: A workshop held in February 2024 to engage with the community members and gather their insights.
- Project Mailers: Sending community engagement information via traditional mail to reach a broader audience.
- Social Media: Social Media posts directing users to an online survey to collect widespread community feedback.

The feedback gathered reflected the need for roadway connectivity in support of the Port redevelopment activities expected to occur per the 2020 Port Master Plan. Additionally, providing non-motorized facility connections to the Lincoln Park community and increasing accessibility to Harbour Pointe Regional Park was identified to be a top priority.

Six different alignment alternatives (A-F) explored overpass, underpass, and at-grade facilities. From these alternatives, the following most feasible

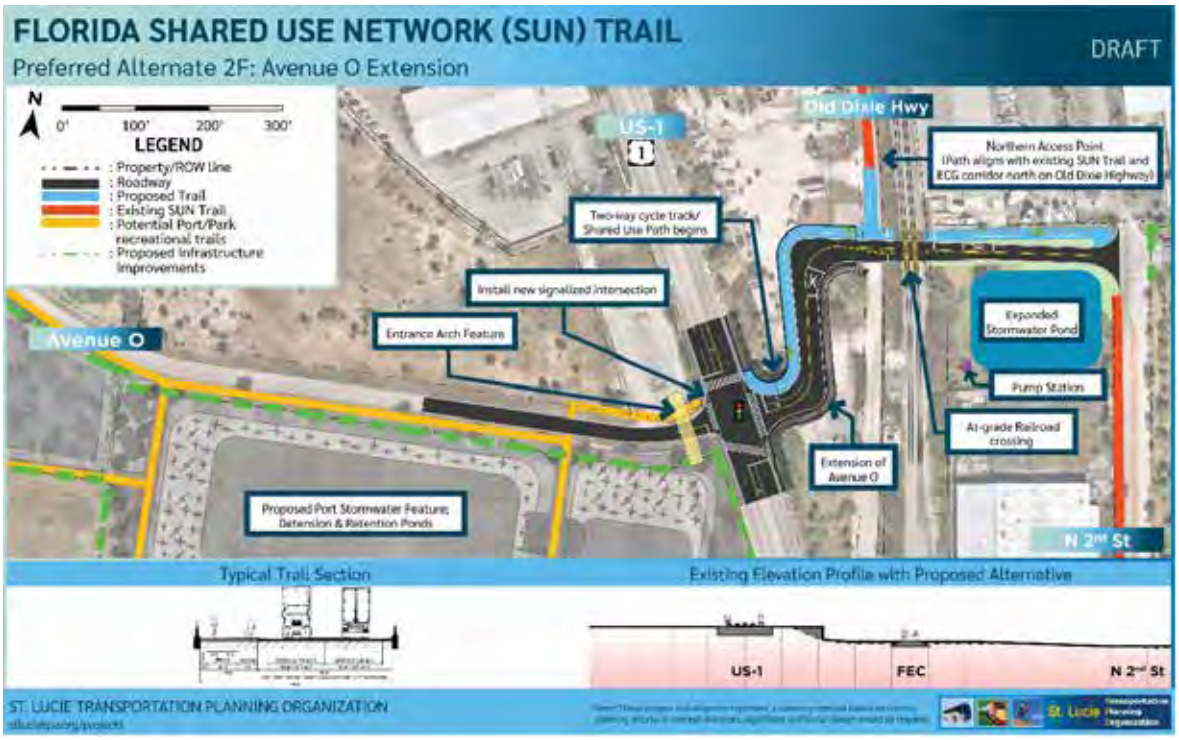
overpass and underpass options were selected based on the analyses conducted and the feedback received to date:

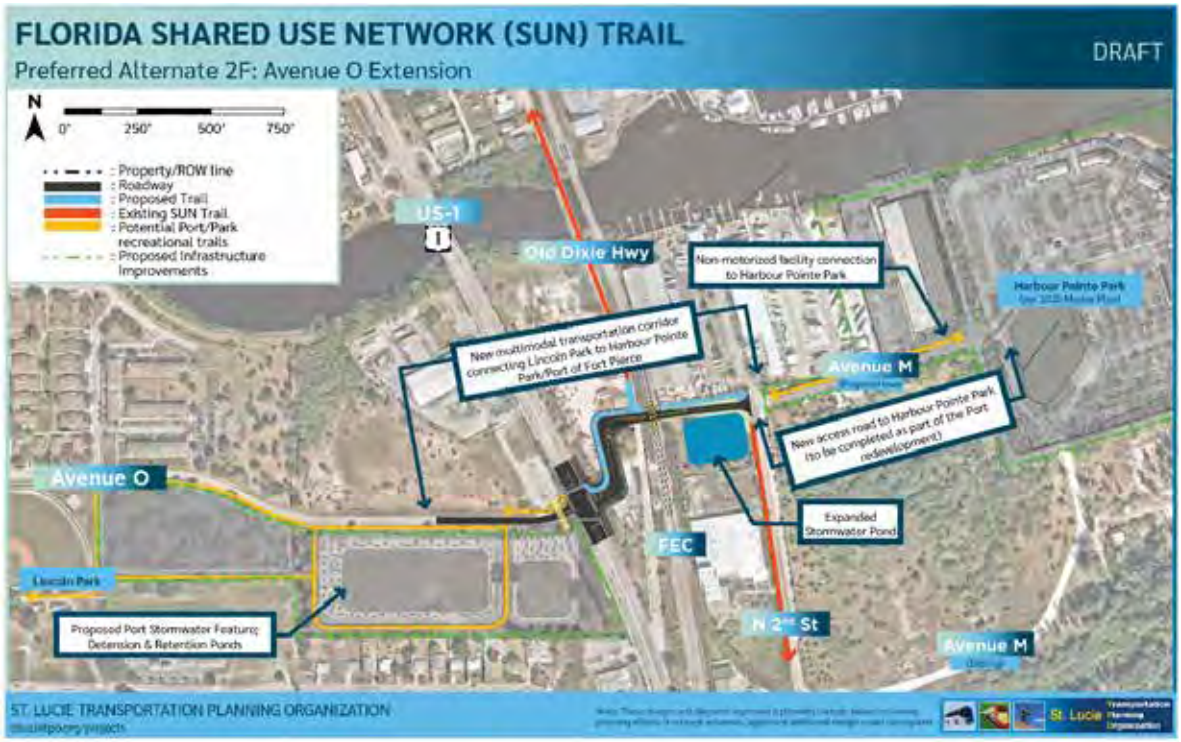
Alternative 2B: Underpass Connector – Short Option (Phase 1)
Construction Cost: $14,730,000



Alternative 2B, known as Phase 1 of the Preferred Alternative, is a culvert underpass that extends beneath the FEC Railroad connecting North 2nd Street with Old Dixie Highway. East of the FEC Railroad, the east entrance and de-escalation of the underpass begins just west of North 2nd Street along the north side of the existing stormwater retention pond. The underpass then includes a series of switchbacks to meet the required clearance distance below the FEC Railroad and then continues west passing beneath the railroad. After the path crosses beneath the FEC Railroad, it turns north along the east side of Old Dixie Highway where it eventually reaches ground level and connects to the existing SUN Trail/ECG alignment. Additionally, the underpass will include stormwater management and treatment strategies to prevent flooding and pooling of stormwater to ensure the underpass is always accessible. Pump systems will be installed within the retaining walls of the underpass which adds approximately two feet of width on either side of the underpass. Additionally, a pre-fabricated culvert is proposed for the construction of the underpass which reduces construction costs.

Alternative 2F: Port to Parks Connector – At-Grade Crossing Option (Phase 2)
Construction Cost: $8,850,000.00





Alternative 2F, known as Phase 2 of the Preferred Alternative, extends the existing Avenue O roadway to the east through a new signalized intersection at US-1, crossing Old Dixie Highway and the FEC Railroad at grade, before continuing to connect to the existing North 2nd Street roadway to provide a gateway into the reimagined Harbour Pointe Regional Park. An at-grade path along the north side of the roadway maintains separation between nonmotorized and motorized users. The wedged parcel between US-1 and Old Dixie Highway provides adequate length for the roadway and path to meet the elevation of US-1 without drastic slopes. Several new crosswalks, median striping, and railroad crossing indicators on the roadway will be incorporated to ensure safety. This alternative achieves connectivity to the communities and recreation facilities west of US-1 while also providing a direct connection into the gateway entrance envisioned for the new Harbour Pointe Regional Park as identified in the Port Master Plan.

Because Alternative 2F is a concept that requires significant coordination across several entities that could exceed the FDOT-programmed timeframe for design funding, Alternative 2B (short-option underpass) was determined to be the Phase 1 Preferred Alternative to be completed before the Phase 2 Preferred Alternative of Alternative 2F (at-grade option). The phases are planned to connect and function seamlessly upon completion with the path on the north side of the roadway connecting with the underpass of Alternative 2B to provide a grade-separated crossing of the FEC railroad for nonmotorized users. The grade-separated crossing ensures safety and provides access to the Harbour Pointe Regional Park for nonmotorized users while connecting users of the SUN Trail/ECG to a regional recreation destination. It should also be noted that unlike Alternative 2F (Phase 2), the Alternative 2B (Phase 1) does not rely on the acquisition of the wedged parcel between Old Dixie Highway and US-1.

The Florida Department of Transportation (FDOT) has allocated $1.1 million in Fiscal Year 2024/25 for the design of the Preferred Alternative Phase 1 which the City of Fort Pierce agreed to manage at the September 9th City Commission Meeting. In addition, the City Commission endorsed the Preferred Alternative at the Meeting as confirmed in the attached letter. At their meetings during the week of September 16th, the TPO Advisory Committees also recommended the endorsement of the Preferred Alternative.

RECOMMENDATION

Based on the feasibility and endorsement of the Preferred Alternative by the Fort Pierce City Commission and the TPO Advisory Committees, it is recommended that the Preferred Alternative of the SUN Trail Port Connector Feasibility Study be endorsed.

THE SUNRISE CITY
FORT PIERCE
OFFICE OF THE MAYOR
AND CITY COMMISSION
Florida

September 24, 2024

Peter Buchwald, Director
St. Lucie County Transportation Planning Organization
buchwaldp@stlucieco.org

Re: Florida Shared-Use Network (SUN) Trail

Dear Mr. Buchwald,

Thank you for presenting the Sun Trail Port of Fort Pierce Connector Feasibility Study recommendations at the City Commission meeting on September 9, 2024. We are excited about the potential to fill some of the connection gaps. After reviewing the multiple options, the Sun Trail Port Connector Preferred Alternative that presented was endorsed by the City Commission.

The Commission encouraged staff to continue to work with the Florida Department of Transportation and the TPO to obtain the $1.1 million Sun Trail funding for the design of Phase 1.

If you have any questions, or need any additional information, please don't hesitate to contact us.

Sincerely,

Linda Hudson

Linda Hudson
Mayor

St. Lucie Transportation Planning Organization

Port of Fort Pierce Connector Feasibility Assessment

Prepared By:

Kimley»Horn

October 2024

SUN Trail Design Criteria

Path width
- 10-14 feet

Path surface
- ADA-compliant hard surface pavement

Vertical clearance
- 10 feet minimum
- 12 feet preferred

Horizontal clearance
- 4 feet from edge of pavement

Grades
- Up to 5% running slope
- Short distances of steeper grades may be provided when necessary

Potential Connector Locations

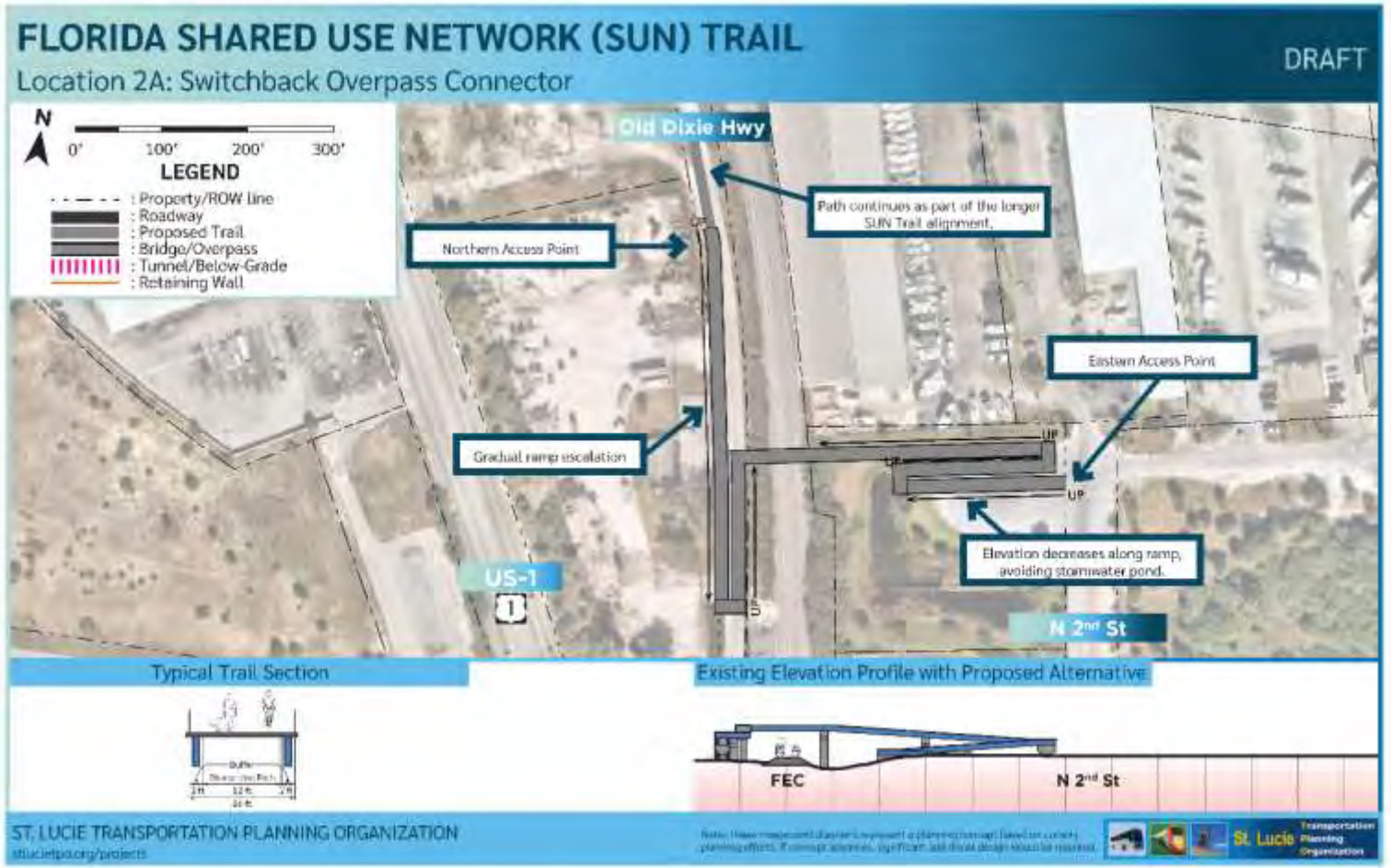
- Rail spur
- Truck turnaround
- Fisherman's Wharf to US-1

Truck Turnaround / Retention Pond Alt.

- Primary focus for alternatives analysis
  - General location for alternatives 2A-2F
- Public Ownership of retention pond
- Wedge parcel west of Old Dixie Highway currently privately owned

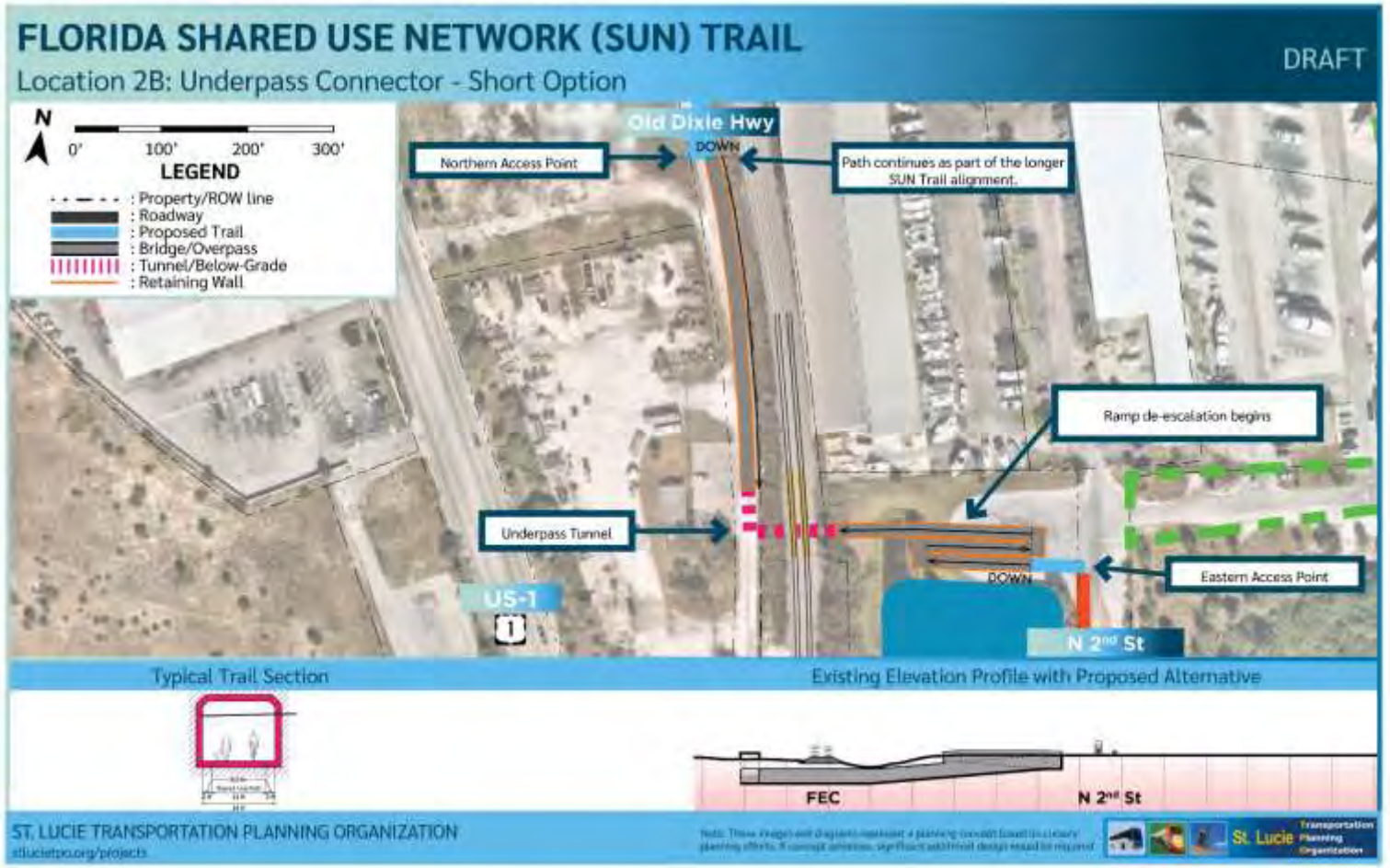
2A – Switchback Overpass Connector

- Elevated trail from N 2nd St to Old Dixie Hwy, over FEC Railway
- Switchbacks necessary to achieve accessible slope standards (max 5%)
- Eastern entrance aligns with envisioned entrance into Harbour Pointe Park



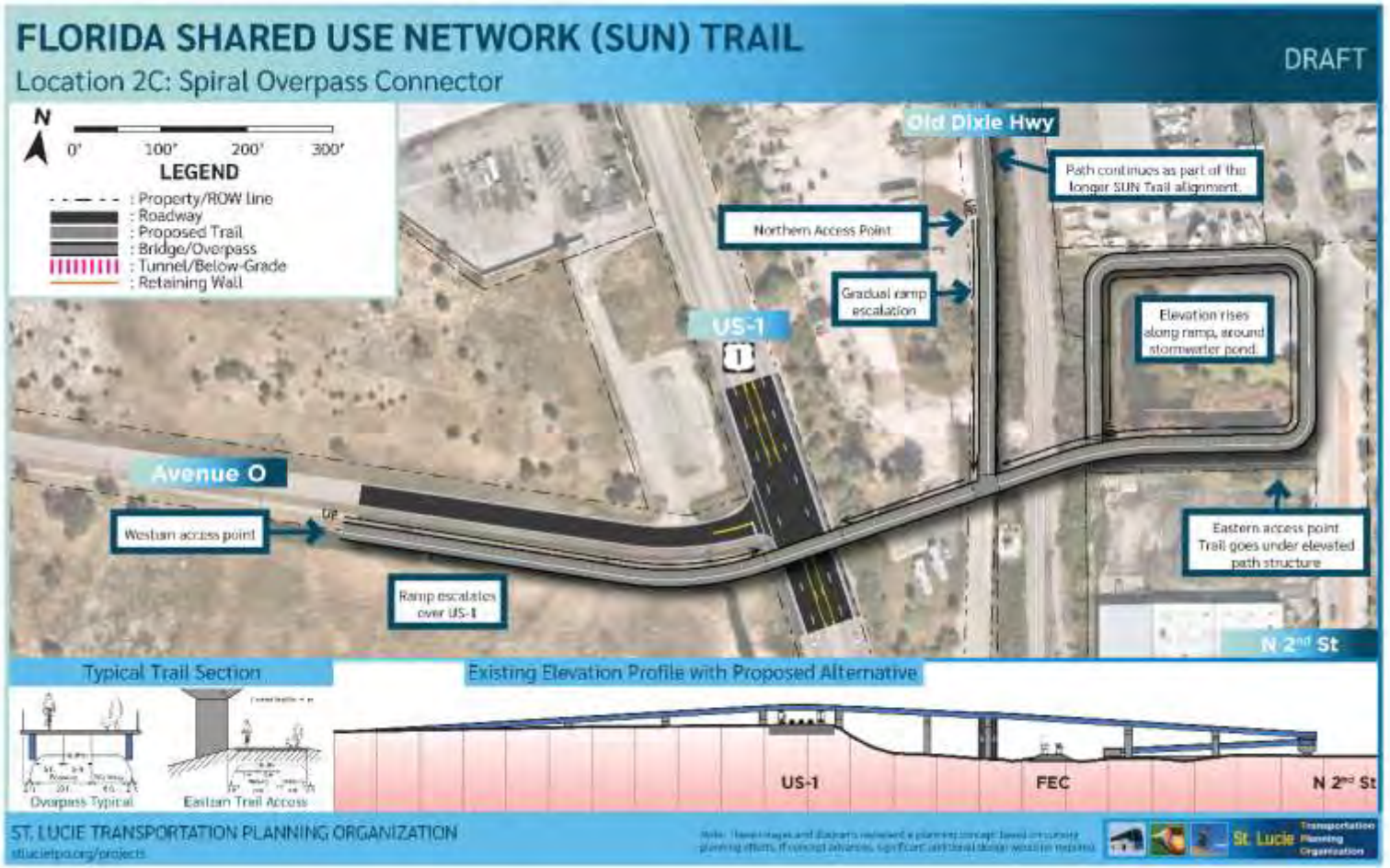
2B – Underpass Connector – Short Option

- Culvert-style underpass that would connect N 2nd St with Old Dixie Highway
  - Connection with planned shared-use path along Old Dixie Highway (also the current SUN Trail alignment)
- De-escalation begins along N 2nd Street to meet accessible slope standards (max 5%)



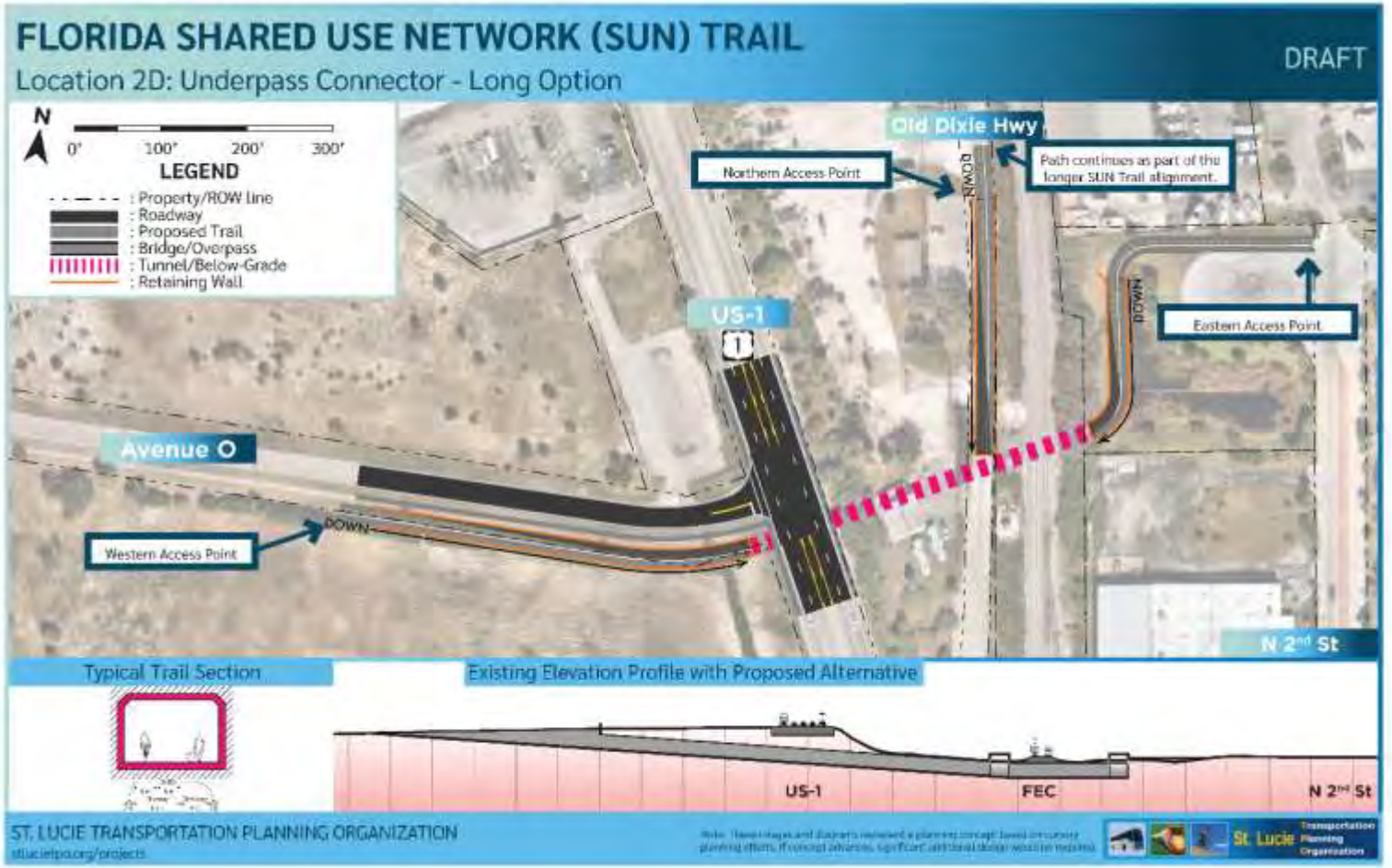
2C – Spiral Overpass Connector

- Connects N 2nd St to Avenue O, utilizing higher land elevation for an overpass
  - Path continues north to connect with existing SUN Trail alignment along Old Dixie Hwy
- Incorporates connectivity to the communities and recreation facilities west of US-1



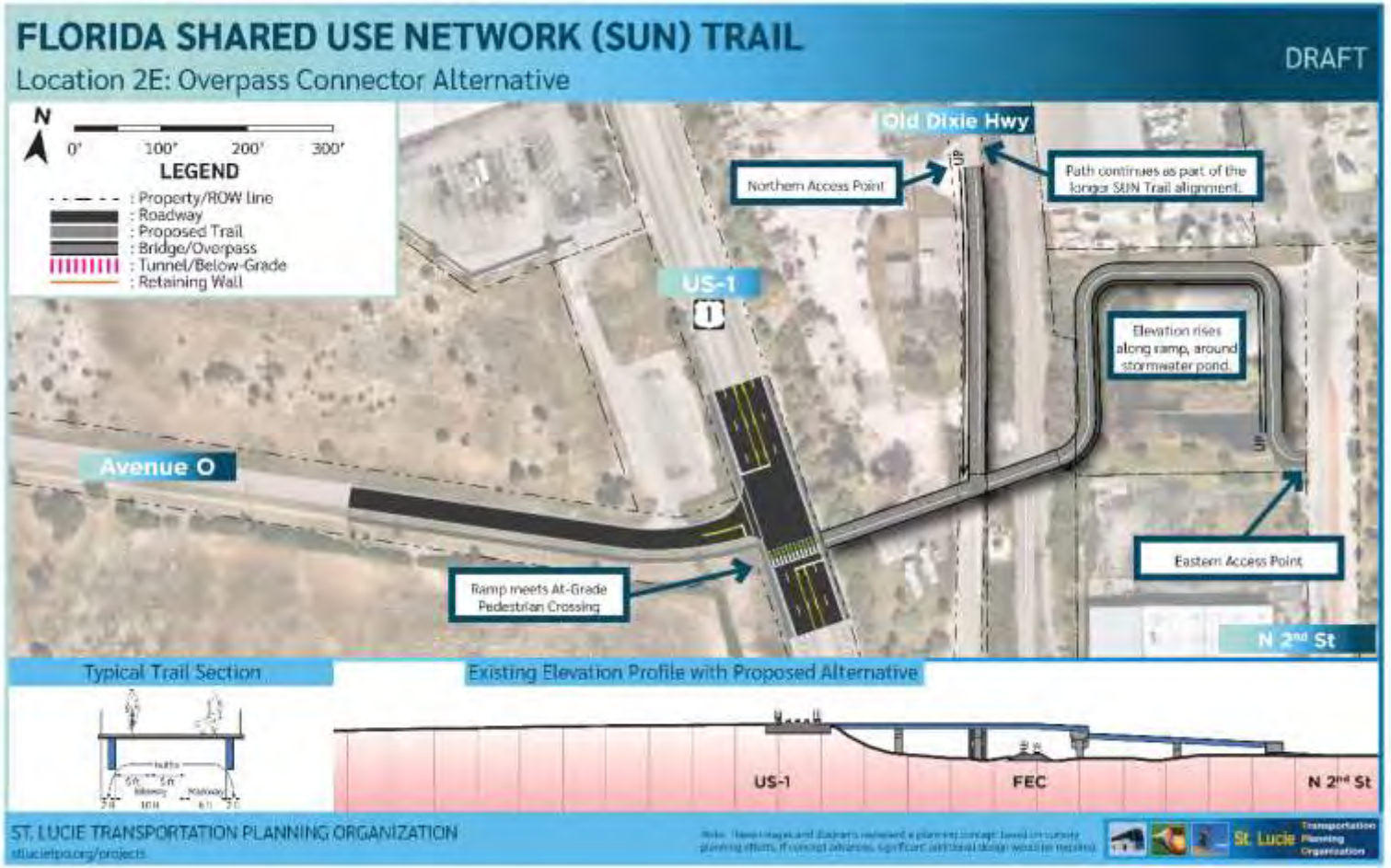
2D – Underpass Connector – Long Option

- Links to communities west of US-1 and connects to existing SUN Trail alignment along Old Dixie Hwy, and east to Harbour Pointe Park
- The elevation difference between US-1 and Old Dixie Highway requires a longer underground path to maintain accessibility



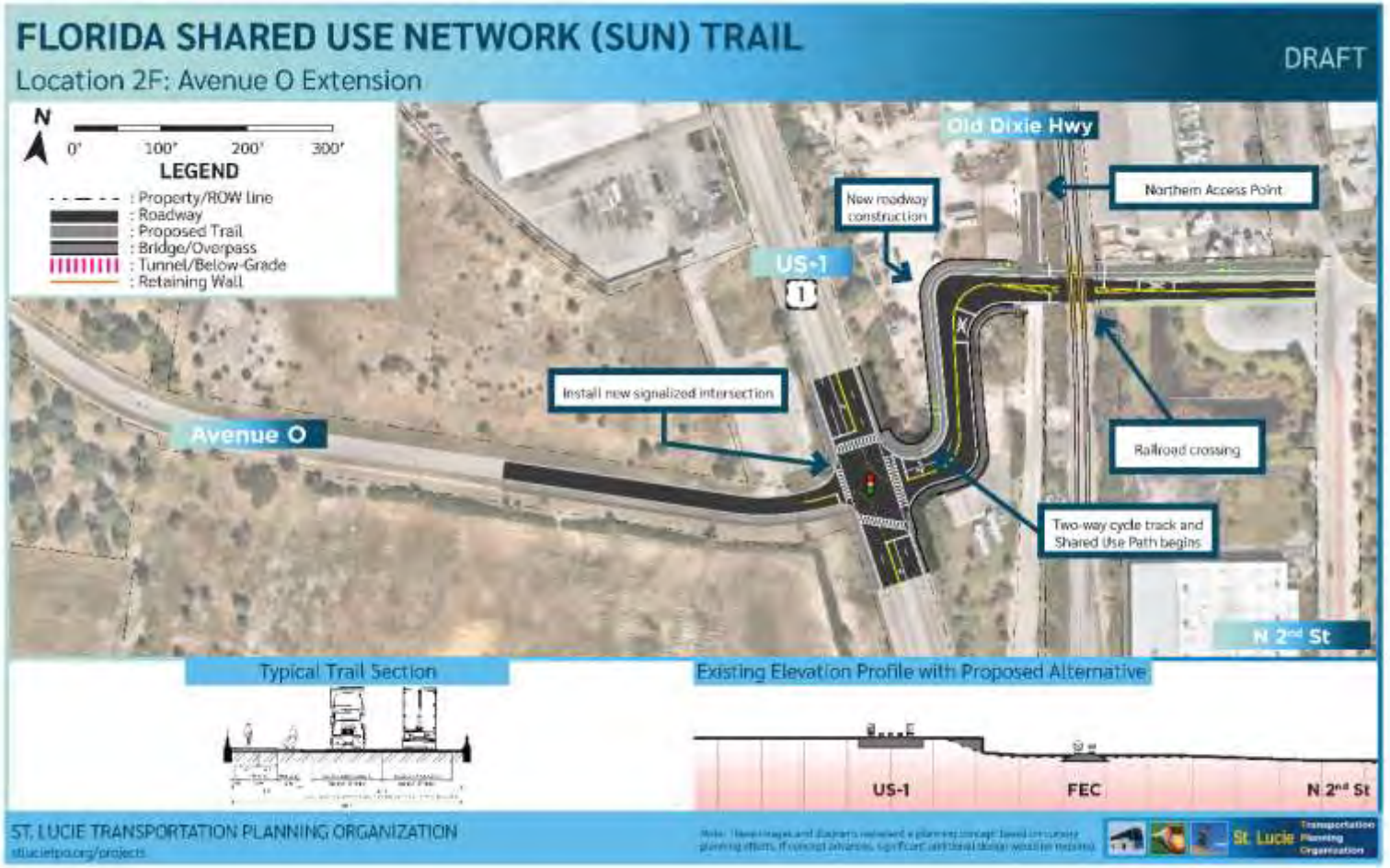
2E – Overpass Connector

- Medium-distance overpass concept that uses gradually sloped ramps to connect N 2nd St to US-1.
- Path features a more direct elevation to reach the minimum necessary vertical clearance over the FEC Railway
- Path meets US-1 at-grade and will include signalization at this intersection.
- 2E is approx. 550 feet shorter than 2C.



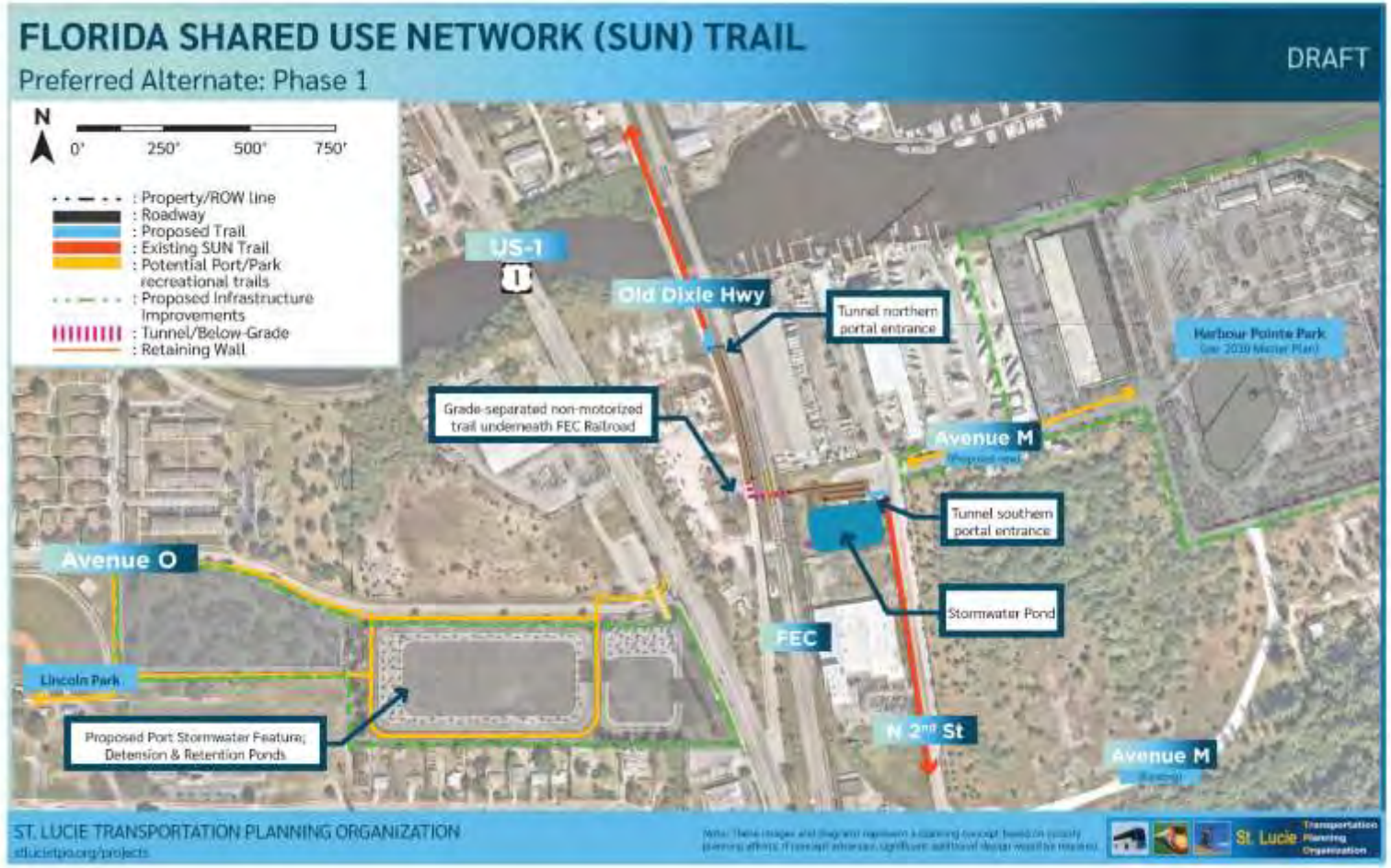
Additional Opportunity 2F – Avenue O Extension

- Extends the existing Avenue O roadway eastward, crossing the FEC Railway at-grade, and connecting to the existing N 2nd St roadway
- Includes an off-road 2-way cycle track/shared-use path running parallel to the Avenue O extension
- Provides bike/ped and vehicle access from Lincoln Park area to regional port destination
- **Challenge:** FEC requires 2 rail crossings to be closed for the opening of one new crossing



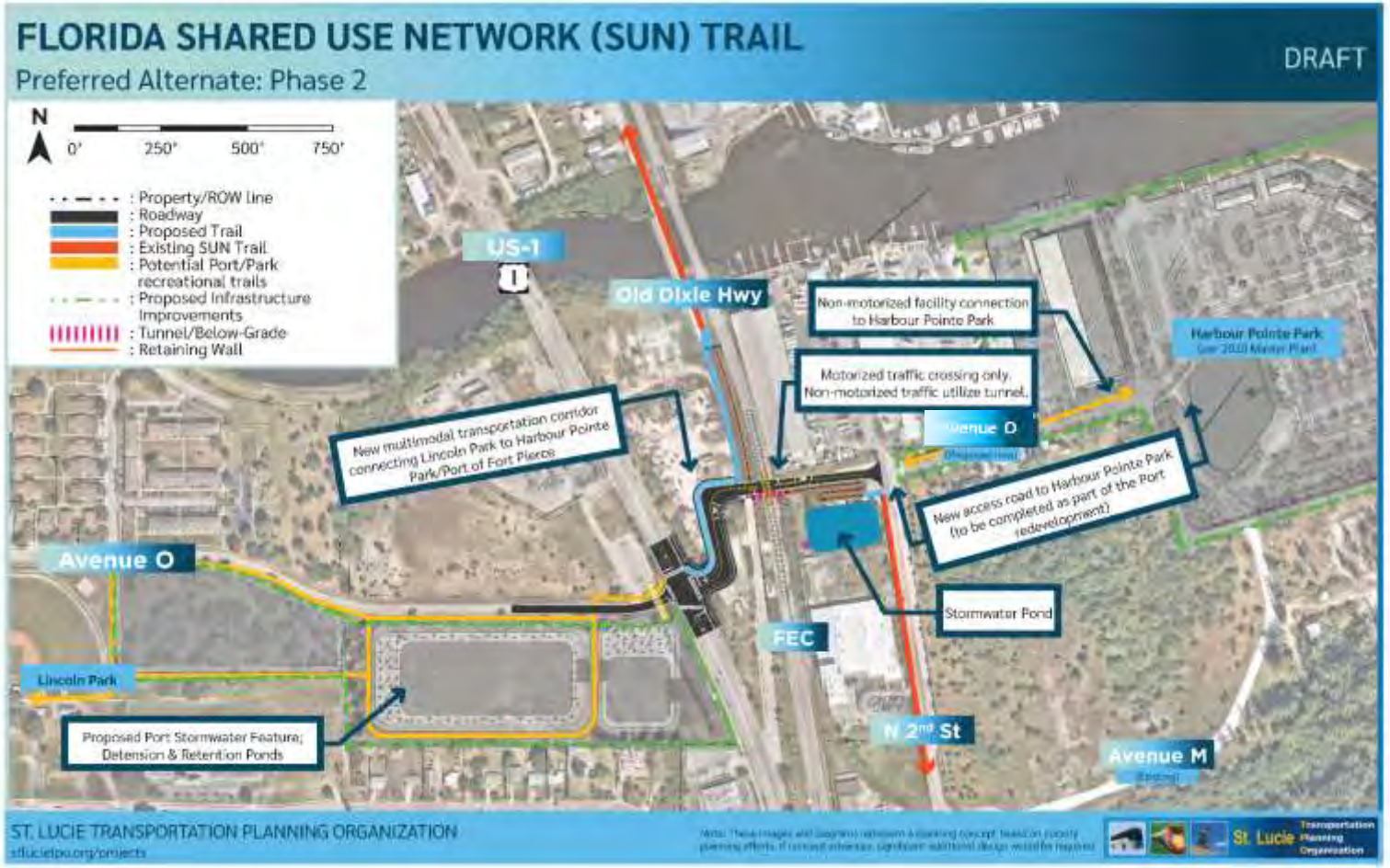
Preferred Alternative

- **Two-phased Implementation approach**
- Phase 1 includes the addition of Alternative 2B Underpass
- Phase 2 involves the addition of Alternative 2F
- Phasing allows for non-motorized grade separated connection under the FEC railroad while the Port to Parks Connector is being developed.



Preferred Alternative (Port to Parks Connector)

- Alternative 2F has slight modifications to accommodate both facilities
- **Benefits:**
  - Meets SUN Trail requirements (grade-separated 10ft. SUP)
  - Inclusion of Avenue O concept provides connectivity to communities west of US-1
  - Roadway extension provides essential road network addition as the port grows



St. Lucie Transportation Planning Organization

Thank You

Prepared By:

Kimley»Horn

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
(772) 462-1593
www.stlucietpo.org

AGENDA ITEM SUMMARY

Board/Committee:	St. Lucie TPO Board
Meeting Date:	October 2, 2024
Item Number:	9c
Item Title:	2020 Federal Roadway Functional Classification Map
Item Origination:	Florida Department of Transportation (FDOT)
UPWP Reference:	Task 2.2 – GIS and Data Management
Requested Action:	Approve the draft 2020 Map for the TPO area for execution by the TPO Executive Director, approve with conditions, or do not approve.
Staff Recommendation:	Based on the recommendation of the TPO Technical Advisory Committee and because the draft 2020 Federal Roadway Functional Classification Map addresses the TPO and local agency staff comments, it is recommended that the draft 2020 Map for the TPO area be approved for execution by the TPO Executive Director.

Attachments

- Staff Report
- FHWA's Highway Functional Classification Concepts, Criteria, and Procedures Excerpts
- Draft 2020 Federal Roadway Functional Classification Map
- 2020 Summary of Changes

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

MEMORANDUM

TO: St. Lucie TPO Board

THROUGH: Peter Buchwald
Executive Director

FROM: Yi Ding
Transportation Systems Manager

DATE: September 25, 2024

SUBJECT: 2020 Federal Roadway Functional Classification Map

BACKGROUND

In May 2023, as required by the Federal Highway Administration (FHWA), the Florida Department of Transportation District 4 (FDOT D4) initiated a review of the 2020 Adjusted Urban Area Boundary (UAB) following the release of the 2020 Decennial Census. The St. Lucie Transportation Planning Organization (TPO) coordinated this effort with FDOT D4 and the local jurisdictions within the TPO area. These adjustments were reviewed and concurred by the TPO Board in February 2024 before being submitted for FHWA approval.

Subsequently, FDOT District 4 has been working closely with the TPO and local partners to inventory roadways and update the Federal Roadway Functional Classifications for the TPO area. This update will need to be approved by the TPO before its submission to the FHWA for final approval.

ANALYSIS

The Federal Functional Classification system sets expectations for roadway design, speed, capacity, and the roadway's relationship to existing and future land uses. It also determines eligibility for funding under Federal-Aid highway programs.

Functional classification defines the role of a roadway segment in serving traffic within the overall network. Roadways are categorized into a hierarchy

of classifications based on the attached excerpts from FHWA's Highway Functional Classification Concepts, Criteria, and Procedures.

FDOT D4 reevaluated the 2010 Federal Roadway Functional Classification Map in accordance with FHWA's guidelines and prepared a draft 2020 Federal Roadway Functional Classification Map which was presented to local agency and TPO staffs on August 2, 2024, for comments. The attached draft 2020 Federal Roadway Functional Classification Map for the TPO area addresses the comments received from the local agency and TPO staffs. A 2020 Summary of Changes is attached that describes how the comments received from the local agency and TPO staffs were addressed.

At its meeting on September 17th, the TPO Technical Advisory Committee recommended the approval of the draft 2020 Federal Roadway Functional Classification Map for the TPO area.

RECOMMENDATION

Based on the recommendation of the TPO Technical Advisory Committee and because the draft 2020 Federal Roadway Functional Classification Map addresses the TPO and local agency staff comments, it is recommended that the draft 2020 Map for the TPO area be approved for execution by the TPO Executive Director.

FHWA

Highway Functional Classification Concepts, Criteria and Procedures 2023 Edition

February 2023

U.S. Department of Transportation
Federal Highway Administration

SECTION 1. INTRODUCTION

The *Highway Functional Classification: Concepts, Criteria and Procedures, 2023 Edition*, describes the procedures and processes for assigning functional classifications to roadways and adjusting urban area boundaries. This document builds upon and modifies prior guidance documents.

Our nation's roadway system is a vast network that connects places and people within and across national borders. Planners and engineers have developed elements of this network with particular travel objectives in mind. These objectives range from serving long-distance passenger and freight needs to serving neighborhood travel from residential developments to nearby shopping centers. The functional classification of roadways defines the role each element of the roadway network plays in serving these travel needs.

Over the years, functional classification has come to assume additional significance beyond its purpose as a framework for identifying the role of a roadway in moving vehicles through a network of highways. Functional classification carries with it expectations about roadway design, including its speed, capacity and relationship to existing and future land use development. Federal legislation continues to use functional classification in determining eligibility for funding under the Federal-aid program. Transportation agencies describe roadway system performance, benchmarks and targets by functional classification. As agencies continue to move towards a more performance-based management approach, functional classification will be an increasingly important consideration in setting expectations and measuring outcomes for preservation, mobility and safety.

As a result of the decennial census, the US Census Bureau issues urban area boundary maps. Transportation agencies should review these census boundaries and either accept them as is or adjust them for transportation planning purposes.

This guidance document provides recommended practices for assigning functional classifications and adjusting urban area boundaries concerning roadways that Federal, State and local transportation entities own and operate. Assigning functional classifications and adjusting urban area boundaries requires work elements common to many large-scale business enterprises: there are technical methods and tools to create an efficient and cost-effective end product; there are also procedural elements that require coordination and negotiation across agencies and individuals. This guidance document encompasses both of these elements.

This guidance document also recognizes and describes the implications of how our roadway systems are configured, used and planned for today:

- The Federal-aid system has matured significantly. A significant proportion of new functional classification designations are likely to occur from improvements and modifications to existing roads and corridors, rather than from designations on new roadways and corridors.

- In conducting functional classification updates, State departments of transportation (DOTs) strive for consensus with potentially dozens of agencies, including metropolitan and rural planning agencies, local officials and FHWA Division Offices.
- Geospatial technologies and travel demand forecasting capabilities have advanced significantly, greatly lowering the cost of data storage and increasing analysis capabilities.
- Planners and engineers have expanded roadway design options significantly, especially in areas where providing for non-motorized travel is a priority. Transportation agencies have developed their own classification terms to describe these options.

1.1 Overview

This guidance document builds upon and updates the three most recent guidance documents circulated by FHWA, namely:

- Highway Functional Classification: Concepts, Criteria and Procedures, March 1989
- Updated Guidance for the Functional Classification of Highways Memorandum, October 14, 2008[1]
- Highway Functional Classification: Concepts, Criteria and Procedures, 2013

1. All functional classification categories exist in both urban and rural areas. Specifically, all Principal Arterial sub-categories and all Collector sub-categories are recognized in both urban and rural forms. The following functional classification categories should be used:

    a. Principal Arterial
        i. Interstate
        ii. Other Freeways & Expressways (OF&E) (**Figure 1-1**)
        iii. Other (OPA)
    b. Minor Arterial
    c. Collector
        i. Major Collector
        ii. Minor Collector
    d. Local

Figure 1-1: Principal Arterial - Other Freeways & Expressways

Source: Ohio Statewide Imagery Program

2. States should assign functional classifications according to how the roadway is functioning in the current year only. Regarding future routes, roads should be functionally classified with the existing system if they are included in an approved Statewide Transportation Improvement

[1] http://www.fhwa.dot.gov/policy/ohpi/hpms/fchguidance.cfm

Program (STIP) and are expected to be under construction within the STIP timeframe of 4 years or less. Where applicable, the same classification should be given to both the future route and the existing route it replaces until the future route is constructed.

Figure 1-2: HOV Lane on Interstate 95 in Woodbridge, VA

Source: www.roadstothefuture.com

3. Ramps and other non-mainline roadways are to be assigned the same functional classification as the highest functional classification among the connecting mainline roadways served by the ramp. (**Figure 1-2**)

Roadways that fall into the Principal Arterials- Other Freeways & Expressways category are limited-access roadways that serve travel in a similar way to the Interstates.

4. Principal Arterial roadways (**Figure 1-3**) serve a large percentage of travel between cities and other activity centers, especially when minimizing travel time and distance is important. For this reason, Arterials typically are roadways with high traffic volumes and are frequently the route of choice for intercity buses and trucks. The spacing of Arterials in urban areas is closely related to the trip-end density characteristics of activity centers in urban areas. The spacing of these facilities (in larger urban areas) may vary from less than 1 mile in highly developed central business areas to 5 miles or more in the sparsely developed urban fringes.

Figure 1-3: Other Principal Arterial in California

Source: Akos Szoboszlay

Transportation agencies apply a variety of treatments to preserve mobility and increase the person throughput of Urban Arterials, including ramp metering, high-occupancy-vehicle (HOV) lanes and high-occupancy toll lanes.

Principal Arterials play a unique role in providing a high degree of mobility and carrying a high proportion of travel for long distance trips. These facilities carry the major portion of trips entering and leaving an activity center, as well as the majority of through movements that either go directly through or bypass the area.

SECTION 2. CONCEPTS

2.1 Introduction

This section of the guidance document presents the concepts underlying the functional classification of roadways. It first introduces the two primary transportation functions of roadways, namely mobility and access, and describes where different categories of roadways fall within a continuum of mobility-access. In addition to mobility and access, other factors that can help determine the proper category to which a particular roadway belongs — such as trip length, speed limit, volume, and vehicle mix — are discussed in this section.

While Arterials, Collectors and Locals span the full range of roadway functions, the Federal functional classification scheme uses additional classification categories to describe these functions more precisely. Distinctions between access-controlled and full-access roadways; the urban and rural development pattern; and subtleties between "major" and "minor" sub-classifications are key considerations when determining the Federal functional classification category to which a particular roadway belongs. The process of determining the correct functional classification of a particular roadway is as much art as it is science. Therefore, a real-world example is presented to help make the discussion of functional classification more readily understood.

The flow of traffic throughout a roadway network is similar to the flow of blood through the human circulatory system or the trunk and branch system of a tree. The units moving through the system (blood cells, nutrients, vehicles, etc.) move through progressively smaller network elements as they approach their destination.

2.2 Functional Classification Concepts

Most travel occurs through a network of interdependent roadways, with each roadway segment moving traffic through the system towards destinations. The concept of functional classification defines the role that a particular roadway segment plays in serving this flow of traffic through the network. Roadways are assigned to one of several possible functional classifications within a hierarchy according to the character of travel service each roadway provides. Planners and engineers use this hierarchy of roadways to properly channel transportation movements through a highway network efficiently and cost effectively.

2.2.1 Access versus Mobility

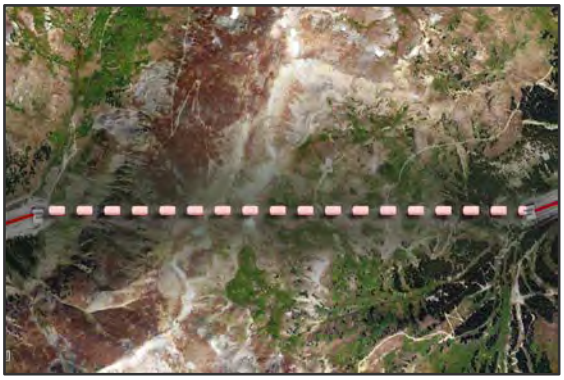
Roadways serve two primary travel needs: access to/egress from specific locations and travel mobility. While these two functions lie at opposite ends of the continuum of roadway function, most roads provide some combination of each.

- Roadway mobility function: Provides few opportunities for entry and exit and therefore low travel friction from vehicle access/egress
- Roadway accessibility function: Provides many opportunities for entry and exit, which creates potentially higher friction from vehicle access/egress

These two roles can be best understood by examining two extreme examples (**Figure 2-1** and **Figure 2-2**).

First, consider the Eisenhower Tunnel west of Denver, CO. Located along Interstate 70, the Eisenhower Tunnel runs under the Continental Divide in the Rocky Mountains and is one of the longest tunnels in the United States. Motorists that travel through the tunnel are en route to a distant location and are using the roadway completely to serve their "mobility" needs. There is no location that is immediately "accessible" to the roadway.

Figure 2-1: Aerial View of the Eisenhower (and Johnson) Tunnels along I-70, west of Denver, CO



Source: Google Earth Pro, June 27, 2012

Figure 2-2: View from Inside the Eisenhower Tunnel

Source: Creative Commons Attribution-Share Alike 2.0 generic license; Benjamin Clark

Next, consider the example of Eisenhower Court in North Platte, NE (**Figure 2-3**). This roadway is travelled almost exclusively by the individuals that live along the roadway. Hence, the roadway entirely provides "accessibility" and offers almost nothing in terms of mobility.

Figure 2-3: Aerial View of Eisenhower Court, North Platte, NE

Source: Google Earth Pro, June 27, 2012

Figure 2-4 depicts the neighborhood around Eisenhower Street in Carrollton, TX. This roadway serves both mobility needs (the residents that live along the side streets that intersect Eisenhower Street use it for some level of north/south mobility) and land access needs (there are both residential and commercial properties located along the roadway).

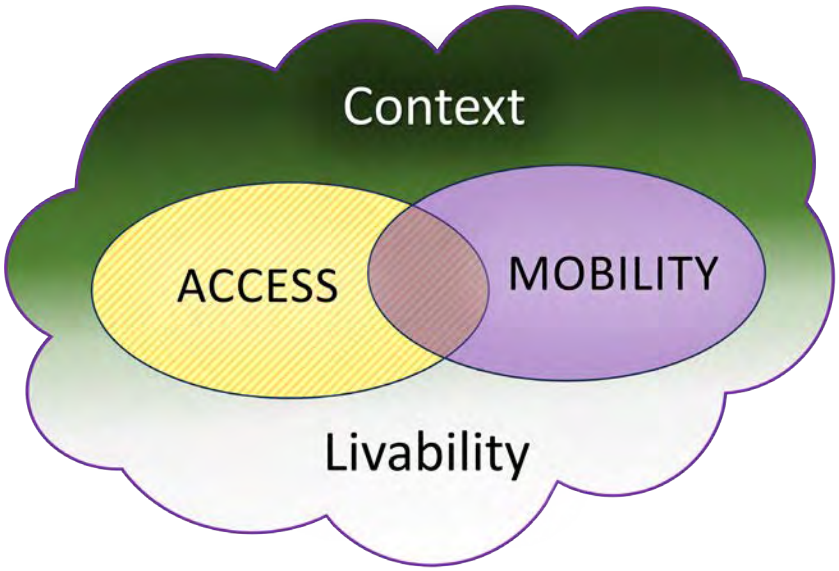
For nomenclature purposes, those roadways that provide a high level of mobility are called "Arterials"; those that provide a high level of accessibility are called "Locals"; and those that provide a more balanced blend of mobility and access are called "Collectors."

Figure 2-4: Aerial View of Eisenhower Street in Carrollton, TX

Source: Google Earth Pro, June 28, 2012

The relationship between mobility and land access is illustrated in **Figure 2-5**. Arterials provide mostly mobility; Locals provide mostly land access; and Collectors strike a balance between the two. Context Sensitivity and Livability form the environment through which Mobility and Access should be considered. These concepts are discussed in greater detail in Chapter 5.

Figure 2-5: Illustration of Access-Mobility Dynamic



Source: FHWA

While most roadways offer both "access to property" and "travel mobility" services, it is the roadway's primary purpose that defines the classification category to which a given roadway belongs.[2]

[2] The use of the term "Local" roadway in the context of functional classification is separate from the use of the term in a jurisdictional context. While it is true that roadways functionally classified as "Local" are often under the jurisdiction of a "local" entity (i.e., incorporated city), Local Roads are not always under local jurisdiction. Other roadway classifications, including Arterials, may also be under the jurisdiction of a local (i.e., non-state) entity.

A route is a linear path of connected roadway segments, all with the same functional classification designation. For example, the roadways along a given Arterial route may — and often do — comprise multiple named roadways or state numbered facilities. Similarly, different segments of a given named roadway, or even more likely a given state numbered route, may belong to different functional classification categories, depending on the character of travel service that each segment provides. In the example to the right, the minor Arterial "route" consists of a portion of Tyler Street and a portion of Dalton Avenue (shown in green). East of Dalton Avenue, Tyler Street (shown in brown) is a Minor Collector.

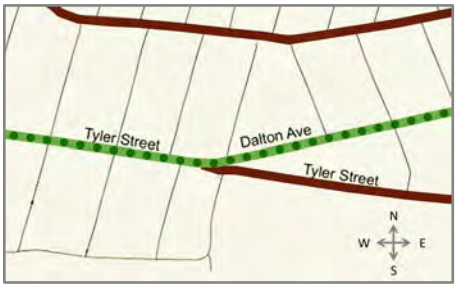
2.3 Other Important Factors Related to Functional Classification

The distinction between "mobility and accessibility" is important in assigning functional classifications to roadways. There are a few additional factors to consider, and these are discussed here.

Efficiency of Travel: Trip makers will typically seek out roadways that allow them to travel to their destinations with as little delay as possible and by the shortest travel time. Arterial roadways provide this kind of service, often in the form of fully or partially controlled access highways, with no or very few intersecting roadways to hinder traffic flow. Therefore, a high percentage of the length of a long-distance trip will be made on Arterials. In contrast, travelers making shorter trips tend to use Local and/or Collector roadways for a much higher proportion of the trip length than Arterial roads.

Collectors: As their name implies, Collectors "collect" traffic from Local Roads and connect traffic to Arterial roadways. Collector routes are typically shorter than Arterial routes but longer than Local Roads. Collectors often provide traffic circulation within residential neighborhoods as well as commercial, industrial, or civic districts (see **Figure 2-6**).

Figure 2-6: Collector Example

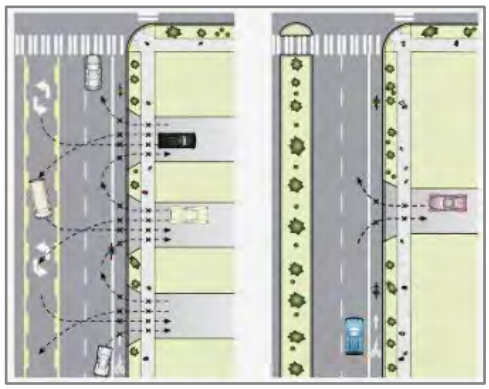


Source: CDM Smith

Access Points: Arterials primarily serve long-distance travel and are typically designed as either access controlled or partially access controlled facilities with limited locations at which vehicles can enter or exit the roadway (typically via on- or off-ramps). In instances where limited or partial access control is not provided, signalized intersections are used to control traffic flow, with the Arterial given the majority of the green time.

In growing urban areas, Arterial roadways often experience an ever-increasing number of driveway access points. This high degree of accessibility decreases mobility. To address this issue and restore the carrying capacity of through traffic on these roadways, transportation agencies apply access management principles, such as driveway consolidation and median installations (see **Figure 2-7**).

Figure 2-7: Example of Access Points



Source: Ohio DOT, http://www.ahtd.info/basic_bike-walk_facility_design

In contrast, roadways classified as "Local" provide direct access to multiple properties.

Speed Limit: In general, there is a relationship between posted speed limits and functional classification. Arterials typically have higher posted speed limits as vehicles encounter few or no at-grade intersections. The absence of cross-traffic and driveways allows for higher rates of speed, which provides mobility, especially for long-distance travel. In contrast, because their primary role is to provide access, Locals are lined with intersecting access points in the form of driveways, intersecting roadways, cross walks and transfer points for buses and other modes. Due to the frequency of traffic turns, speed limits are kept low to promote safe traffic operations. Speed limits on any non-access-controlled roadways are also influenced by the mix of vehicles and modes that use them.

Route Spacing: Directly related to the concept of channelization of traffic throughout a network is the concept of distance (or spacing) between routes. For a variety of reasons, it is not feasible to provide Arterial facilities to accommodate every possible trip in the most direct manner possible or in the shortest amount of time. Ideally, regular and logical spacing between routes of different classifications exists. Arterials are typically spaced at greater intervals than Collectors, which are spaced at much greater intervals than Locals. This spacing varies considerably for different areas; in densely populated urban areas, spacing of all route types is smaller and generally more consistent than the spacing in sparsely developed rural areas. Geographic barriers greatly influence the layout and spacing of roadways.

Usage (Annual Average Daily Traffic [AADT] Volumes and Vehicle Miles of Travel [VMT]): Arterials serve a high share of longer distance trips and daily vehicle miles of travel. In rural areas, Arterials typically account for approximately half of the daily vehicle miles of travel; in urban areas, this percentage is often higher. Collectors account for the next largest percentage of travel. Urban Area Collectors account for somewhat less (5 to 15 percent), while the percentage for Rural Area Collectors is typically in the 20 to 30 percent range. Lastly, by definition, Local Roads in rural areas typically serve very low density, dispersed developments with relatively low traffic volume. In contrast, the Urban Local Road network, with higher roadway centerline miles and higher density spacing, serves denser land uses and therefore accounts for a larger proportion of travel than its rural counterpart.

When determining the functional classification of a given roadway, no single factor should be considered alone. For example, US 290 runs through the heart of Giddings, TX. Within the city, the roadway has many intersecting roadways, provides direct access to a number of densely developed commercial and residential properties and has speed limits as low as 35 mph. However, because the roadway is one of the two most direct routes of travel between Austin and Houston and a large percentage of its traffic consists of longer distance trips, the roadway is best classified as an Arterial.

While there is a general relationship between the functional classification of a roadway and its annual average daily traffic volume, two roads that carry the same traffic volume may actually serve very different purposes and therefore have different functional classifications. Conversely, two roadways in different parts of a State may have the same functional classification but carry very different traffic volumes. This is particularly applicable among urban areas with very different populations — an Arterial within a remote city with a population of 50,000 is likely to have a much lower traffic volume than an Arterial within a city of 1 million people.

Traffic volumes, however, can come into play when determining the proper functional classification of a roadway "on the border" of a functional classification group (for example, trying to determine whether a roadway should be classified as a Collector or Local). Furthermore, AADT can often be used as a "tie-breaker" when trying to determine which of two (or more) similar and roughly parallel roadways should be classified with a higher (or lower) classification than the other. For example, suppose that two parallel roadways appear to serve the function of a Collector. Classifying both of them as a Collector could lead to undesirable redundancy in the functional classification network. All other things being equal, the roadway with the higher AADT would generally be given the Collector classification, while its companion would be given a Local classification (**Figure 2-8**).

*Exceptions to the "connectivity" guideline exist. There are locations where an Arterial can "dead end" and not connect to another Arterial. A common example is when an Arterial terminates at a regionally significant land use (such as an airport or military installation). Another example is a Collector that serves a major residential community and, for topological or other constraining reasons, does not connect at one end to another similarly or higher classified roadway. Many other examples can also be found within coastal communities. Wings Neck Road in Bourne, MA (**Figure 2-10**) is a good example. Other obvious examples are Interstate spur routes (the highest type of Arterial, to be discussed in the following section) that terminate at a city street in the downtown of an urban area.*

Number of Travel Lanes: Roadways are designed and constructed according to their expected function. If a roadway is expected to function as an Arterial, it is designed for high capacity, with multiple travel lanes. In general, Arterials are more likely to have a greater number of travel lanes than Collectors, and Collectors are more likely to have a greater number of travel lanes than Locals. It should also be noted that the relationship between functional classification and number of lanes is stronger in urban areas than it is in rural areas.

Regional and Statewide Significance: Highly significant roadways connect large activity centers and carry longer-distance travel between and through regions and States. Arterials carry the vast majority of trips that travel through a given State, while Local Roads do not easily facilitate statewide travel.

Table 2-1 summarizes the relationship between the factors previously described and the three broad categories of functional classification.

Table 2-1: Relationship between Functional Classification and Travel Characteristics

Functional Classification	Distance Served (and Length of Route)	Access Points	Speed Limit	Distance between Routes	Usage (AADT and DVMT)	Significance	Number of Travel Lanes
Arterial	Longest	Few	Highest	Longest	Highest	Statewide	More
Collector	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Local	Shortest	Many	Lowest	Shortest	Lowest	Local	Fewer

2.4 System Continuity

Because the roadway system is an interconnected network of facilities channeling traffic in both directions from Arterials to Collectors, then to Locals and back again, the concept of continuity of routes is important to recognize. A basic tenet of the functional classification network is continuity — a roadway of a higher classification should not connect to a single roadway of a lower classification.[3] Generally speaking, Arterials should only connect to other Arterials. However, there are exceptions to this guideline. Arterials can end or link to very large regional traffic generators or can connect to multiple parallel roads of lower functional classification that, together, provide the same function and capacity as an Arterial.

In **Figure 2-9**, the Arterials (represented by black lines) only connect to other Arterials. Collectors (represented by the red lines), only connect to Arterials or other Collectors. Lastly, Local Roads (represented by the green lines) can connect to any type of roadway.

Exceptions to the "connectivity" guideline exist. A Collector can serve a major residential community and — for topological or other constraining reasons —not connect at one end to another similar or higher classified roadway. Other examples can also be found, especially within coastal communities. Wings Neck Road in Bourne, MA (**Figure 2-10**) is a good example. **Figure 2-11** is an example of an Interstate spur terminating at a city street in Holyoke, MA.

[3] A higher functionally classified road can "split" its traffic between two lower-level roads, with different levels of access and mobility.

SECTION 3. CRITERIA

3.1 Definitions and Characteristics

The previous section provided a general overview of the functional classification categories of Arterial, Collector and Local. For Federal functional classification purposes, this section breaks these categories down further to stratify the range of mobility and access functions that roadways serve. Additionally, the physical layout and the official designation of some roadways dictate the classification of certain roadways.

Access control is a key factor in the realm of functional classification. All Interstates are "limited access" or "controlled access" roadways. The use of the word "access" in this context refers to the ability to access the roadway and not the abutting land use—these roadways provide no "access" to abutting land uses. Access to these roadways is controlled or limited to maximize mobility by eliminating conflicts with driveways and at-grade intersections that would otherwise hinder travel speed. Access to these roadways is limited to a set of controlled locations at entrance and exit ramps. Travelers use a much lower functionally classified roadway to reach their destination.

3.1.1 Interstates

Interstates are the highest classification of Arterials and were designed and constructed with mobility and long-distance travel in mind. (**Figure 3-1**) Since their inception in the 1950's, the Interstate System has provided a superior network of limited access, divided highways offering high levels of mobility while linking the major urban areas of the United States.

Figure 3-1: Example of Interstate

Source: CDM Smith

Determining the functional classification designation of many roadways can be somewhat subjective, but with the Interstate category of Arterials, there is no ambiguity. Roadways in this functional classification category are officially designated as Interstates by the Secretary of Transportation, and all routes that comprise the Dwight D. Eisenhower National System of Interstate and Defense Highways belong to the Interstate functional classification category and are considered Principal Arterials.

3.1.2 Other Freeways & Expressways

Roadways in this functional classification category look very similar to Interstates. While there can be regional differences in the use of the terms 'freeway' and 'expressway', for the purpose of functional classification the roads in this classification have directional travel lanes are usually separated by some type of physical barrier, and their access and egress points are limited to on- and off-ramp locations or a very limited number of at-grade intersections. Like Interstates, these roadways are designed and constructed to maximize their mobility function, and abutting land uses are not directly served by them.

3.1.3 Other Principal Arterials

Figure 3-2: Example of Other Principal Arterial

Source: CDM Smith

These roadways serve major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. Unlike their access-controlled counterparts, abutting land uses can be served directly. Forms of access for Other Principal Arterial roadways include driveways to specific parcels and at-grade intersections with other roadways. (**Figure 3-2**) For the most part, roadways that fall into the top three functional classification categories (Interstate, Other Freeways & Expressways and Other Principal Arterials) provide similar service in both urban and rural areas. The primary difference is that there are usually multiple Arterial routes serving a particular urban area, radiating out from the urban center to serve the surrounding region. In contrast, a rural area of equal size would be served by a single Arterial.

Table 3-1 presents a few key differences between the character of service that urban and rural Arterials provide.

Table 3-1: Characteristics of Urban and Rural Arterials

Urban	Rural
• Serve major activity centers, highest traffic volume corridors and longest trip demands • Carry high proportion of total urban travel on minimum of mileage • Interconnect and provide continuity for major rural corridors to accommodate trips entering and leaving urban area and movements through the urban area • Serve demand for intra-area travel between the central business district and outlying residential areas	• Serve corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel • Connect all or nearly all Urbanized Areas and a large majority of Urban Areas with 25,000 and over population • Provide an integrated network of continuous routes without stub connections (dead ends)

3.1.4 Minor Arterials

Minor Arterials provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher Arterial system. In an urban context, they interconnect and augment the higher Arterial system, provide intra-community continuity and may carry local bus routes. **(Figure 3-3)**

Figure 3-3: Example of Urban Minor Arterial

Source: Unsourced photo

In rural settings, Minor Arterials should be identified and spaced at intervals consistent with population density, so that all developed areas are within a reasonable distance of a higher-level Arterial. Additionally, Minor Arterials in rural areas are typically designed to provide relatively high overall travel speeds, with minimum interference to through movement. The spacing of Minor Arterial streets may typically vary from 1/8- to 1/2-mile in the central business district (CBD) and 2 to 3 miles in the suburban fringes. Normally, the spacing should not exceed 1 mile in fully developed areas (see **Table 3-2**).

Table 3-2: Characteristics of Urban and Rural Minor Arterials

Urban	Rural
• Interconnect and augment the higher-level Arterials • Serve trips of moderate length at a somewhat lower level of travel mobility than Principal Arterials • Distribute traffic to smaller geographic areas than those served by higher-level Arterials • Provide more land access than Principal Arterials without penetrating identifiable neighborhoods • Provide urban connections for Rural Collectors	• Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service • Be spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an Arterial roadway • Provide service to corridors with trip lengths and travel density greater than those served by Rural Collectors and Local Roads and with relatively high travel speeds and minimum interference to through movement

3.1.5 Major and Minor Collectors

Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. Within the context of functional classification, Collectors are broken down into two categories: Major Collectors and Minor Collectors. All Collectors, regardless of whether they are within a rural area or an urban area, may be sub-stratified into *major* and *minor*

categories. The determination of whether a given Collector is a Major or a Minor Collector is frequently one of the biggest challenges in functionally classifying a roadway network.

In the rural environment, Collectors generally serve primarily intra-county travel (rather than statewide) and constitute those routes on which (independent of traffic volume) predominant travel distances are shorter than on Arterial routes. Consequently, more moderate speeds may be posted.

The distinctions between Major Collectors and Minor Collectors are often subtle. Generally, Major Collector routes are longer in length; have lower connecting driveway densities; have higher speed limits; are spaced at greater intervals; have higher annual average traffic volumes; and may have more travel lanes than their Minor Collector counterparts. Careful consideration should be given to these factors when assigning a Major or Minor Collector designation. In rural areas, AADT and spacing may be the most significant designation factors. Since Major Collectors offer more mobility and Minor Collectors offer more access, it is beneficial to reexamine these two fundamental concepts of functional classification. Overall, the total mileage of Major Collectors is typically lower than the total mileage of Minor Collectors, while the total Collector mileage is typically one-third of the Local roadway network (see **Table 3-3**).

Table 3-3: Characteristics of Urban and Rural Major Collectors

MAJOR COLLECTORS	
Urban	**Rural**
• Serve both land access and traffic circulation in higher density residential, and commercial/industrial areas • Penetrate residential neighborhoods, often for significant distances • Distribute and channel trips between Local Roads and Arterials, usually over a distance of greater than three-quarters of a mile • Operating characteristics include higher speeds and more signalized intersections	• Provide service to any county seat not on an Arterial route, to the larger towns not directly served by the higher systems and to other traffic generators of equivalent intra-county importance such as consolidated schools, shipping points, county parks and important mining and agricultural areas • Link these places with nearby larger towns and cities or with Arterial routes • Serve the most important intra-county travel corridors

MINOR COLLECTORS	
Urban	**Rural**
• Serve both land access and traffic circulation in lower density residential and commercial/industrial areas • Penetrate residential neighborhoods, often only for a short distance • Distribute and channel trips between Local Roads and Arterials, usually over a distance of less than three-quarters of a mile • Operating characteristics include lower speeds and fewer signalized intersections	• Be spaced at intervals, consistent with population density, to collect traffic from Local Roads and bring all developed areas within reasonable distance of a Collector • Provide service to smaller communities not served by a higher-class facility • Link locally important traffic generators with their rural hinterlands

3.1.6 Local Roads

Locally classified roads account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land. Bus routes generally do not run on Local Roads. They are often designed to discourage through traffic. As public roads, they should be accessible for public use throughout the year.

Local Roads are often classified by default. In other words, once all Arterial and Collector roadways have been identified, all remaining roadways are classified as Local Roads (see **Table 3-4**).

Table 3-4: Characteristics of Urban and Rural Local Roads

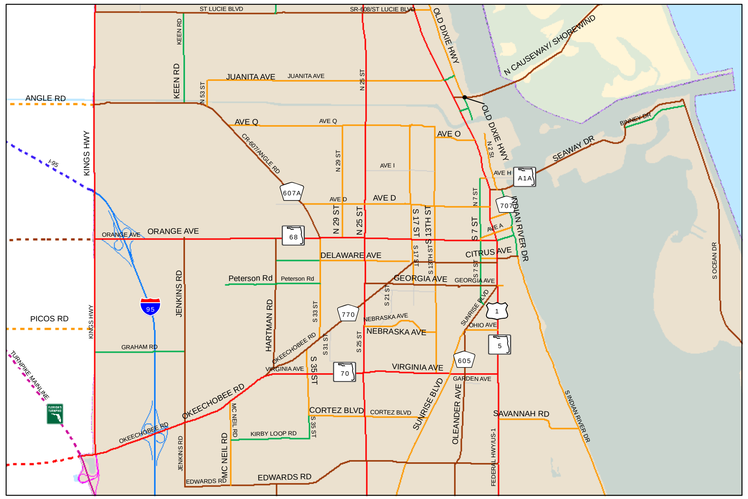
Urban	Rural
• Provide direct access to adjacent land • Provide access to higher systems • Carry no through traffic movement • Constitute the mileage not classified as part of the Arterial and Collector systems	• Serve primarily to provide access to adjacent land • Provide service to travel over short distances as compared to higher classification categories • Constitute the mileage not classified as part of the Arterial and Collector systems

3.2 Putting it all Together

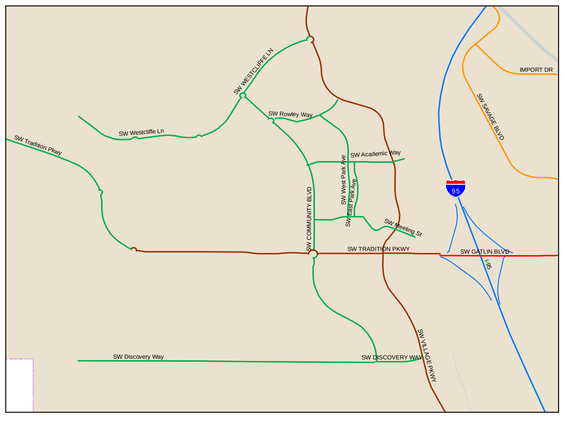
The functional classification system groups roadways into a logical series of decisions based upon the character of travel service they provide. **Figure 3-4** presents this process, starting from assigning the function of an Arterial by its level of access (limited or full) or Non-Arterial (full access).

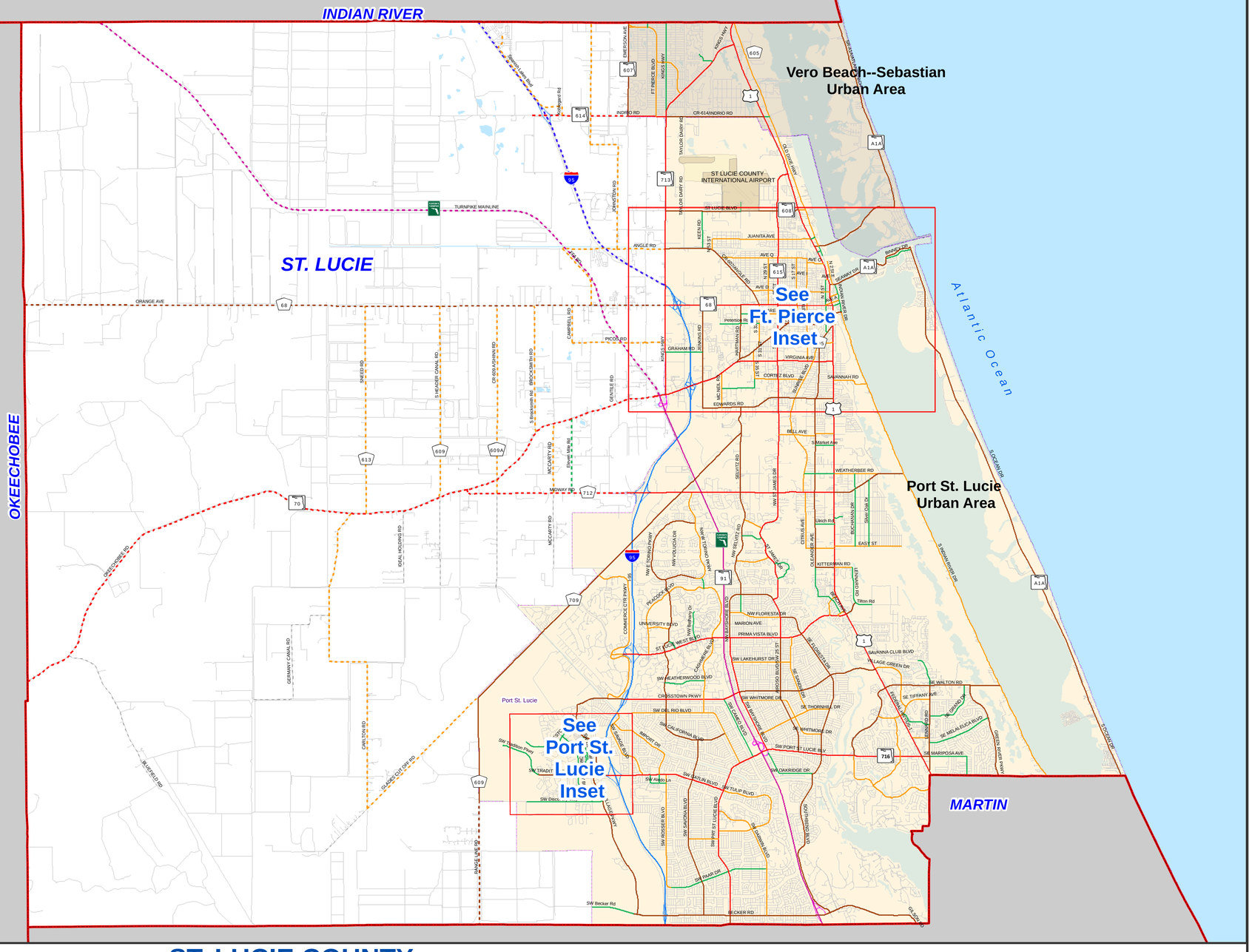
2020 FEDERAL FUNCTIONAL CLASSIFICATION AND URBAN AREA BOUNDARIES MAP

Ft. Pierce Inset



Port St. Lucie Inset





*****2020 D4 Smoothed Urban Areas*****

- Port St. Lucie UA
- Vero Beach -- Sebastian UA

*****Federal Functional Classifications*****

- 01 - Principal Arterial-Interstate RURAL
- 02 - Principal Arterial-Expressway RURAL
- 04 - Principal Arterial-Other RURAL
- 06 - Minor Arterial RURAL
- 07 - Major Collector RURAL
- 08 - Minor Collector RURAL
- 09 - Local RURAL
- 11 - Principal Arterial-Interstate URBAN
- 12 - Principal Arterial-Freeway and Expressway URBAN
- 14 - Principal Arterial-Other URBAN
- 16 - Minor Arterial URBAN
- 17 - Major Collector URBAN
- 18 - Minor Collector (Fed Aid) URBAN
- 19 - Local URBAN

ST. LUCIE COUNTY

Recommended By:

Florida Department of Transportation — *Date*

St. Lucie Transportation Planning Organization — *Date*

Approved By:

Federal Highway Administration — *Date*

Prepared By:

FLORIDA DEPARTMENT OF TRANSPORTATION in cooperation with the US DEPARTMENT OF TRANSPORTATION

File Created: 09/03/2024

INSIDE	LOCAL_NM	FROM_	TO_	COMMENTS	URBAREA	FC_2024	NETL	FC_2024_DESC	CRITERIA_1	CRITERIA_2	JUSTIFY	REQ_BY	REQ_NUM	TYPE_CHG	CHG_JUMP	ID_DATE
County	Curtis King Blvd	St Lucie Blvd	Terminus before parking lot	Access to airport	Port St. Lucie, FL	18	0.246	URBAN – Minor Collector	5	-	Access to airports, seaports, and major rail terminals.	County	16	ADDITION		9/2/2024
County	Eleven Mile Rd	Midway Rd	Okeechobee Rd	Connect minor res to majr rd	RURAL	08	1.999	RURAL – Minor Collector	11	-	Access to rural diffused property use areas and lower density urban residential and commercial/industrial areas.	County	10	ADDITION		9/2/2024
Ft Pierce	Juanita Ave (ext)	US-1	Old Dixie Hwy	Continuity and connection	Port St. Lucie, FL	17	0.133	URBAN – Major Collector	8	-	Interconnection of major thoroughfares.	County	3	ADDITION	Y	8/26/2024
County	Koblegard Rd	SR-814/Indrio Rd	Spanish Lakes Blvd	Minor Collector in nature - req Min Art	RURAL	18	0.247	URBAN – Minor Collector	11	-	Access to rural diffused property use areas and lower density urban residential and commercial/industrial areas.	County	1	ADDITION		8/26/2024
Ft Pierce	N 2 St	Seaway Dr	Northern Terminus	Connect commercial, major pub	Port St. Lucie, FL	17	0.647	URBAN – Major Collector	5	-	Access to airports, seaports, and major rail terminals.	County	6	ADDITION	Y	8/26/2024
Port St Lucie	NE Lazy River Pkwy	NE St James Dr (S ent)	NE St James Dr (N ent)	connection to locals	Port St. Lucie, FL	18	0.940	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		3/19/2024
Port St Lucie	NW Bethany Dr	St. Lucie West Blvd	NW Blue Lake Dr	connection to locals	Port St. Lucie, FL	18	0.804	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		3/4/2024
Port St Lucie	NW Country Club Dr	St. Lucie West Blvd	NW California Blvd	connection to major roads	Port St. Lucie, FL	18	0.338	URBAN – Minor Collector	8	9	Interconnection of major thoroughfares. | Interconnection of minor thoroughfares.	FDOT		ADDITION		6/21/2024
Port St Lucie	NW St James Blvd	NW Selvitz Rd	NW St James Dr	onnection to major rds	Port St. Lucie, FL	18	0.545	URBAN – Minor Collector	8	9	Interconnection of major thoroughfares. | Interconnection of minor thoroughfares.	FDOT		ADDITION		6/21/2024
Ft Pierce/County	Peterson Rd	RA at Carlyle Way	S 33 St	connection to locals and minor rd	Port St. Lucie, FL	18	1.092	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		3/19/2024
County	S Brocksmith Rd	SR-70/Okeechobee Rd	CR-68/Orange Ave	Connect for new dev to maj rd	RURAL	07	3.395	RURAL – Major Collector	11	-	Access to rural diffused property use areas and lower density urban residential and commercial/industrial areas.	County	9	ADDITION	Y	9/2/2024
County/Ft Pierce	S Market Ave	Oleander Ave	US-1	Connect mjr and commerce dev	Port St. Lucie, FL	18	0.506	URBAN – Minor Collector	11	-	Access to rural diffused property use areas and lower density urban residential and commercial/industrial areas.	County	15	ADDITION		9/2/2024
Port St Lucie	SE Calais St	SE Brevard Ave	SE Mariposa Ave	connection to locals	Port St. Lucie, FL	18	0.251	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		2/1/2024
Port St Lucie	SE Calais St	SE Ibis Ave	SE Brevard Ave	connection to locals	Port St. Lucie, FL	18	0.211	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		2/1/2024
County	Silver Oak Dr	Easy St	E Midway Rd	Connection to res and minor rd	Port St. Lucie, FL	18	1.787	URBAN – Minor Collector	9	11	Interconnection of minor thoroughfares. | Access to rural diffused property use areas and lower density urban residential and commercial/industrial areas.	County	8	ADDITION		9/2/2024

INSIDE	LOCAL_NM	FROM_	TO_	COMMENTS	URBAREA	FC_2024	NETL	FC_2024_DESC	CRITERIA_1	CRITERIA_2	JUSTIFY	REQ_BY	REQ_NUM	TYPE_CHG	CHG_JUMP	ID_DATE
County	Spanish Lakes Blvd	Kings Hwy/SR-713	Cll de Lagos	connection to locals	Port St. Lucie, FL	18	0.470	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		11/21/2023
County	Spanish Lakes Blvd	Koblegard Rd	Dulce Real Ave	Connects to locals - req Minor Art	RURAL	07	2.891	RURAL – Major Collector	11	-	Access to rural diffused property use areas and lower density urban residential and commercial/industrial areas.	County	02a	ADDITION	Y	8/26/2024
County	Sunny Ln	US-1	Old US-1	New connect for diffused prop	Port St. Lucie, FL	18	0.103	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	County	12	ADDITION		9/2/2024
Port St Lucie	SW Academic Way	SW Community Blvd	SW Battle Lake Dr	connection to minor art and businesses	Port St. Lucie, FL	18	0.584	URBAN – Minor Collector	8	9	Interconnection of major thoroughfares. | Interconnection of minor thoroughfares.	FDOT		ADDITION		6/21/2024
Port St Lucie	SW Aledo Ln	SW Aledo Ln	SW Rosser Blvd	connection to locals	Port St. Lucie, FL	18	0.445	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		11/21/2023
Port St Lucie	SW Becker Rd	UAB	WS Village Pkwy	pending/connection to major/minor rds	Port St. Lucie, FL	18	1.134	URBAN – Minor Collector	8	9	Interconnection of major thoroughfares. | Interconnection of minor thoroughfares.	FDOT		ADDITION		6/21/2024
Port St Lucie	SW Brigantine Pl	SW Aledo Ln	SW Gatlin Blvd	connection to locals	Port St. Lucie, FL	18	0.211	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		2/28/2024
Port St Lucie	SW Discovery Way	SW Brookside Falls Way	SW Community Blvd	connection to minor rds	Port St. Lucie, FL	18	1.762	URBAN – Minor Collector	8	9	Interconnection of major thoroughfares. | Interconnection of minor thoroughfares.	FDOT		ADDITION		6/21/2024
Port St Lucie	SW East Park Ave	SW Meeting St	SW Academic Way	connection to locals	Port St. Lucie, FL	18	0.368	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		2/27/2024
Port St Lucie	SW Import Dr	SW Aledo Ln	SW Gatlin Blvd	connection to commercial	Port St. Lucie, FL	18	0.246	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		2/27/2024
Port St Lucie	SW Meeting St	SW Community Blvd	SW Batte Lake Dr	connection to Minor Art and businesses	Port St. Lucie, FL	18	0.665	URBAN – Minor Collector	8	9	Interconnection of major thoroughfares. | Interconnection of minor thoroughfares.	FDOT		ADDITION		6/21/2024
Port St Lucie	SW Rowley Way	RA for SW Community Rd	Village Pkwy	connection to locals	Port St. Lucie, FL	18	0.425	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		2/28/2024
Port St Lucie	SW Tradition Pkwy	RA for SW Stony Creek Way	RA for SW Creswell St	connection to locals	Port St. Lucie, FL	18	1.367	URBAN – Minor Collector	8	9	Interconnection of major thoroughfares. | Interconnection of minor thoroughfares.	FDOT		ADDITION		6/21/2024
Port St Lucie	SW West Park Ave	SW Rowley Way	SW Meeting St	connection to locals	Port St. Lucie, FL	18	0.745	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		2/27/2024
Port St Lucie	SW Westcliffe Ln	RA for SW Tremonte Ave	End of PVMT	connection to locals	Port St. Lucie, FL	18	0.800	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		2/27/2024
County	Tilton Rd	Prima Vista Blvd	Silver Oaks Dr	connecting new res	Port St. Lucie, FL	18	0.451	URBAN – Minor Collector	11	-	Access to rural diffused property use areas and lower density urban residential and commercial/industrial areas.	County	5	ADDITION		9/2/2024

INSIDE	LOCAL_NM	FROM_	TO_	COMMENTS	URBAREA	FC_2024	NETL	FC_2024_DESC	CRITERIA_1	CRITERIA_2	JUSTIFY	REQ_BY	REQ_NUM	TYPE_CHG	CHG_JUMP	ID_DATE
Ft Pierce/County	Tropical Isle Way	Federal Highway/US-1	Tropical Isles Cir	connection to locals	Port St. Lucie, FL	18	0.242	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	FDOT		ADDITION		2/27/2024
County	Ulrich Rd	Oleander Ave	US-1	Connectivity to minor rd	Port St. Lucie, FL	18	0.513	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	County	4	ADDITION		9/2/2024
Ft. Pierce	W Weatherbee Rd	Oleander Ave	US-1	Connection to major rd and res	Port St. Lucie, FL	18	0.505	URBAN – Minor Collector	8	11	Interconnection of major thoroughfares. | Access to rural diffused property use areas and lower density urban residential and commercial/industrial areas.	County	07a	ADDITION		8/26/2024
Ft. Pierce	W Weatherbee Rd	Sunrise Blvd	W Weatherbee Rd	Residential	Port St. Lucie, FL	18	0.297	URBAN – Minor Collector	9	-	Interconnection of minor thoroughfares.	County	07b	ADDITION		8/26/2024

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

AGENDA ITEM SUMMARY

Board/Committee:	St. Lucie TPO Board
Meeting Date:	October 2, 2024
Item Number:	10a
Item Title:	Port St. Lucie Boulevard Construction and Programming Update
Item Origination:	Unified Planning Work Program (UPWP)
UPWP Reference:	Task 3.3 - Transportation Improvement Program
Requested Action:	Discuss and provide comments
Staff Recommendation:	It is recommended that the issues delaying the completion of the widening of Port St. Lucie Boulevard from Gatlin Boulevard to Becker Road are discussed and comments are provided.

Attachments

- Staff Report
- Transportation Improvement Program Project Summary Pages

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

MEMORANDUM

TO: St. Lucie TPO Board

FROM: Peter Buchwald
Executive Director

DATE: September 25, 2024

SUBJECT: Port St. Lucie Boulevard Construction and Programming Update

---

BACKGROUND

At the St. Lucie TPO Board Meeting on August 7th, it was identified that the completion of the construction of Port St. Lucie Boulevard from Gatlin Boulevard to Alcantarra Boulevard has been delayed significantly which is causing hardship for the City of Port St. Lucie (City) and its residents. It was suggested at the meeting that the Florida Department of Transportation District 4 (FDOT) be requested to appear at the next TPO Board meeting to discuss the delay. FDOT will provide an update on the ongoing and future construction projects to widen Port St. Lucie Boulevard from Gatlin Boulevard to Becker Road.

ANALYSIS

The widening of Port St. Lucie Boulevard from Gatlin Boulevard to Becker Road has been a TPO Priority Project for a number of years. To advance the construction of the widening, the project was divided into the following segments, each of which is experiencing issues which delay their completion:

Gatlin Boulevard to Darwin Boulevard (FM# 431752-4)
- Under construction by the City

Darwin Boulevard to Alcantarra Boulevard (FM# 431752-6)
- Under construction by FDOT

Alcantarrra Boulevard to Paar Drive (FM# 431752-5)

- To be constructed by FDOT
- Project is funded for construction in FY 2024/25
- Transportation Improvement Program Project Summary Page is attached

Paar Drive to Becker Road (FM# 431752-3)

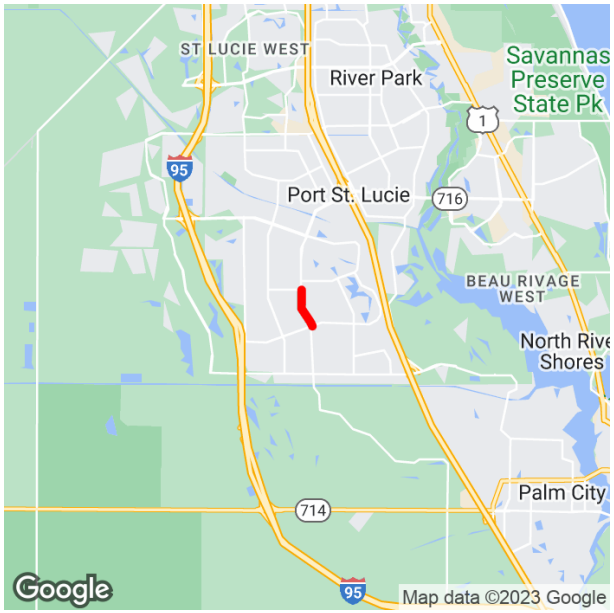
- Under design by FDOT
- To be constructed by FDOT
- Project is advance funded by the City in FY 2025/26 to be repaid in FY 2027/28
- Transportation Improvement Program Project Summary Page is attached

As part of the update, FDOT will explain the issues that each of the segments is experiencing which delay their completion.

RECOMMENDATION

It is recommended that the issues delaying the completion of the widening of Port St. Lucie Boulevard from Gatlin Boulevard to Becker Road are discussed and comments are provided.

PORT ST. LUCIE BLVD FROM SOUTH OF PAAR DR TO SOUTH OF ALCANTARRA BLVD
4317525 Non-SIS

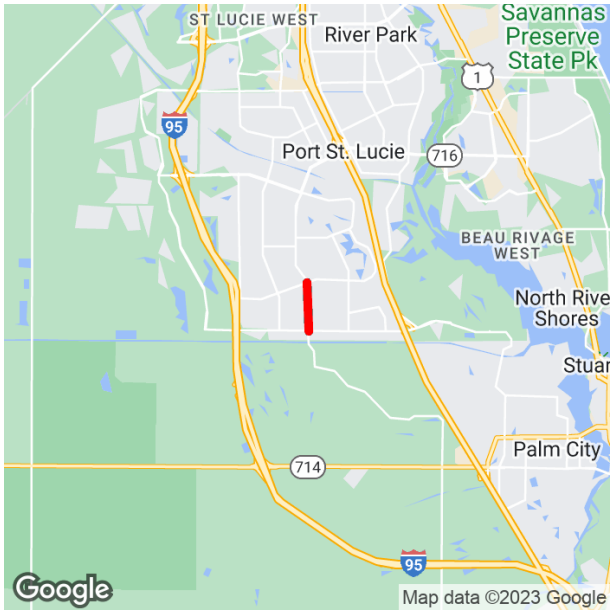


Prior Year Cost: 3,097,063
Future Year Cost: 0
Total Project Cost: 63,964,544
LRTP: Page 8-2

Project Description: ADD LANES & RECONSTRUCT
Extra Description: 2020 TPO PRIORITY #2; WIDENING FROM 2 TO 4 LANES. DESIGN AND RIGHT OF WAY ON 431752-2 DENING FROM 2 TO 4 LANES LFA WITH CITY OF PORT ST. LUCIE. 56-01 LF UWHCA 62-03 LF FOR CEI FOR UWHCA CITY OF PORT ST. LUCIE --NEW SEQUENCE 52-02 WAS CREATED TO PULL FROM APPROPRIATE BUDGET CATEGORY (NON-PROGRAM 87)
Lead Agency: MANAGED BY FDOT
From: SOUTH OF PAAR DR
County: ST. LUCIE
To: SOUTH OF ALCANTARRA BLVD
Length: 1.076
Phase Group: RAILROAD & UTILITIES, CONSTRUCTION

Phase	Fund Code	2025	2026	2027	2028	2029	Total
RRU	LF	1,807,473	0	0	0	0	1,807,473
CST	ACSU	960,459	0	0	0	0	960,459
CST	CD23	2,000,000	0	0	0	0	2,000,000
CST	CIGP	5,548,619	0	0	0	0	5,548,619
CST	LFP	3,548,619	0	0	0	0	3,548,619
CST	SU	3,260,440	0	0	0	0	3,260,440
CST	TRIP	2,214,712	0	0	0	0	2,214,712
CST	TRWR	1,475,727	0	0	0	0	1,475,727
		20,816,049					**20,816,049**

PORT ST. LUCIE BLVD FROM BECKER RD TO PAAR DRIVE
4317523 Non-SIS



Prior Year Cost: 3,097,063
Future Year Cost: 0
Total Project Cost: 63,964,544
LRTP: Page 8-2

Project Description: ADD LANES & RECONSTRUCT
Extra Description: 2022 TPO PRIORITY #3. WIDENING FROM 2 TO 4 LANES.
Lead Agency: MANAGED BY FDOT **From:** BECKER RD
County: ST. LUCIE **To:** PAAR DRIVE
Length: 1.119
Phase Group: PRELIMINARY ENGINEERING, RIGHT OF WAY, RAILROAD & UTILITIES, CONSTRUCTION, ENVIRONMENTAL, LOCAL ADVANCE REIMBURSE

Phase	Fund Code	2025	2026	2027	2028	2029	Total
ROW	SU	0	272,744	14,984	0	0	287,728
RRU	SU	0	0	100,000	0	0	100,000
CST	LFR	0	18,594,737	0	0	0	18,594,737
CST	SU	0	1,315,912	0	0	0	1,315,912
CST	TRIP	0	1,158,318	0	0	0	1,158,318
LAR	ACPR	0	0	0	2,317,855	0	2,317,855
LAR	CARU	0	0	0	78,214	0	78,214
LAR	CM	0	0	0	718,692	0	718,692
LAR	SA	0	0	0	7,178,276	0	7,178,276
LAR	SU	0	0	0	4,431,700	0	4,431,700
LAR	TRIP	0	0	0	1,403,873	0	1,403,873
LAR	TRWR	0	0	0	2,466,127	0	2,466,127
			21,341,711	**114,984**	**18,594,737**		**40,051,432**

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

AGENDA ITEM SUMMARY

Board/Committee:	St. Lucie TPO Board
Meeting Date:	October 2, 2024
Item Number:	10b
Item Title:	Autonomous Vehicle (AV) Study Update
Item Origination:	Unified Planning Work Program (UPWP)
UPWP Reference:	Task 3.10 – Automated/Connected/Electric/ Shared-Use (ACES) Vehicles Planning
Requested Action:	Discuss and provide comments.
Staff Recommendation:	It is recommended that comments be provided regarding the AV Study Update.

Attachments
- Staff Report
- AV Study Update

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

MEMORANDUM

TO: St. Lucie TPO Board

THROUGH: Peter Buchwald
Executive Director

FROM: Marceia Lathou
Transit/ACES Program Manager

DATE: September 20, 2024

SUBJECT: Autonomous Vehicle (AV) Study Update

BACKGROUND

Transportation planning implies a focus on the future. Many experts believe the future of transportation is Autonomous Vehicles (AVs). AVs, also known as driverless cars, are already being tested on streets and freeways in major U.S. cities. According to the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA), "The continuing evolution of automotive technology aims to deliver even greater safety benefits than earlier technologies."

Transformative technologies are characterized by inflection points – time periods that signal significant change. Inflection points often occur when innovation, economics, and regulatory frameworks converge. Despite significant progress, AVs have not yet reached an inflection point of mass adoption. Nevertheless, due to the speed of technological advancements, governments must factor AVs into the planning process.

The TPO has developed several plans and studies related to AVs including the *ACES (Automated/Connected/Electric/Shared-Use) for Transit Vehicles Study*, the *Electric Vehicle Charging Station Plan*, the *Sustainable Transportation Plan*, and the *Micro-Mobility Plan,* among others. The TPO's FY 2024/25 – 2025/26 Unified Planning Work Program (UPWP) calls for an AV Study Update.

ANALYSIS

The AV Study Update analyzes trends in autonomous trucking, robo-taxis/AV shuttles, and Advanced Driver Assistance technologies. The following are selected takeaways:

- Autonomous trucks are poised to become the first driverless vehicles deployed in significant numbers on public roads.
- Waymo and Cruise, leaders in the AV space, are deploying robo-taxis on city streets and freeways.
- Tesla is scheduled to make an announcement regarding its robo-taxi initiative soon.
- NHTSA wants to make certain automated features mandatory in new vehicles.
- A driverless shuttle has operated in the Tradition area of Port St. Lucie.
- AV technology adoption is supported by many of the goals outlined in the TPO's SmartMoves 2045 Long Range Transportation Plan (LRTP).
- The benefits of AVs generally outweigh the disadvantages.
- Governments can help shape the future of AVs.

The TPO's 2050 LRTP is intended to include an in-depth consideration of the role of AVs in the future of the transportation system in the TPO area.

RECOMMENDATION

It is recommended that comments be provided regarding the AV Study Update.

Autonomous Vehicle (AV) Study Update

October 2024

DRAFT

Prepared by the St. Lucie TPO

Prepared by the St. Lucie Transportation Planning Organization (TPO)

Contact: Marceia Lathou
St. Lucie TPO
466 SW Port St. Lucie Boulevard, Suite 111
Port St. Lucie, Florida, 34953
Telephone: (772) 462-1671
Email: lathoum@stlucieco.org

The St. Lucie TPO satisfies the requirements of various nondiscrimination laws and regulations including Title VI of the Civil Rights Act of 1964. Public participation is welcome without regard to race, color, national origin, age, sex, religion, disability, income, or family status. Persons wishing to express their concerns about nondiscrimination should contact Marceia Lathou, the Title VI/ADA Coordinator of the St. Lucie TPO, at 772-462-1593 or via email at lathoum@stlucieco.org.

Kreyol Ayisyen: Si ou ta renmen resevwa enfòmasyon sa a nan lang Kreyòl Aysiyen, tanpri rele nimewo 772-462-1593.

Español: Si usted desea recibir esta informaciòn en español, por favor llame al 772-462-1593.

CONTENTS

AUTONOMOUS VEHICLES (AVs)

AVs have merged into the transportation system at a slower than anticipated pace. In 2021, the U.S. Department of Transportation (DOT) prepared the *Autonomous Vehicle Comprehensive Plan* to help stakeholders prepare for a revolution. Fast forward to 2024, and the complexity of AV technology is characterized by baby steps instead of revolutionary strides.

Major automakers who once pledged to produce AVs have walked back on these commitments. No automaker has produced a fully autonomous vehicle for mass consumption although many manufacturers are producing higher levels of automation. Following is a list of AV hierarchies:

Level 0 No driving automation, though the vehicle may have some automated features.

Level 1 Limited driver assistance. The car can control either speed or steering, but not both at the same time. An example is cruise control.

Level 2 Automated cars can control both speed and steering at the same time, but only under certain conditions. The driver must remain ready to take over driving if needed.

Level 3 The car is able to drive on its own under certain conditions but will alert the driver of the need to take control.

Level 4 The car is able to handle most normal driving conditions. If the car encounters a situation it cannot handle, the car will pull over or stop.

Level 5 The car can drive itself in all conditions.

Currently, the most advanced passenger AVs exist in the form of robo-taxis.

ROBO-TAXIS

Robo-taxis are generally Level 4 autonomy vehicles travelling within geofenced areas relying on maps provided by a transportation company. These maps are kept current with assistance from the vehicle itself, which reports back on roadway conditions.

Waymo and Cruise are leading players in the field of robo-taxis. The companies are at different stages of deployment and have different approaches to technology and testing.

Waymo, a subsidiary of Alphabet Inc., has been testing autonomous vehicles for over a decade. These vehicles have accumulated millions of miles in both simulated and real-world conditions. Waymo vehicles are equipped with an array of sensors, including LiDAR, radar, and cameras, and use a sophisticated AI (artificial intelligence) system to navigate and make decisions. As Waymo describes the process, the robo-taxi dubbed Waymo Driver ". . . understands how a car moves differently than a cyclist, pedestrian, or other object, and then predicts the many possible paths that the other road users may take, all in the blink of an eye."

Cruise, owned by General Motors, is also heavily invested in autonomous vehicle technology and has been testing its vehicles extensively, particularly in San Francisco. Cruise vehicles also use a comprehensive suite of sensors and AI to navigate and operate safely.

Cruise is known for its focus on urban environments and complex driving scenarios. Because Cruise has been actively testing its vehicles in dense urban areas, unique challenges arise. Consequently, the company has reported a variety of safety incidents.

Cruise recently paused all its driverless operations after a series of safety incidents in California. The California Department of Motor Vehicles (DMV) subsequently suspended Cruise's autonomous vehicle deployment and driverless testing permits. The DMV provided Cruise with the steps needed to apply to reinstate its suspended permits. Cruise has since resumed limited operations albeit with enhanced safety procedures. Uber recently announced a partnership with Cruise.

Waymo has reported relatively low numbers of safety incidents and has an extensive safety and testing program. Waymo currently offers rides in driverless passenger cars in several major cities, mostly on city streets, but testing is occurring on freeways as well. Uber recently announced a partnership with Waymo.

Tesla is poised to enter the robo-taxi space with Elon Musk, Tesla's CEO, touting a major announcement coming in early October 2024.

Musk has spoken about Tesla's potential to launch an autonomous ride-hailing service. This service would allow Tesla owners to earn income by having their vehicles operate as self-driving taxis when not in use. Tesla's robo-taxi concept would rely on Tesla's FSD (Full Self Driving) technology and is aimed at creating a network of autonomous vehicles that can provide transportation services on demand.

AV SHUTTLES

Whereas robo-taxis operate similar to Uber or Lyft, AV shuttles operate more like fixed-route buses, running along specified routes and stopping at specified locations. AV shuttles operate throughout the nation including in St. Lucie County. The St. Lucie County shuttle is called TIM (Tradition in Motion).

Tradition in Motion (TIM)

Beep, the operator of TIM, is an autonomous mobility solutions provider of driverless shuttles and fully managed services in both private and public communities. According to Beep's website, the personnel in Beep's Command Center located in Orlando continuously monitor the movement and operation of their shuttles nationwide using cameras installed inside and outside the shuttles. Human attendants onboard can communicate with the command center at any time should the need arise. The vehicles are 100-percent electric with no steering wheel or pedals and can travel up to 15mph.

TIM has operated in the Tradition area of Port St. Lucie, which is west of I-95 generally between Crosstown Parkway and Becker Road. Tradition is a master planned community consisting mostly of single-family homes and townhouses with several large apartment complexes, and commercial plazas. The TIM network is part of Tradition's larger plan called the T-Trail, which will consist of miles of trailheads for shuttle riders, bicyclists and pedestrians.

AUTONOMOUS TRUCKING

The first widespread deployment of driverless technology was initially assumed to be ride-hailing but self-driving trucks are now poised to become the first driverless vehicles deployed in significant numbers on public roads.

Whereas robo-taxis generally start out with a human operator onboard, autonomous trucks tend to be operated remotely, controlled from other sources such as satellites and GPS. A device implanted in the truck allows a human operator to “see” and control the truck’s movements.

Economic incentives exist to develop autonomous trucking, among them a shortage of truck drivers, a shortage that is forecast to worsen. A factor in this shortage is the challenge of being away from home for extended periods on long-haul routes. Although autonomous trucking is expected to benefit long-haul trucking there is expected to remain a need for drivers to deliver goods and services locally.

Autonomous trucks are already appearing on highways in some stage of testing. According to the National Conference of State Legislators, Florida is one of 29 states that have enacted legislation related to testing autonomous trucks.

Autonomous technology will create efficiencies by allowing for truck platooning: convoys of trucks spaced much closer together than would be permitted with full human control. According to a Library of Congress research guide, “By 2027 fully autonomous trucks, including truck platoons of two or more trucks in which all trucks have a driver, but only the driver of the lead truck has full control of the vehicle, are anticipated to appear on highways.”

A few companies are frequently cited as front-runners in the autonomous trucking space. These include Aurora, Plus.ai, Gatik, and Kodiak Robotics. Each of these companies is leading in different aspects of autonomous trucking technology, and their leadership status can vary based on specific criteria such as technology readiness, deployment scale, and industry partnerships. As technology continues to evolve, these leaders may shift, as new contenders enter the field and existing contenders drop out. Both Aurora and Kodiak Robotics claim they will have driverless trucks on highways within the next year.

Texas, a hub of AV trucking, can provide lessons learned to other states in their acceptance of the technology. Many factors have drawn AV trucking operators to Texas. These include business-friendly regulations, workforce capabilities, vast highway infrastructure, multimodal freight activities, strong research and development community, encouragement of public-private partnerships, and favorable weather conditions.

Texas embraced AV innovation early on. The state legislature passed its first regulation of autonomous vehicle technology in 2017. A statewide task force was created that provides Texans with a single, unified source of information regarding the coordination and advancement of automated technologies across the state. Members of the task force include representatives from other state agencies and public entities, as well as key industry stakeholders. The statewide task force now boasts numerous subcommittees.

Texas' location as a traditional transportation hub is yet another factor attracting autonomous trucking. The state is home to several truck routes between major cities that cannot be completed in a single day due to driver hours-of-service limitations. Such truck routes are especially suited for AV trucking.

DRIVER ASSISTANCE TECHNOLOGIES

Many of today's new vehicles feature "driver assist" capabilities that increase safety for drivers, passengers, and pedestrians. These technologies can steer, accelerate, and brake a vehicle autonomously. Some features are designed to warn of a crash while others are designed to take action to avoid a crash.

Today's driver assist technologies are designed with the assumption that the driver will continuously monitor the driving environment and will be prepared to take control of the vehicle as needed. According to the National Highway Traffic Safety Administration (NHTSA) "There are no vehicles available for purchase today that allow drivers to disengage from the driving task. Vehicles with partial automation capabilities are the highest level of automation that the public can purchase today."

NHTSA highlights the following types of driver automation assistance:

Forward Collision Warning

Detects a potential collision with a vehicle ahead and provides a warning to the driver. This is a NHTSA recommended safety technology.

Lane Departure Warning

Monitors the vehicle's position within the driving lane and alerts the driver as the vehicle approaches or crosses lane markers. This is a NHTSA recommended safety technology.

Rear Cross Traffic Warning

Warns the driver of a potential collision, while in reverse, that may be outside the view of the backup camera.

Blind Spot Warning

Warns of a vehicle in the driver's blind spot.

In addition to the above-described systems, there are partially automated systems that include features like adaptive cruise control and lane assist technologies.

According to a recent press release, NHTSA is developing proposed rule-making that would require automatic emergency braking (AEB) and pedestrian AEB systems on passenger cars and light trucks.

As described in the press release, an AEB system uses various sensor technologies and sub-systems that work together to detect when the vehicle is close to crashing, and then automatically applies the vehicle brakes if the driver has not done so or applies more braking force to supplement the driver's braking as necessary to avoid or mitigate the severity of the crash.

The proposed rule is expected to dramatically reduce crashes under certain conditions. NHTSA projects that this rule, if finalized, would save at least 360 lives a year and reduce injuries by at least 24,000 annually. In addition, these AEB systems would result in significant reductions in property damage caused by rear-end crashes. Many crashes would be avoided altogether, while others would be less destructive.

Source: GAO (photo). | GAO-24-106255

LONG RANGE TRANSPORTATION PLAN (LRTP) COMPLIANCE

AVs could lead to reductions in traffic congestion, increased mobility for all, and connectivity among vehicles and infrastructure. To reap these benefits, AV pilot programs are being established throughout the country.

The University of Oregon developed *Autonomous Vehicles: A Guidebook for Cities* as a tool to help stakeholders prepare for and respond to autonomous vehicle testing, pilots, and deployments in their respective jurisdictions. Stakeholders include the public, AV developers, state and local governments, and nonprofit organizations.

A key takeaway from the University's guidebook is that before launching any AV pilot program, stakeholders must determine if their goals and their community's vision align with AVs. In other words, do not adopt technology for technology's sake. The following section analyzes goals in the TPO's SmartMoves 2045 Long Range Transportation Plan (LRTP) which align with AV deployment.

Goal One: Support Economic Activities

Autonomous Trucking

Trucking supports local economies, and AVs would facilitate trucking. AV trucks could improve supply chain management and could allow vehicles to operate in complex environments 24/7.

Congestion is one of the highest costs for freight movement, and AVs could dramatically reduce congestion by enabling truck platooning which could reduce energy costs as well.

AV trucking could reduce labor expenses which could make business operations more productive.

Robo-taxis/AV Shuttles

AV shuttles/robo-taxis could promote increased access to goods and services.

The ability of AVs to reduce car accidents, injuries and fatalities could itself result in economic savings.

AVs will impact land use. Currently, a significant amount of land is needed for parking traditional autos when not in use. This land could be freed up for more productive purposes.

Since AVs tend to drive more efficiently than humans, AV shuttles/robo-taxis could potentially reduce traffic congestion. According to auto insurer Progressive, the most common causes of traffic congestion are car accidents, road debris, road construction, rush hours, and phantom traffic jams. Reduced traffic congestion generally leads to economic growth.

Driver Assistance Technologies

Driver assistance technologies hold the potential to reduce traffic crashes and save thousands of lives each year, the economic benefits of which are enormous. These benefits can be quantified in terms of insurance savings, reduced healthcare costs, and reallocation of emergency-related resources, among others.

Goal Two: Provide Travel Choices

Autonomous Trucking

Autonomous trucking will allow freight companies to operate vehicles 24/7 thus enabling them to avoid rush hours whenever possible. Fewer trucks on the road would lead to reductions in traffic congestion. Less traffic congestion would improve the range of travel times available to non-freight movement.

Robo—taxis/AV Shuttles

AVs could enable commuters to be productive while traveling, consequently resulting in greater control of personal time and choices for where people choose to work. With their abilities to operate 24/7, AVs would result in more flexibility in travel times and less congestion during commute hours, thus improving travel time reliability for all users.

Driver Assistance Technologies

Based on their improvements to safety, driver assistance technologies would support drivers in travelling during all hours of the day. For example, many senior drivers choose not to drive at night due to glare from oncoming headlights or streetlights or even during the day due to blinding sun. Driver assistance technologies also support drivers whose capacity to drive is diminished, for instance through fatigue or distraction.

Goal Three: Maintain the Transportation System

Autonomous Trucking

Most AVs are electric vehicles (EVs). A drawback of EVs is they generally weigh more than gas-powered vehicles, thus producing more wear and tear on roadways. This could result in greater deterioration of roadway surfaces and could also impact bridges, parking garages, parking lots, and driveways.

Robo-taxis/AV Shuttles

Robo-taxis/AV shuttles, being EVs, will produce more wear and tear on roadway infrastructure because EVs are generally heavier in weight than gas-powered vehicles. However, robo-taxis/AV shuttles could reduce the overall number of vehicles on the road, thus mitigating the impact of the added weight.

Driver Assistance Technologies

Driver Assistance Technologies will make driving easier, more efficient, safer, and more accessible. As driving becomes more efficient and safer more drivers will opt to drive, leading to greater deterioration of roadway surfaces.

Goal Four: Provide Equitable, Affordable, and Sustainable Urban Mobility

Autonomous Trucking

To the extent driverless trucks reduce shipping costs and to the extent those savings are passed on to consumers, driverless trucks could contribute to equity and affordability.

The sustainability aspect of driverless trucks relates to the potential for decreased gas consumption in their capacity as EVs.

In general, technology becomes more affordable as it matures, and it is conceivable that small trucking companies could eventually have driverless trucks in their fleets.

Because no human is needed behind the wheel to drive or operate these trucks and because there is a shortage of truck drivers, autonomous trucks could lead to goods being distributed in rural areas that previously were not served.

Robo—taxis/AV Shuttles

AVs could provide greater freedom for persons with disabilities, those without driver's licenses, older adults who can no longer drive, and for persons who simply choose not to drive.

In terms of affordability, owning a personal car is more expensive than the occasional use of Uber/Lyft, which in turn is more expensive than public transit.

AV shuttles, if more cost efficient than traditional transit, could benefit residents of rural areas, where the operation of traditional transit is cost prohibitive.

In terms of sustainability, in general, EVs are more environmentally friendly than their gas-powered counterparts.

Driver Assistance Technologies

A safer driving environment could encourage walking and bicycling, especially in historically disadvantaged communities where studies show that crashes involving vulnerable road users are more prevalent.

Automobile crashes themselves create huge economic burdens across a wide spectrum of society. Reducing this burden would be a social benefit.

Goal Five: Improve Safety and Security

Autonomous Trucking

Common causes of truck accidents are driver fatigue or driver distraction. By eliminating human factors, autonomous trucking could improve roadway safety. Autonomous trucks, being newer vehicles, also would benefit from the latest tech advances in safety that assist in crash avoidance and prevention.

Technology presents the challenges of cybersecurity and privacy concerns. Vehicle connectivity exacerbates these concerns. Vehicle connectivity is expected to be a hallmark of autonomous trucking. Connected vehicles use vehicle-to-vehicle, vehicle-to-infrastructure, and infrastructure-to-vehicle communication to exchange information between vehicles, drivers, the roadside, bicyclists and pedestrians. To earn public trust, cybersecurity and privacy concerns due to vehicle connectivity must be addressed.

Robo-taxis/AV Shuttles

AVs could improve safety by eliminating human error, the main cause of car accidents. Robo-taxis/AV shuttles could further enhance roadway safety by virtue of getting more cars and drivers off the roads.

Security is more problematic. AVs are expected to be connected vehicles, a connectivity which relies on computer software. All software is vulnerable to interference by bad actors. On the other hand, gas-powered vehicles are becoming increasingly connected, so this vulnerability would not be limited to AVs.

Driver Assistance Technologies

Automobile manufacturers are making continuous improvements in safety, resulting in newer vehicles being safer than older vehicles. When driver assistance technologies are made mandatory, the safety gap between older and newer vehicles will widen.

The extent to which driver assistance technologies are wireless could present cybersecurity issues. These issues could be mitigated by proactive security enhancements.

AV BENEFITS/DISADVANTAGES

Autonomous trucking benefits:

- Cost savings due to more efficient deliveries
- Reduced pollution due to more efficient deliveries
- Increased safety due to reduced chance of human error
- Reduced fuel consumption due to truck platooning which reduces wind resistance
- 24/7 operations
- Connectivity among vehicles and infrastructure

Autonomous trucking disadvantages:

- Job losses in certain categories
- Implementation expense
- Obsolescence due to rapid changes in technology
- Cybersecurity risks
- Computer malfunction risks
- Delays resulting from AV's inability to react appropriately under novel driving conditions

Robo-taxis/AV Shuttles advantages:

- Help seniors stay independent
- Help persons with disabilities achieve independence
- Reduce the number and duration of traffic jams
- Improve safety since most traffic accidents result from human error
- Decreased fuel consumption since most AVs are electric
- Lower transportation costs due to reductions in human labor costs
- Improved connectivity among vehicles and infrastructure
- Reduced strain on the healthcare system due to fewer traffic accidents

Robo-taxis/AV Shuttles disadvantages:

- Elimination of certain jobs
- Social isolation for passengers who value driver interaction
- Delays since AVs may not react appropriately under novel driving conditions
- Potential disruptions to emergency vehicles
- Cybersecurity risks
- Higher initial costs

Driver Assistance Technologies benefits:

- Improved traffic safety
- Reduced fuel consumption in their capacity as newer vehicles
- Decreased insurance costs
- Increased mobility

Driver Assistance Technologies disadvantages:

- Decreased driver awareness of surroundings
- Potential for computer malfunctions
- Increased manufacturing costs
- Potential for distracted driving

RECOMMENDATIONS

Although AV deployment is driven by the private sector, governments are partners in the process. Governments can provide guidance, implement best practices, conduct research, initiate pilot programs, and develop assistance to help stakeholders plan and make the investments needed to be proactive about technology.

Technology, especially in its beginning stages, has its fair share of issues and concerns. Even in its mature stages, technology solves certain problems and creates others. Therefore, the pros, cons, and unintended consequences of AVs must be monitored. Considerations that merit further study by governments include:

- Safety for all road users
- Shifts in travel behavior and mode choice
- Environmental justice and affordability
- Transportation network impacts
- Land use impacts
- Energy use
- Emergency services impacts
- Workforce impacts
- Regulatory frameworks

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

AGENDA ITEM SUMMARY

Board/Committee:	St. Lucie TPO Board
Meeting Date:	October 2, 2024
Item Number:	10c
Item Title:	St. Lucie County Sustainable Mobility Infrastructure Study
Item Origination:	Unified Planning Work Program (UPWP)
UPWP Reference:	Task 3.9 - Environmental Planning Task 4.2 - Intergovernmental Planning and Coordination
Requested Action:	Discuss and provide comments
Staff Recommendation:	It is recommended that the Study is discussed and input and comments are provided.

Attachments
- Staff Report
- Presentation

St. Lucie Transportation Planning Organization

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, Florida 34953
772-462-1593 www.stlucietpo.org

MEMORANDUM

TO: St. Lucie TPO Board

FROM: Peter Buchwald
Executive Director

DATE: September 25, 2024

SUBJECT: St. Lucie County Sustainable Mobility Infrastructure Study

---

BACKGROUND

St. Lucie County received a Federal grant through the Community Development Block Grant Mitigation Program (CDBG-MIT) to conduct a Sustainable Mobility Infrastructure Study incorporating land use planning, comprehensive planning, regional mitigation planning, and resiliency planning. The Corradino Group was retained by the County to complete the Study and will provide a presentation for input and comments as part of the public/community participation efforts of the Study.

ANALYSIS

One of the outcomes of the Study pertinent to the St. Lucie TPO will be to revise the County Right-of-Way Protection Map based on sea level rise projections, the need for and the locations of stormwater capacity, elevated street sections, and public infrastructure mitigation. In addition, the outcomes of the Study will inform the TPO's 2050 Long Range Transportation Plan.

RECOMMENDATION

It is recommended that the Study is discussed and input and comments are provided.

Sustainable Mobility Infrastructure Study

St. Lucie TPO Board

October 2, 2024

Purpose of the Study

Federal Project Description:

- Develop a Countywide Mobility Infrastructure Plan incorporating: land use planning, comprehensive planning, regional mitigation planning, and resiliency planning

Funding:

- funding to St. Lucie County via State of Florida Department of Economic Opportunity (DEO), now incorporated as a division of the Florida Department of Commerce
- federally funded by Community Development Block Grant Mitigation Program (CDBG-MIT)
- federal funding to St. Lucie County is $210,000 with $40,000 match by St. Lucie County

Federal and County Outcome:

- Revise the County Right-of-Way Protection Map, based on: sea level rise projections, need for and location of stormwater capacity, elevated street sections, public infrastructure mitigation.

Transportation Resiliency: Climate & Growth to Year 2100

123

Planning Horizon	Climate Projections	Growth and Transportation Projections
	Natural Systems: • long-term effects • small short-term human effect	Human Systems: • in-migration, outmigration, birth rate, life expectancy • policy dependencies • technological dependencies • macro socio-behavioral dependencies
2045	• sea-level rise forecasts • storm event tidal surge forecast • rainfall inundation forecasts	• population forecasts • employment forecasts • trip generation trends • modal split trends • existing + committed development
2070	• sea-level rise forecasts • storm event tidal surge forecast • rainfall inundation forecasts *pervious area can be affected by land use changes*	• population forecasts out of range • employment forecasts out of range • modal split unknows – range of modes undefined • land development dependent on policy and economics
2100		

Planning for Climate Change

ROW Plan Dependencies - Natural

Flood Height Scenarios							
		2040		2070		2100	
Sea Level Rise	NOAA Sea Level Rise (SLR) Projections Virginia Key	Intermediate Low 0.69 ft.	Intermediate High 1.41 ft.	Intermediate Low 1.25 ft.	Intermediate High 3.28 ft.	Intermediate Low 1.77 ft.	Intermediate High 6.00 ft.
High Tide	NOAA tidal gage Cape Canaveral Station #8721604 5-Year High (height: NAVD)	4.55 ft.	4.55 ft.	4.55 ft.	4.55 ft.	4.55 ft.	4.55 ft.
Non-Event Height	SLR + High Tide	5.25 ft.	5.96 ft.	5.80 ft.	7.83 ft.	6.32 ft.	10.55 ft.
Storm Surge	NOAA SLOSH Model Maximum of Minimum (MOM) South Florida Basin (2016) Category 5 Hurricane (NAVD)	15.80 ft.	15.80 ft.	15.80 ft.	15.80 ft.	15.80 ft.	15.80 ft.
Event Height	SLR + Hurricane Surge	16.49 ft.	17.21 ft.	17.05 ft.	19.08 ft.	17.57 ft.	21.80 ft.
100-Year Storm 72-Hour Rainfall Event	South Florida Water Management District (SFWMD) and USGS *"Future Extreme Rainfall Change Factors"*	50th percentile 1.20 intensification factor 17.76 inches maximum		75th percentile 1.45 intensification factor 21.46 inches maximum		100th percentile 1.45 intensification factor 21.46 inches maximum	

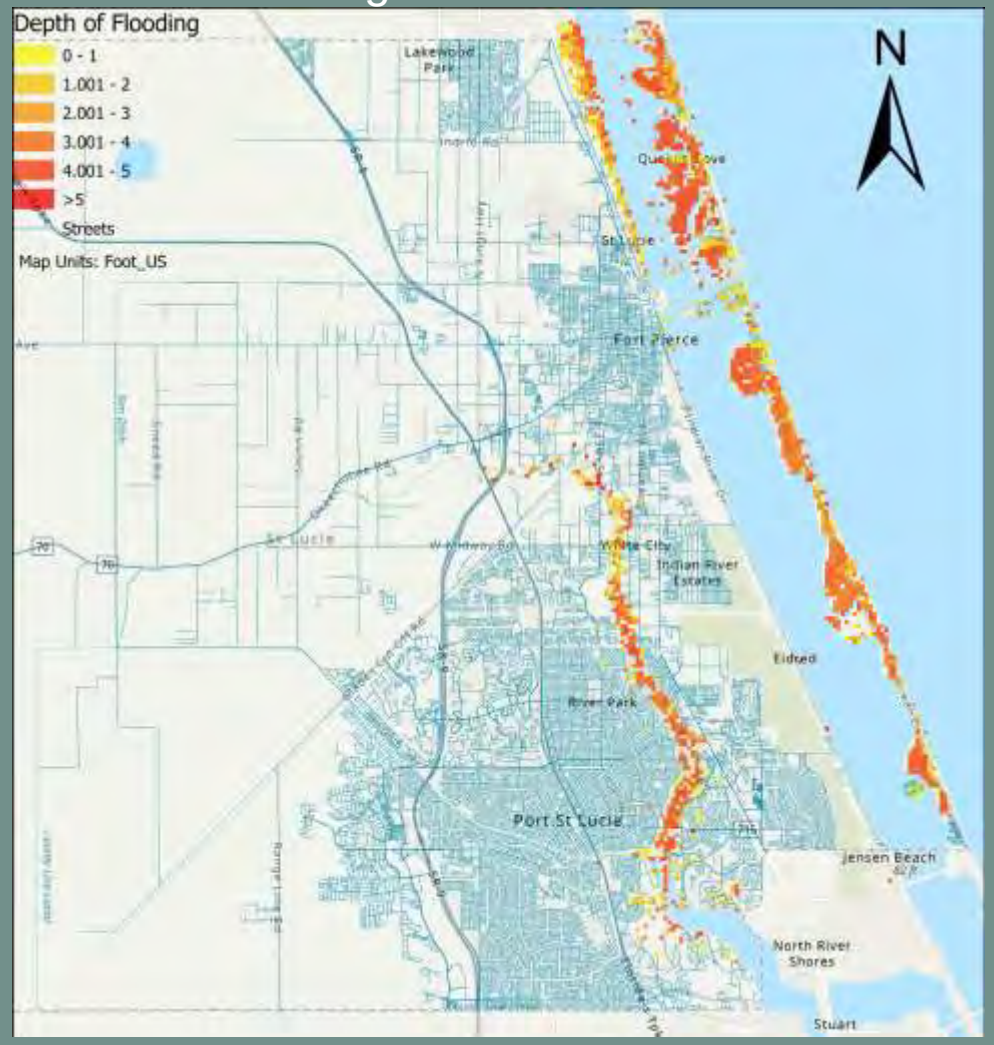
Sea Level Rise (SLR) Projections [126]

Sea Level Rise (SLR) Projections

127

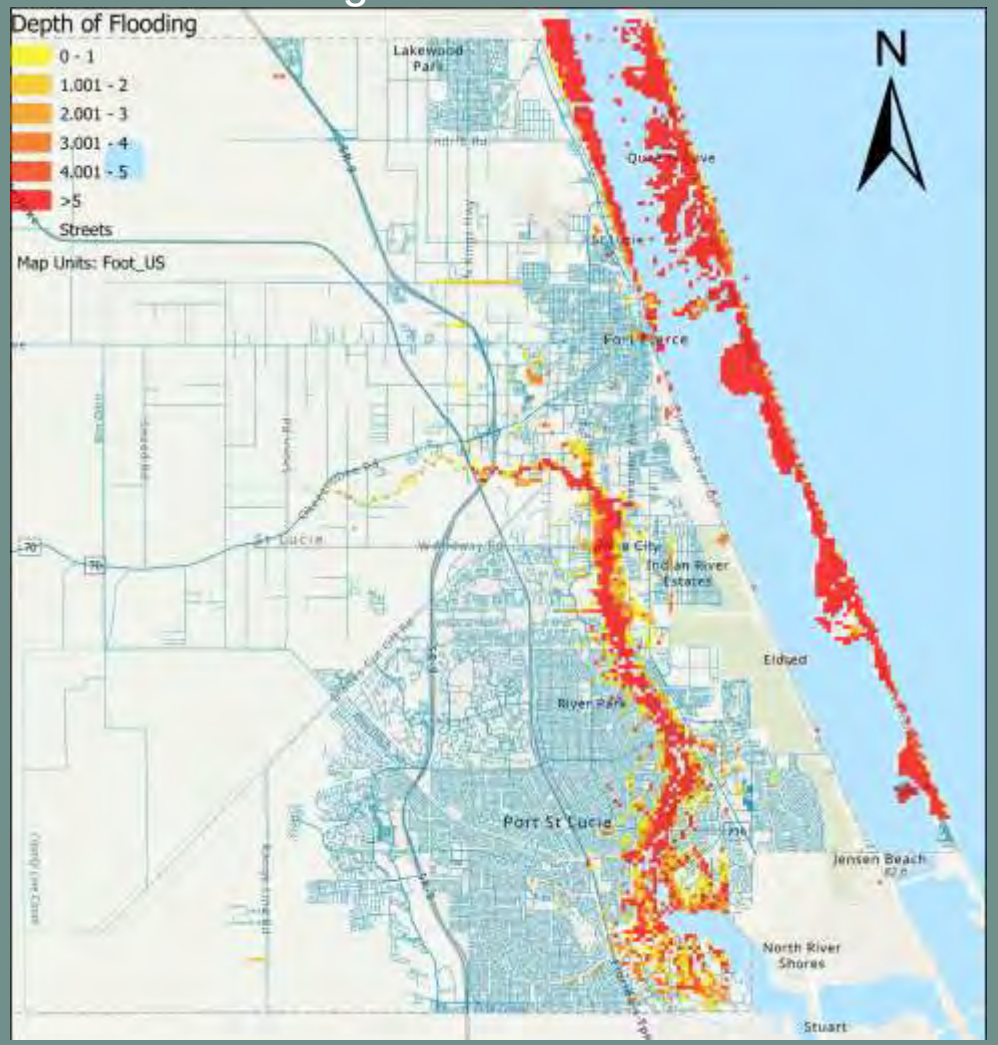
Base Year 2025

Maximum High Tide Elevation 4.55 ft.



Horizon Year 2100

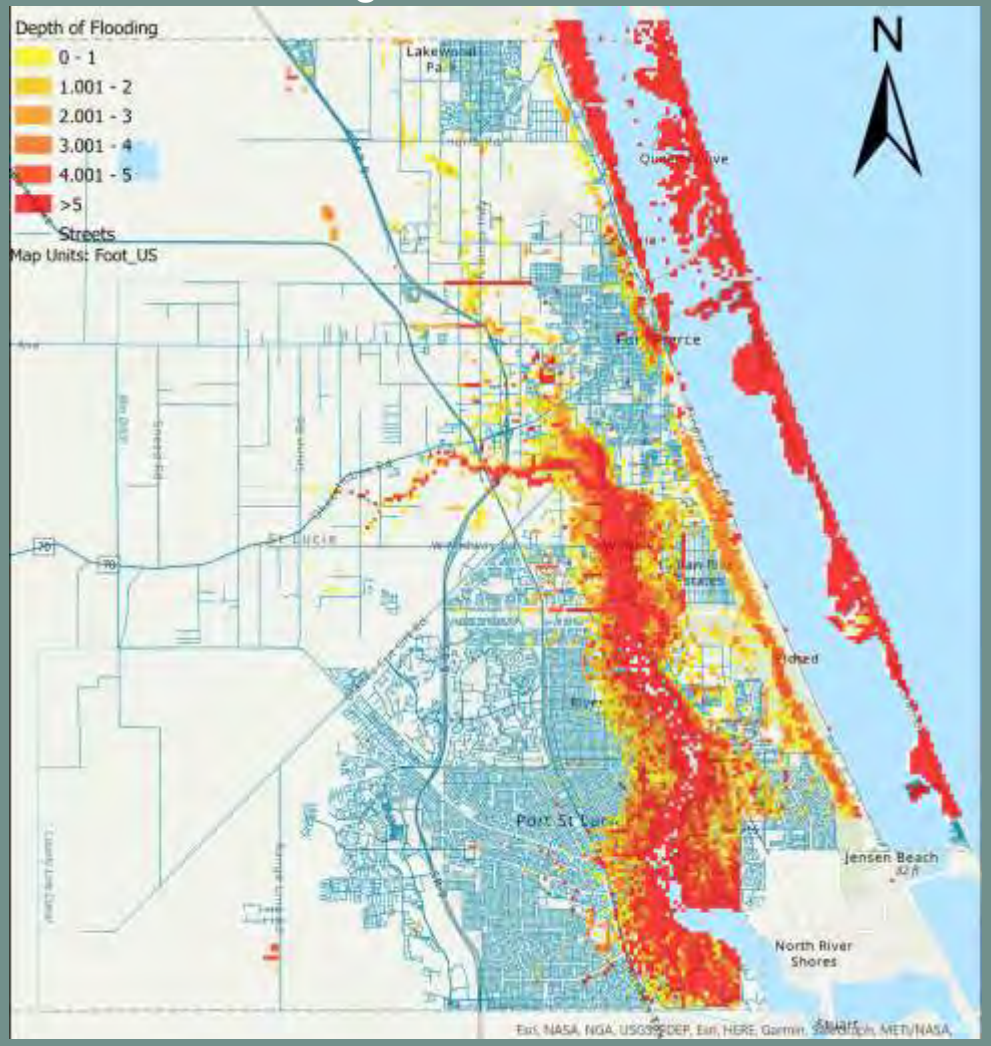
Maximum High Tide Elevation 10.55 ft.



Storm Surge, Category 5 Hurricane

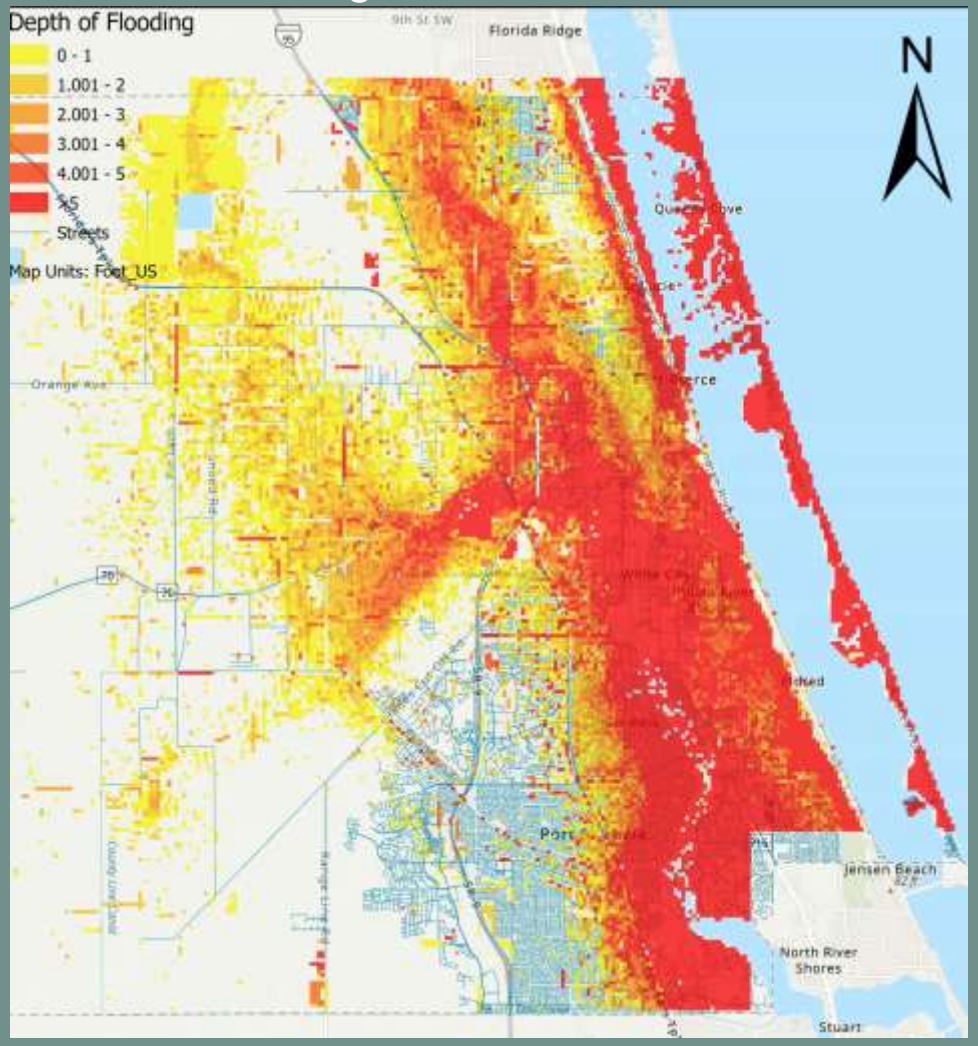
Base Year 2025

SLR + Storm Surge Water Elevation 15.80 ft.



Horizon Year 2100

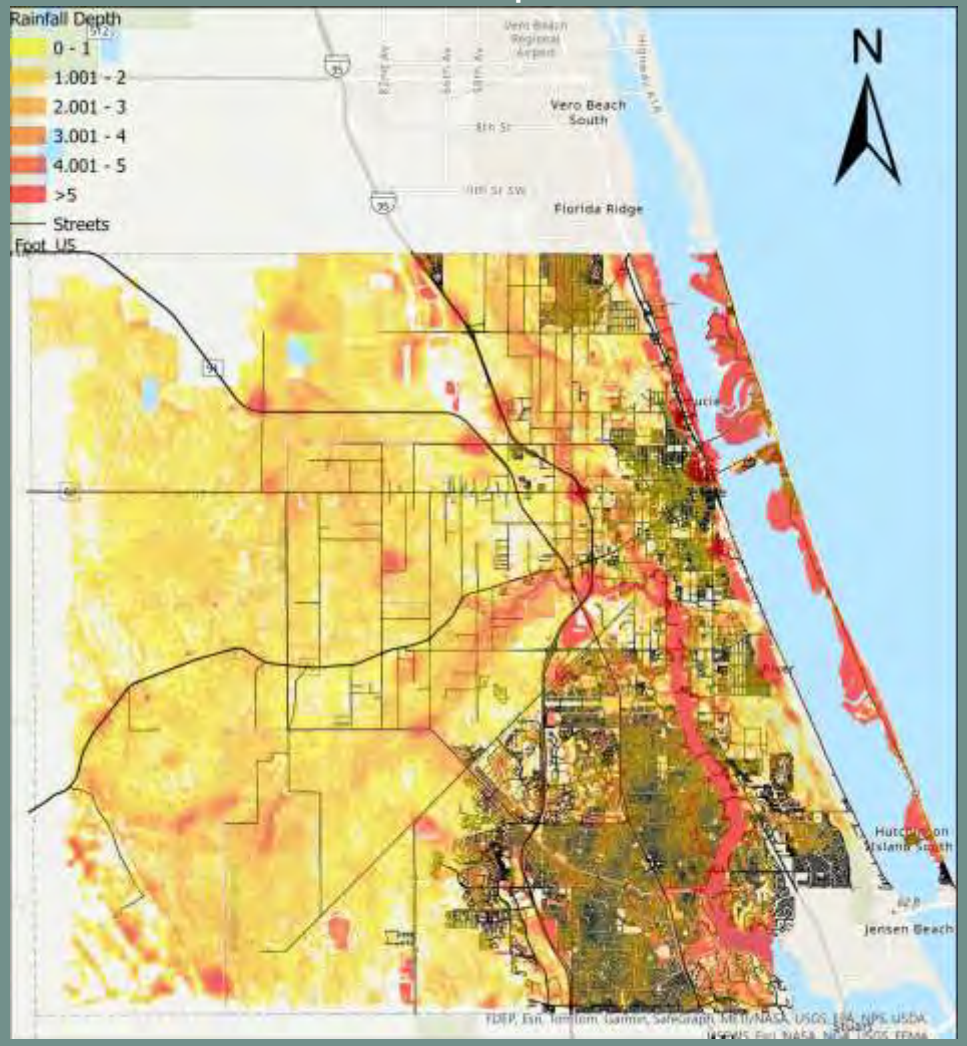
SLR + Storm Surge Water Elevation 21.80 ft.



Extreme Rainfall Projections

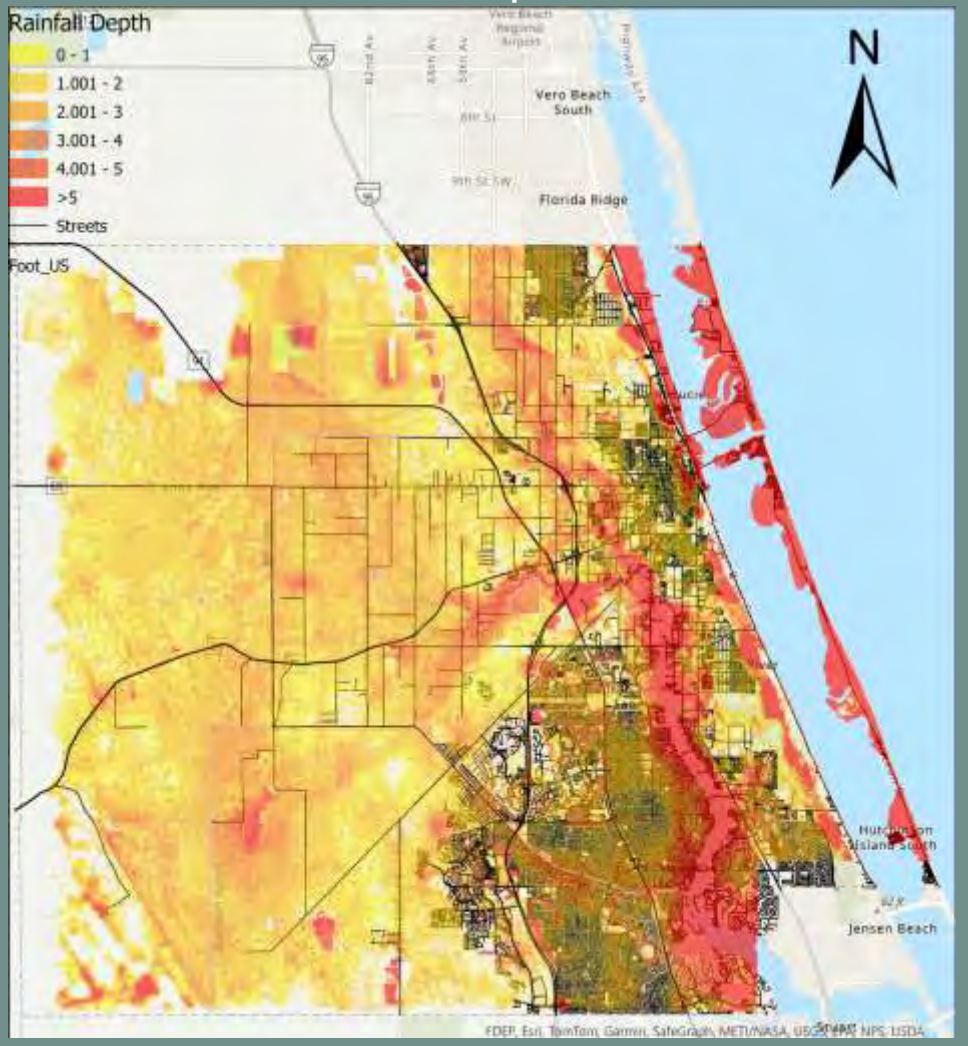
Base Year 2025

100-Year Strom Rainfall Depth for 72-Hours 14.80 in.



Horizon Year 2100

100-Year Strom Rainfall Depth for 72-Hours 21.46 in.

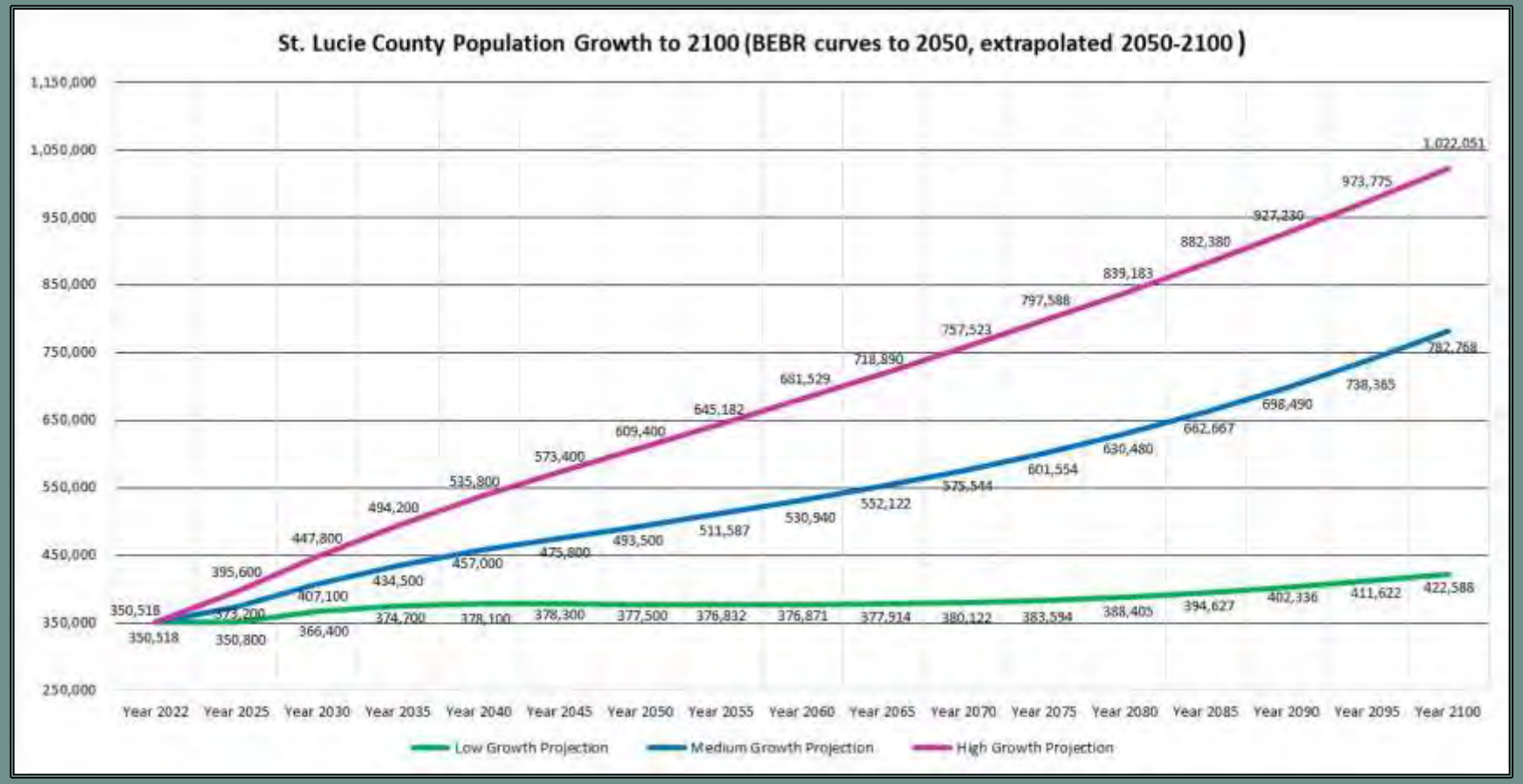


130

Planning for Growth

Population Growth

- projecting beyond 2050 accelerates divergence
- disruptive change in economic cycles, impact land development and in-migration beyond forecasts



Alternative Development – Sustainability Hubs

- concentrated high-density development at nexuses of mobility infrastructure
- downtown or Regional Activity Centers
- mixed-use and internally walkable
- self-contained ecosystems for daily needs
- includes inter-modal support systems to enable travelers change modes, and have long distance travel support
- includes all support systems for region during natural disasters and emergencies
- lowest impact on land consumption
- outlined in the St. Lucie TPO "Automated Connected Electric and Shared (ACES) Transportation Plan" July 2023.

Mobility Network & Street Sections

Effort:

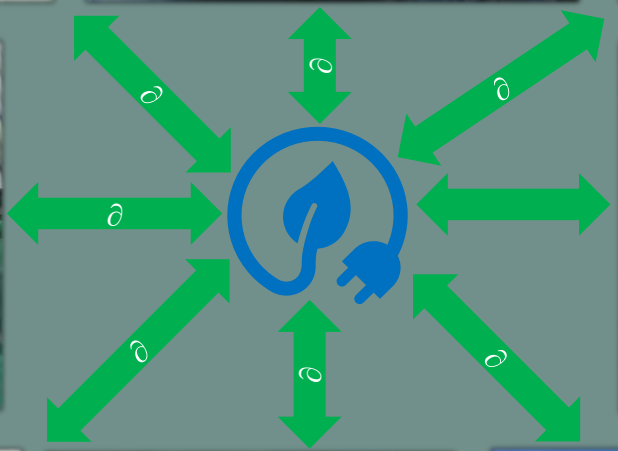
- finalize multi-modal needs
- finalize modal split, trip demand

Result – Map Series

- Years 2045, 2070, 2100
- vehicular master grid
- mass transit master grid
- bicycle &micro-mobility grid
- pedestrian master street grid
- freight movement master grid
- ACES multi-modal master grid








Infrastructure Technology

Urban:

- constrained rights-of-way
- curb-and-gutter
- roadway elevation challenged by development
- multi-modal infrastructure integrates w/ vehicles

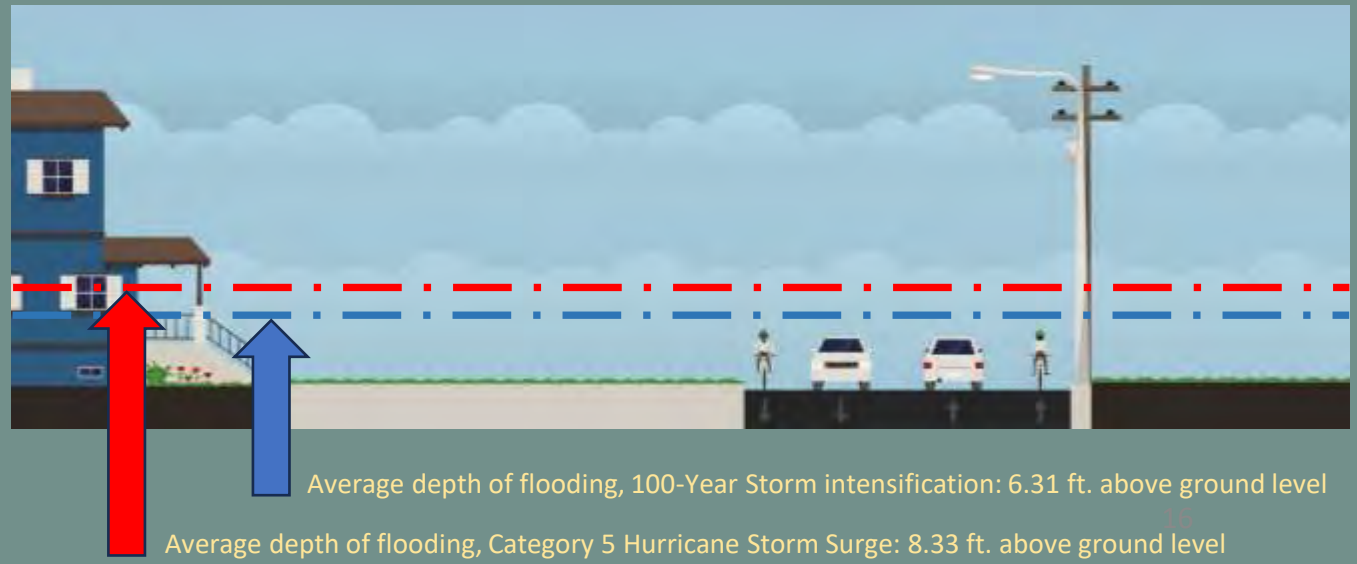
Suburban / Rural:

- potential to reserve rights-of-way
- swale drainage and areas for retention
- roadway elevation more possible
- room for dedicated multi-modal lanes

Suburban ROW Climate Resiliency

Edwards Road, Selvitz to S 25 St. Year 2045

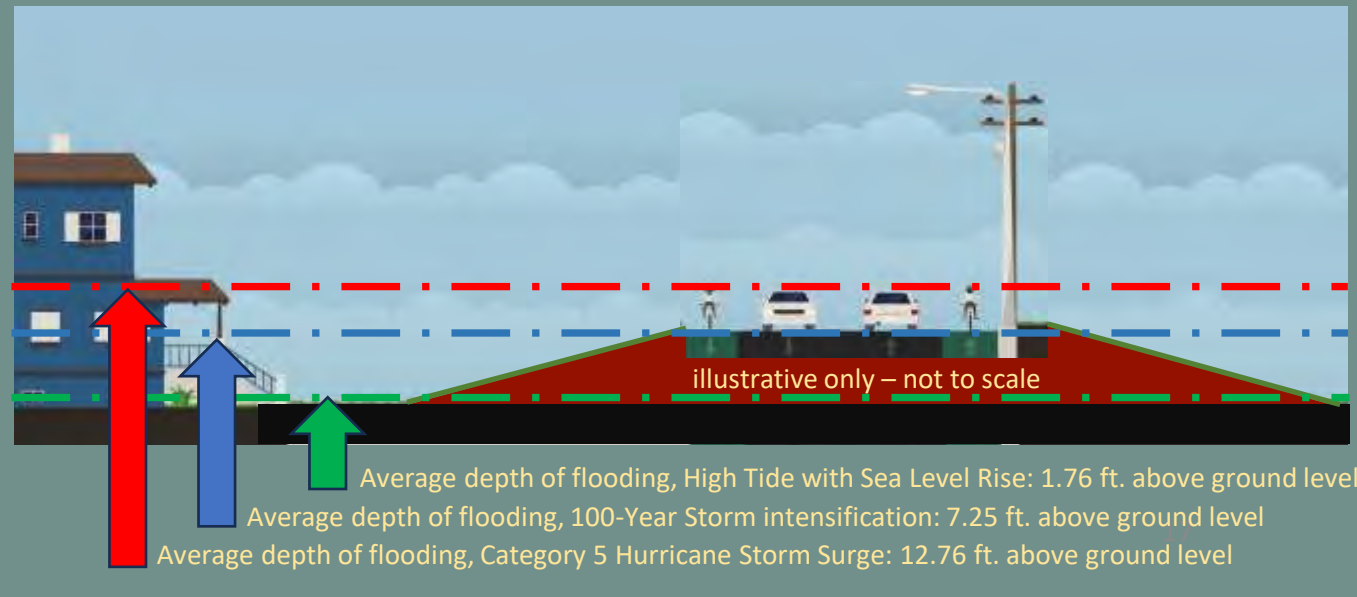
Edwards Road Segment	Selvitz Road to S. 25th Street
Functional Classification	minor arterial
Right-of-Way Section	60 ft.
Vehicular Travel Lanes	two 11 ft. travel lanes LT lanes at intersections
Bicycle Lanes	undesignated 4 ft. each side
Sidewalks	none
Transit	none
Vehicle Capacity (FDOT generalized LOS, urban)	1,481/ hr. (peak hour, two-way)
People Capacity, all modes	2,161/ hr. (bike lanes: 680)
Drainage	swale
Environment	suburban low density
Street Elevation (average of NAVD by TAZ)	11.32 ft. (TAZ 591, 593, 597, 598)
Sea Level Rise High Tide (max of TAZ)	- 6.52 ft.
Category 5 Hurricane Storm Surge (max of TAZ)	+ 8.33 ft.
100-Year Rainfall Event (max of TAZ)	+ 6.31 ft.
Mitigation Strategies (least impact appropriate to context)	increase road elevation w 4% swale, drainage engineering, increase BFE & freeboard (LDR)
Right-of-Way Reservation	at 9 ft. roadway elevation increase, 60 feet existing plus 212 ft each side



Edwards Road, Selvitz to S 25 St. Year 2100

137

Edwards Road Segment	Selvitz Road to S. 25th Street
Functional Classification	minor arterial
Right-of-Way Section	60 ft.
Vehicular Travel Lanes	two 11 ft. travel lanes LT lanes at intersections
Bicycle Lanes	undesignated 4 ft. each side
Sidewalks	none
Transit	none
Vehicle Capacity (FDOT generalized LOS, urban)	1,481/ hr. (peak hour, two-way)
People Capacity, all modes	2,161/ hr. (bike lanes: 680)
Drainage	swale
Environment	suburban low density
Street Elevation (average of NAVD by TAZ)	11.32 ft. (TAZ 591, 593, 597, 598)
Sea Level Rise High Tide (max of TAZ)	+ 1.76 ft.
Category 5 Hurricane Storm Surge (max of TAZ)	+ 12.76 ft.
100-Year Rainfall Event (max of TAZ)	+ 7.25 ft.
Mitigation Strategies (least impact appropriate to context)	increase road elevation w 4% swale, drainage engineering, increase BFE & freeboard (LDR)
Right-of-Way Reservation	at 9 ft. roadway elevation increase, 60 feet existing plus 212 ft. each side



Suburban ROW Resiliency to Growth

Midway Road west of Selvitz Rd. Year 2045

Midway Road Segment	Selvitz Rd to Glades Cut Off Rd
Functional Classification	major arterial
Right-of-Way Section	160 ft.
Vehicular Travel Lanes	two 12 ft. travel lanes LT & RT lanes at intersections; currently being expanded to 4 lane, divided section
Bicycle Lanes	none
Sidewalks	none
Transit	none
Vehicle Capacity (FDOT generalized LOS, urban)	1,481/ hr. (peak hour, two-way)
People Capacity, all modes	2,161/ hr.
Drainage	swale – to be curb & gutter
Environment	suburban
Street Elevation (average of NAVD by TAZ)	19.72 ft. (TAZ 638, 705, 666, 1018, 1029)
Sea Level Rise High Tide (max of TAZ)	-15.49 ft.
Category 5 Hurricane Storm Surge (max of TAZ)	- 0.12 ft.
100-Year Rainfall Event (max of TAZ)	+ 0.81 ft.
Mitigation Strategies (least impact appropriate to context)	drainage engineering for severe storm rainfall events, and 1 ft. road elevation
Right-of-Way Reservation	160 ft. – no increase

Average depth of flooding, 100-Year Storm intensification: 0.81 ft. above ground level

Midway Road west of Selvitz Rd. Year 2100

Midway Road Segment	Selvitz Rd to Glades Cut Off Rd
Functional Classification	major arterial
Right-of-Way Section	160 ft.
Vehicular Travel Lanes	two 12 ft. travel lanes LT & RT lanes at intersections; currently being expanded to 4 lane, divided section
Bicycle Lanes	none
Sidewalks	none
Transit	none
Vehicle Capacity (FDOT generalized LOS, urban)	3,040/ hr. (peak hour, two-way)
People Capacity, all modes	19,000+ / hr.
Drainage	swale – to be curb & gutter
Environment	suburban
Street Elevation (average of NAVD by TAZ)	19.72 ft. (TAZ 638, 705, 666, 1018, 1029)
Sea Level Rise High Tide (max of TAZ)	- 6.37 ft.
Category 5 Hurricane Storm Surge (max of TAZ)	+ 3.90 ft.
100-Year Rainfall Event (max of TAZ)	+ 1.09 ft.
Mitigation Strategies (least impact appropriate to context)	elevate roadway 2 to 4 ft., drainage engineering for severe storm rainfall events
Right-of-Way Reservation	160 ft. + up to 50 ft. increase

infrastructure to support sustainable growth network
Midway / I-95 Sustainability Hub

Average depth of flooding, 100-Year Storm intensification: 6.31 ft. above ground level

Average depth of flooding, Category 5 Hurricane Storm Surge: 8.33 ft. above ground level

141

ROW Acquisition and Reservation

ROW Acquisition by Location

142

Urban Areas:

- Functionally constrained with buildings and high-value investments near right-of-way / property lines.
- Long term planning to acquire upon redevelopment
- Coordinate with local redevelopment efforts

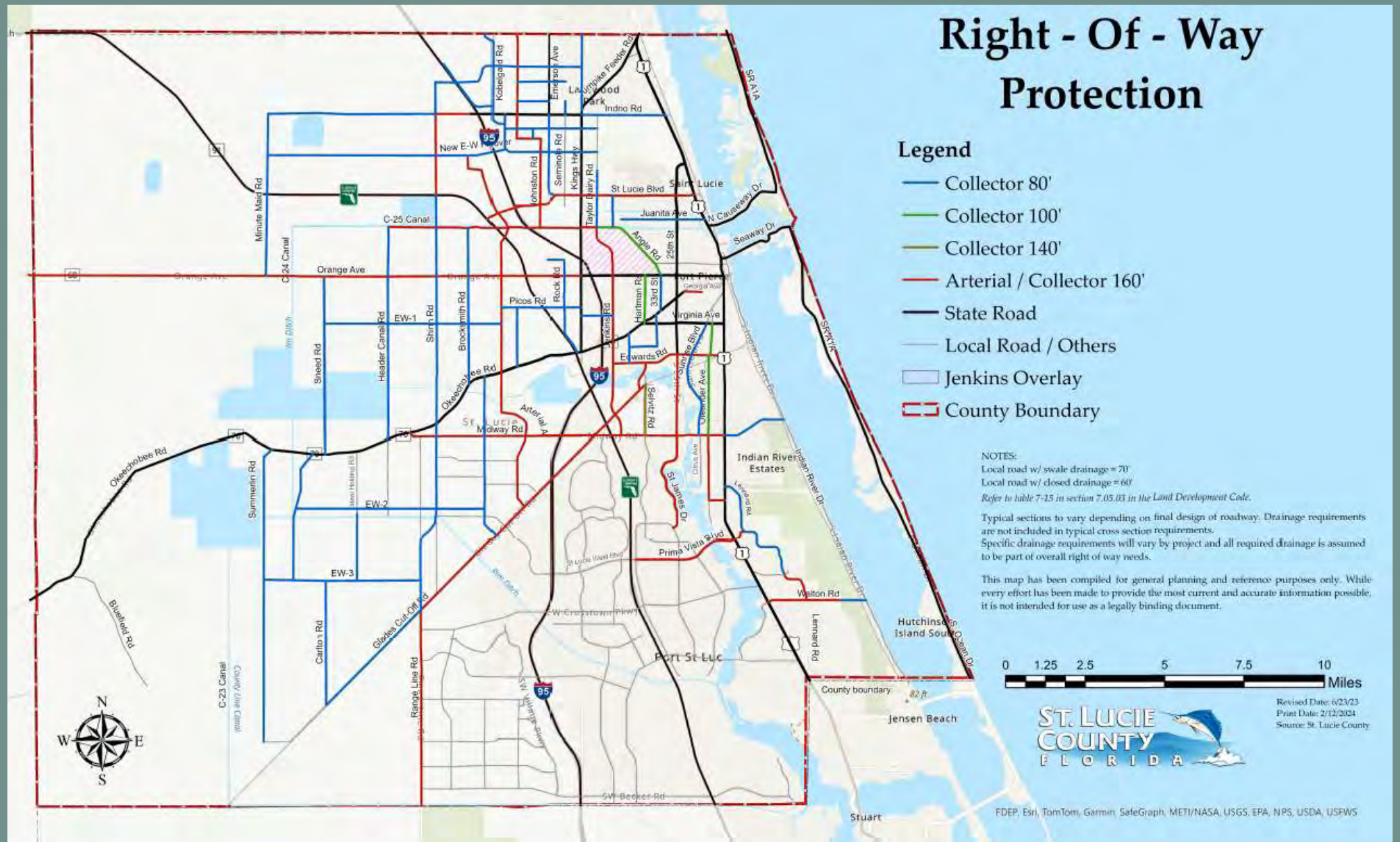
Suburban Areas:

- Single-family homes
- Commercial
- Coordinate with local jurisdiction redevelopment efforts, and need to change zoning code

Exurban Areas:

- Large property owners in agriculture, energy, other production and resource management

Right-of-Way Reservations



144

What's Ahead

Plan Adoption

Draft Mobility Infrastructure Plan	October 2024
Final Mobility Infrastructure Plan	November 2024
St. Lucie County Commission Presentation	December 2024