

Port St. Lucie  
**MULTIMODAL PLAN**

Port St. Lucie

# Multimodal Plan

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# Overview

The City of Port St. Lucie



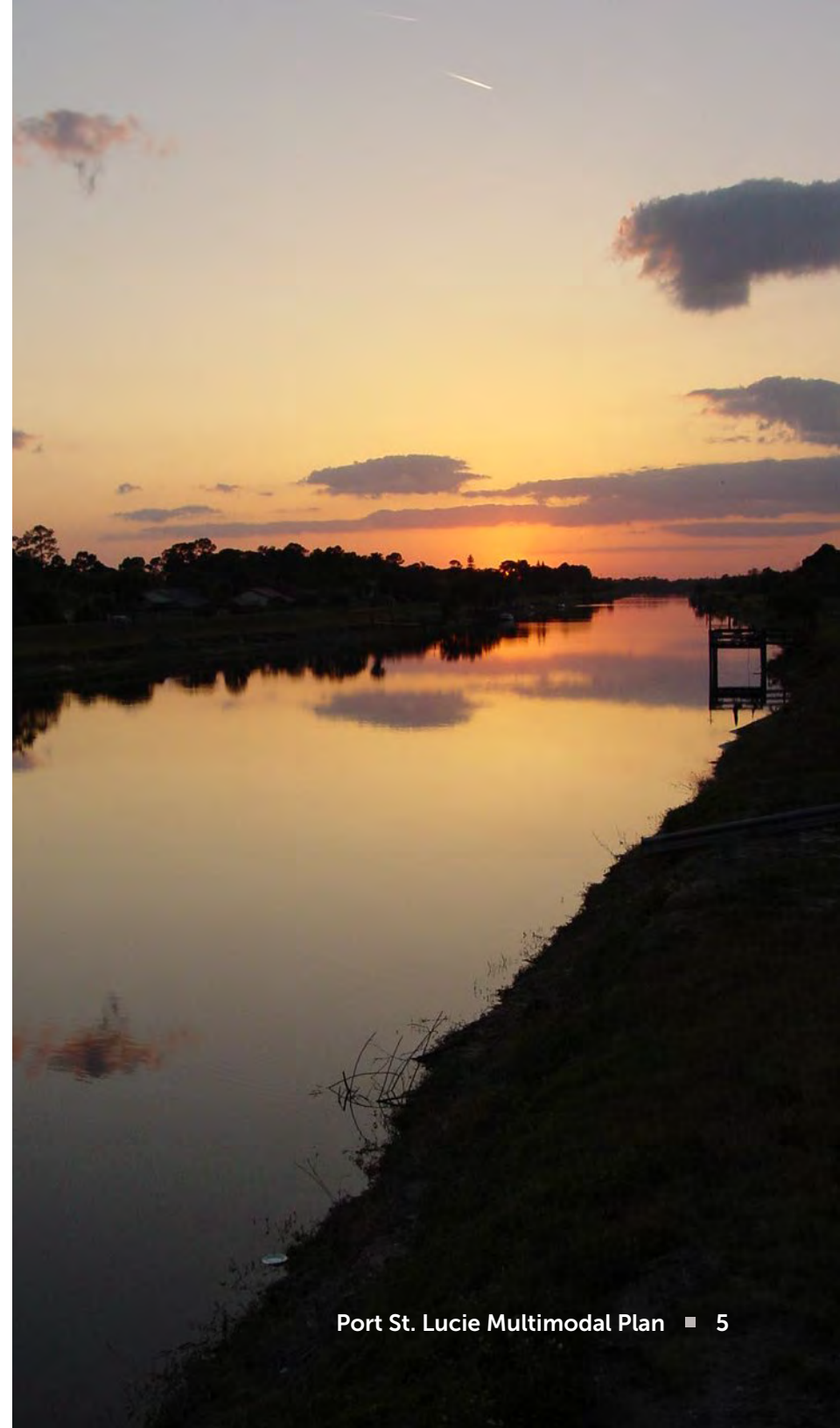


## Port St. Lucie

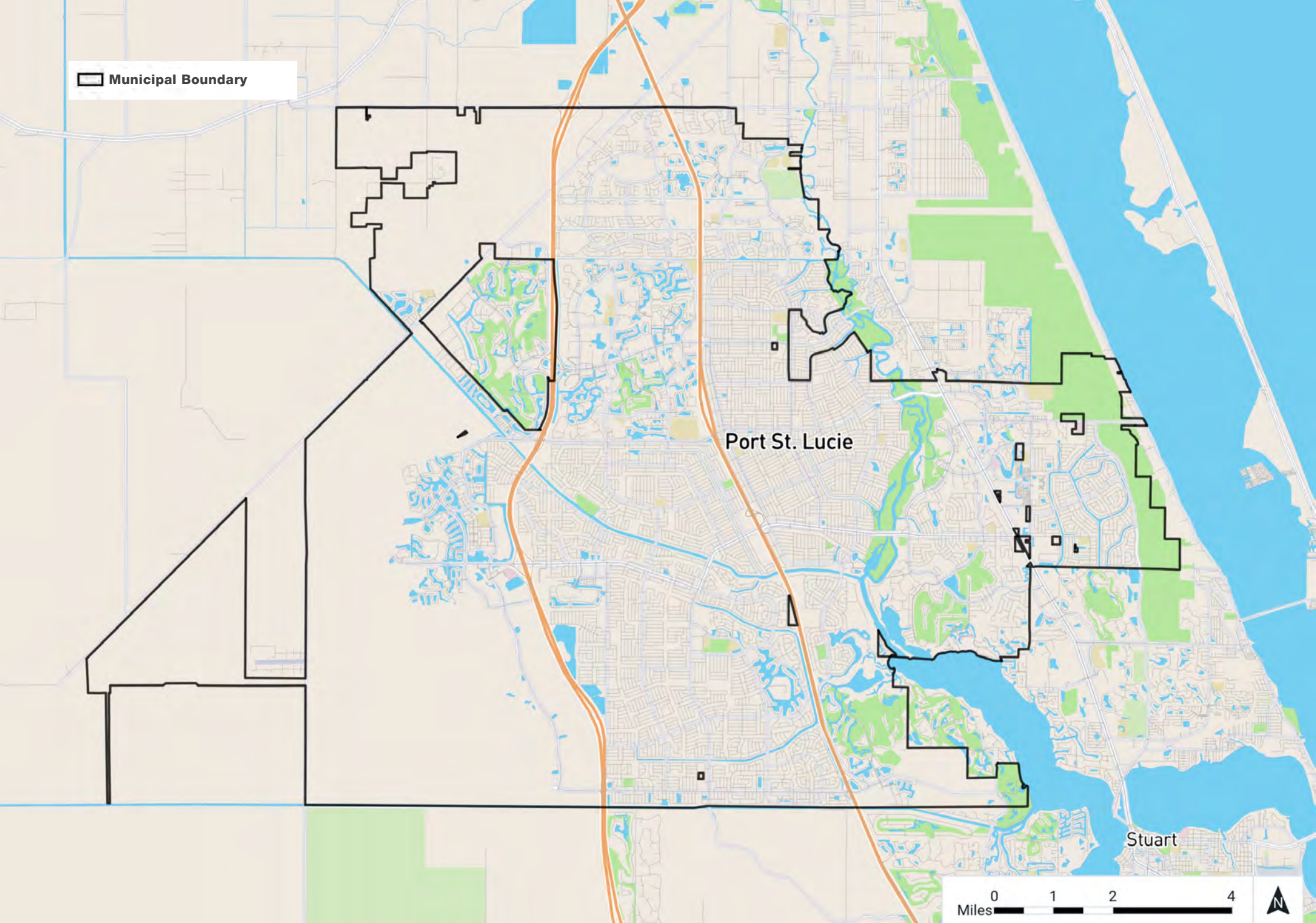
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The City of Port St. Lucie is proud to be the hometown where 201,846 residents live, learn, work, play, and celebrate all of life's opportunities. Located on the Atlantic coast, Port St. Lucie is the 7th largest city in the state. It encompasses 120 square miles within St. Lucie County, and is regionally positioned as the halfway point between Miami and Orlando along the east coast of Florida.

In the 1950's, Port St. Lucie was a largely uninhabited land, which was merely composed of a fishing camp, a few farms, and scattered businesses. However, in 1958 the General Development Cooperation allotted \$50 million to develop an advanced community on the North Fork of the St. Lucie River. Land marketing, sales, and settlements followed and led to the City of Port Saint Lucie in 1961. Years later, the population boomed, as it tripled in size between 1980 and 1990 providing the opportunity to prosper to its citizens. Today, the City has transitioned from a developing housing community to one of the most flourishing and progressive cities in Florida.



▭ Municipal Boundary





On an annual basis the City of Port St. Lucie participates in The National Community Survey™, conducted by the National Research Center. The scientifically valid survey is the gold standard in community assessments today. This benchmarking survey provides a comprehensive and accurate picture of livability and resident perspectives about local government services, policies and management. The survey captured opinions within three primary pillars of a community: community characteristics, governance, and participation. Seven central facets are observed within these pillars: safety, mobility, natural environment, economy, recreation and wellness, education and enrichment, and community engagement. The City of Port St. Lucie residents continuously rate the city as an **excellent place to raise children, retire, and an excellent overall appearance and reputation**. Roughly 9 in 10 respondents reported feeling safe in their neighborhoods and in Port St. Lucie's downtown/commercial area, while about 8 in 10 gave positive marks to the overall feeling of safety in the city. In this regard, the city attracts a mix of people because of its low crime rate, diverse housing market, and abundance of open space. Additionally, according to the Florida Department of Law Enforcement, the City is ranked the safest large City in the State of Florida.

As a growing community, the city offers numerous economic opportunities, follows guidelines for sustainable growth, and supports the development of a multimodal transportation network to enhance quality of life and bolster development and investment. Port St. Lucie has traditional suburban neighborhoods, new mixed-use neighborhoods with a variety of housing types in walking distance to retail and dining establishments, and the beginning stages of a downtown that will integrate urban commercial development with outdoor nature trails, waterways and social opportunities.

As reported by the Census Bureau American Community Survey (ACS), the largest industries in Port St. Lucie, FL are Retail Trade (13,678 people), Health Care & Social Assistance (13,098 people), and Accommodation & Food Services (8,235 people), and the highest paying industries are Utilities (\$65,787), Transportation & Warehousing, & Utilities (\$48,902), and Public Administration (\$47,387). Compared to other places, Port St. Lucie, FL has an unusually high number of residents working as Health Technologists & Technicians.



**8 in 10  
residents  
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marks to  
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feeling of  
safety in the  
city**



# Public Stakeholder Input

## The Mobility Challenge

The National Community Survey™ carried out by the National Research Center in early 2020, gathered input from a representative sample of 364 residents of the City of Port St. Lucie. The survey, which was previously administered in 2019, 2018, and 2009 allows for an analysis of trends over time in perception of public opinion across key aspects of life in a community. Port St. Lucie residents consistently give positive ratings to the overall quality of life in Port St. Lucie and the city as a place to live. Ratings of the city as a place to retire exceeded national averages. In 2020, the following aspects of community received higher marks as compared to previous years:

- Paths and walking trails
- Air quality
- Overall economic health
- Shopping opportunities
- Employment opportunities
- Education and enrichment opportunities
- Opportunities to participate in community matters
- Openness and acceptance of the community towards people of diverse backgrounds
- A place to raise children

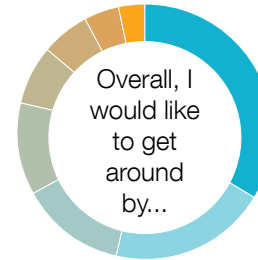
However, the overall ease of travel in Port St. Lucie received ratings lower than national averages. When asked what were the top three priorities they would like the City to focus on in the next year, approximately 62% of respondents cited issues that had to do with mobility. Specific requests were made to [enhance sidewalk connectivity](#), [expand transit coverage](#), [reduce congestion](#), and [accelerate street repairs and improvements](#). Issues of safety and comfort were found to be predominantly cited as reasons influencing how often people walked or biked. Roughly 9 in 10 people surveyed believed bus service should be expanded and shared-use paths should be explored. [It is important to note, that residents were surveyed prior to the onset of the COVID-19 global pandemic and associated economic impacts.](#)

# The National Community Survey

captures residents' opinions within the three pillars of a community: **Community Characteristics, Governance and Participation** to report "livability" of Port St. Lucie.



**80%** agreed that transportation options are the most important city initiative



- Personal Vehicle (83)
- Walk/Run (49)
- Bus (33)
- Bike (29)
- Rideshare (18)
- Electric Assisted (15)
- Autonomous Vehicle (8)
- Train (Write-in) (11)

## Mobility continues to be a challenge.

Out of a total of 314 respondents, **62%** cited issues related to **MOBILITY** as a priority for the City to focus on in the next year.



Believe bus service should be expanded

### What factors influence how often you walk?



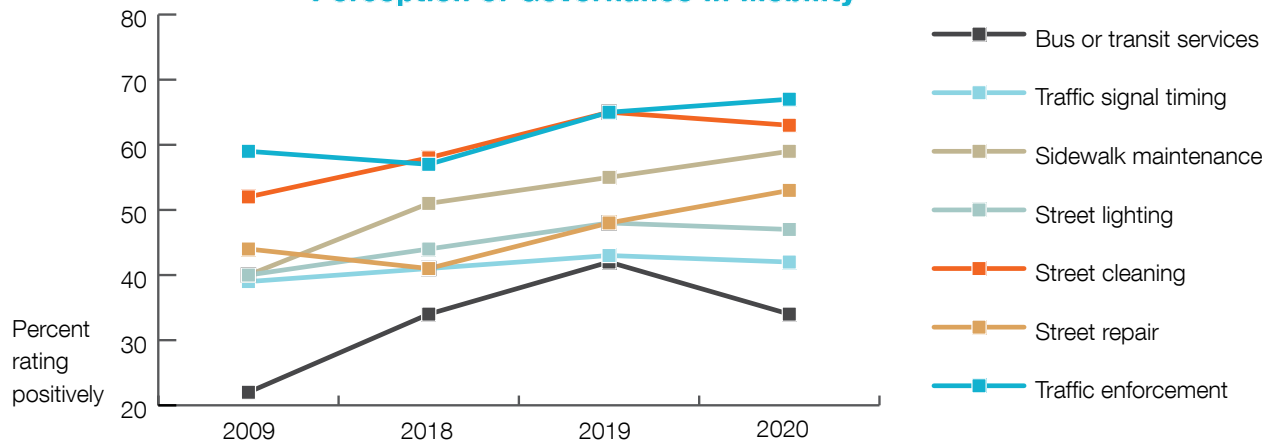
- Quality of sidewalks (64)
- Safety (61)
- Number of sidewalks (55)
- Environmental Factors (53)
- Distance (52)
- Ease to get to Destination (46)

### What factors influence how often you bike?

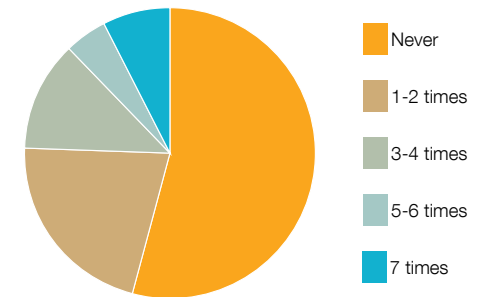


- Safety (50)
- Quality of path/trail (38)
- Environmental Factors (38)
- Connectivity of paths/trails (36)
- Number of paths/trails (29)
- Distance (28)

### Perception of Governance in Mobility



### During an average week, how many trips do you walk, bike, rideshare, or use public transit instead of your personal vehicle?

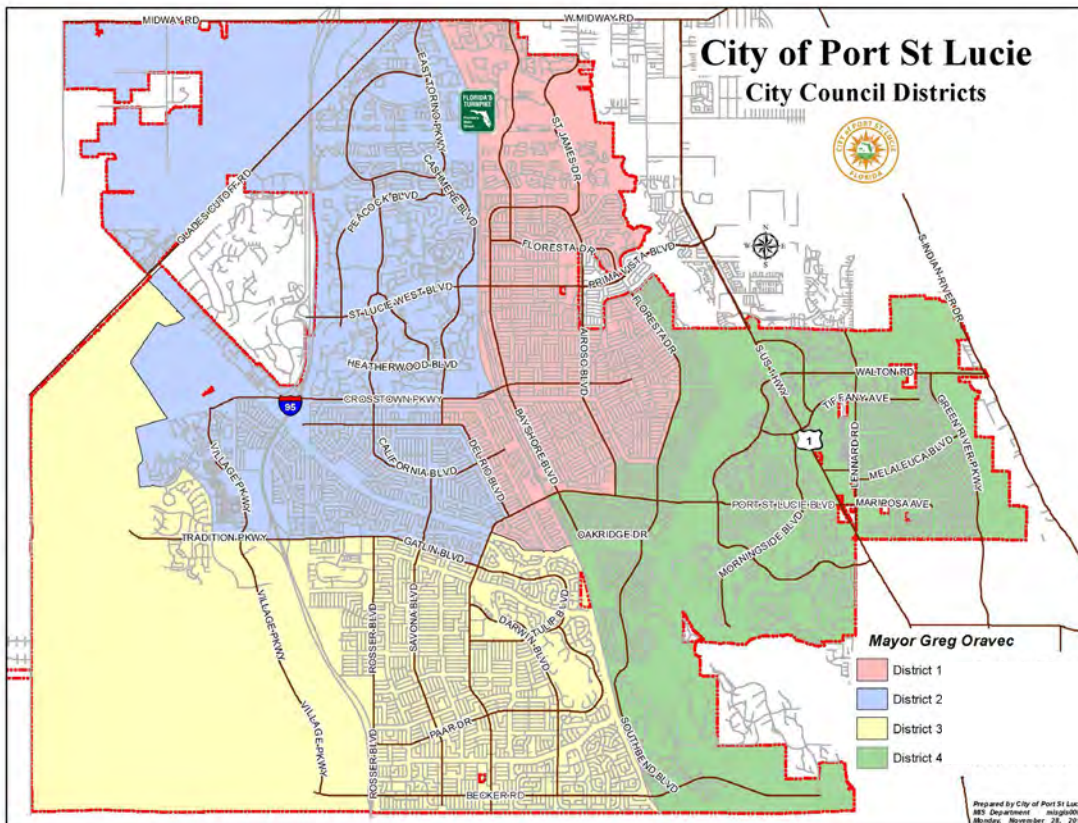




## City Leadership

Throughout the development of this plan, city leadership was highly involved in the analysis and recommendations of this plan. One-on-one meetings with key city officials and representatives, including the Office of the Mayor and City Council, took place June through August. In addition, the Multimodal Plan was developed through extensive collaborations with the Parks and Recreation Department to ensure consistency in planning and vision, particularly as it refers to creating a network of active travel corridors. Other stakeholders involved included Public Works, Planning, and the Police Departments.

This plan was developed in close coordination with the St. Lucie Transportation Planning Organization (TPO) and aligns with county and regional mobility efforts.



# Stakeholder Input Timeline



## MARCH

Kickoff Meeting with  
City Staff



## APRIL

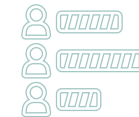
Community Livability  
Report

Visioning Exercise with City  
and St. Lucie TPO Staff



## MAY

Public Input Analysis



## JUNE

Work Sessions  
with City Council members

## JULY

Work Sessions with  
City Staff Leadership



## AUGUST

Draft Plan

## SEPTEMBER

Multimodal Plan Adopted

# Guiding Principles

## City of Port St. Lucie Strategic Plan

The City of Port St. Lucie is focused on carrying out a strategic plan that is updated every year based upon public input. The Strategic Plan sets a vision for a city that has great neighborhoods, excellent educational opportunities for lifelong learning, a diverse local economy and employment options, convenient transportation, unique natural resources including the St. Lucie River, and leisure opportunities for an active lifestyle working with the all-encompassing version of a “Safe, Beautiful and Prosperous City for All People – Your Hometown.” The Multimodal Plan is guided by the vision and seven goals and corresponding strategic initiatives and priority projects set by the Strategic Plan. Mobility is a Strategic Initiative of the Strategic Plan and development of a Multimodal Plan is a Priority Project.

### Safe, Clean & Beautiful

Improve Safety. Beautify Landscaping of Roadways, Public Parks & Gateways.

### Vibrant Neighborhoods

Implement the Neighborhood Improvement and Community Engagement (N.I.C.E.) program.

### Quality Education For All Residents

Partner with St. Lucie Public Schools and support development of a Career Technical Academy.

### Diverse Economy & Employment Opportunities

Facilitate the Buildout of Southern Grove, Reimagine the City Center property as the mixed use cornerstone of Eastern Port St. Lucie and Support Small Businesses.

### High Quality Infrastructure & Facilities

Plan Roadways for Future Needs, Advance Mobility including through adoption and implementation of the Multimodal Plan and the Public Transit Enhancement Plan and Improve Water Quality.

### Culture, Nature & Fun Activities

Develop The Port and Pioneer Park and Implement the Ten Year Parks & Recreation Master Plan.

### High Performing Government Organization

Make efforts to improve service delivery while reducing millage, Enhance Customer Service and Cultivate a High Performing Organization.







# Existing Policies and Documents

## Relationship to Other Plans and Standards

The Multimodal Plan is designed to support the land use, open space, community building, and economic development goals and outcomes envisioned by the City of Port St. Lucie Strategic Plan. This multimodal plan adheres to recognized best practices in the industry and builds upon past and current planning efforts which ultimately inform and shape the Recommendations Chapter. Some of the planning studies and engineering standards taken into consideration during the development of this plan are outlined below.

### FDOT Complete Streets Implementation Plan (2015)

The Florida Department of Transportation (FDOT) developed this Complete Streets Implementation Plan in partnership with the national not-for-profit organization Smart Growth America to guide the Department's efforts to implement the Complete Streets Policy in planning, designing, building, and operating safe, context-sensitive transportation facilities that address and balance all transportation modes.

### Findings & Recommendations

This plan outlines a five-part implementation framework and process for integrating a Complete Streets approach into FDOT's practices to ensure that future transportation decisions and investments address the needs of all users of the transportation network and respond to community goals and context. The implementation framework in this plan includes recommendations for:

- Revising guidance, standards, manuals, and policies.
- Updating decision-making processes through strategies such as integrating Complete Streets into FDOT's long-range plans.
- Developing measures and criteria used to evaluate proposed future investments.

- Identifying types of stakeholders to engage in implementation and a framework for stakeholder outreach and participation.
- Providing ongoing education and training through a framework for a comprehensive Complete Streets training process.

### FDOT Design Manual (FDM), 2019

This Florida Department of Transportation (FDOT) Design Manual (FDM), sets forth geometric and other design criteria, as well as procedures, for FDOT projects. The design criteria presented in this manual are based on functional classification, design speed, and context classification. The new FDOT Design Manual describes how land use should be considered when making decisions about planning and road design, and was recognized as one of the Best Complete Streets Initiatives of 2017.

### Findings & Recommendations

In 2017, the FDOT Design Manual introduced a Context Classification System which provides a framework for roadway design criteria and standards according to distinguishing characteristics of various built environments, like natural, rural town, suburban commercial, and urban core.





## Florida Greenbook, 2018

The Florida Greenbook, or the Manual of Uniform Minimum Standards for Design, Construction and Maintenance, provides uniform minimum standards and criteria for the design, construction, and maintenance of all transportation facilities such as public streets, roads, highways, bridges, sidewalks, curbs and curb ramps, crosswalks, bicycle facilities, underpasses, and overpasses used by the public for vehicular and pedestrian traffic.

### Findings & Recommendations

Major changes in the 2018 edition of this document include policies and objectives updates for context-based planning and design, including:

- Latest and best design criteria
- Establishes performance measures
- Promotes safety, quality of life, and economic development
- Design streets and highways reflect existing and future context

## Manual on Uniform Traffic Control Devices (MUTCD)

The Manual on Uniform Traffic Control Devices (MUTCD) sets minimum standards and provides guidance and ensures uniformity to traffic control devices across the nation. The use of traffic control devices helps reduce crashes and congestion and improves the efficiency of the surface transportation system.

### Findings & Recommendations

- The process encourages innovation and flexibility while maintaining uniformity. Uniformity of traffic control devices is critical in highway safety and mobility.
- Signs could be used only where justified by engineering judgment or studies. Additionally, results from traffic engineering studies of physical and traffic factors should indicate the locations where signs are deemed necessary or desirable. These recommendations should follow the City of Port St. Lucie's standards.

## Florida Transit-Oriented Development Guidebook, 2012

Transit-Oriented Development (TOD) focuses on the land use patterns located within a quarter- to a half-mile of transit stations and corridors served by a premium transit system. The purpose of the document is to address how TOD can be a part of transforming Florida's existing auto-oriented, largely suburban patterns of development into more compact, livable patterns that support walking, biking, transit, and shorter-length auto trips.

### Findings & Recommendations

The TOD Guidebook is intended to provide a "how-to" manual for Florida's local governments and agencies to implement TOD in the Florida context. The TOD Framework established a baseline set of expectations regarding TOD and a detailed discussion of three distinct TOD place types: Regional Centers, Community Centers, and Neighborhood Centers. For each, the Framework describes density/intensity standards, urban design considerations, and correlation with different transit modes or "technologies."

Despite the variation in the sample, common themes were identified to help guide communities of all sizes and types to remove obstacles to TOD and promote transit-supportive environments:

- Higher pedestrian activity levels observed in areas with more defined urban areas
- Major government facilities are frequently located within station areas
- Number of residential units tends to be below defined targets
- Surface parking is a prominent feature in most place type locations

In terms of the specific metrics that ensure appropriate block sizes for walking, recommendations vary, including limiting maximum block faces to 400 feet; maintaining an average overall block size of less than four acres; and having an average block perimeter of 1000 to 2000 feet.

## Long Range Transportation Plan (LRTP) 'GO2040', 2016

The Long Range Transportation Plan (LRTP) is intended to guide the investment in multimodal transportation options and identify projects to be completed over a 25 year horizon. The LRTP is revised and updated by the St. Lucie Transportation Planning Organization (TPO) every five years. The St. Lucie 2040 LRTP, "Go2040", was adopted in 2016. The next update to the LRTP, "Smart Moves 2045", was under development at the time of this study and is expected to be adopted in the Spring of 2021.

### Findings & Recommendations

The LRTP not only sets the vision for St. Lucie County, but it also evaluates long-term transportation needs and determines the financial feasibility of the desired improvements. A list of Cost Feasible Projects is presented in each iteration of the LRTP including roadway, walk/bike, operational/ITS/safety and congestion management with their associated funding sources. For a project to eventually be programmed through the FDOT Work Program, it must first be adopted in the LRTP or through an LRTP amendment process.

The latest updates regarding the St. Lucie LRTP can be accessed through this link: <http://www.stlucietpo.org/lrtp/>

## St. Lucie TPO List of Priority Projects (LOPP), FY2020/2021

The List of Priority Projects (LOPP) is developed based on the LRTP and other plans by the St. Lucie TPO, FDOT District 4, and the local governments. The St. Lucie TPO Board adopted the LOPP in December 2018. It focuses on the following list of priorities: Major Projects, Congestion Management Process (CMP), Transit, and Transportation Alternatives (TA) Projects.

### Findings & Recommendations

The LOPP includes the following projects:

- Adding lanes, sidewalks, bicycle lanes, and other multimodal improvements to facilities including Port St. Lucie Boulevard from

Becker Road to Paar Drive and Midway Road from Glades Cut-off Road to Selvitz Road.

- Installing traffic cameras, fiber optic cable, adaptive traffic signal control on facilities including Gatlin Boulevard, Prima Vista Boulevard, and Port St. Lucie Boulevard.
- Transit improvement projects including vehicle purchases, Jobs Express Terminal regional bus service to West Palm Beach, and a microtransit pilot project.
- TA local projects including new sidewalks, multi-use trails, and bicycle lanes.

## Port St. Lucie Comprehensive Plan – Transportation Element, 2012

The City of Port St. Lucie Comprehensive Plan guides future development, maintains quality of life, and provides for economic development. It also regulates land use and provides the basis for zoning regulations. The City of Port St. Lucie Comprehensive Plan – Transportation Element is a plan for efficient, safe, and coordinated multimodal transportation system that provides mobility for pedestrians, bicyclists, transit users, and motorized vehicle users. The document examines existing conditions as well as future transportation needs.

### Findings & Recommendations

Because of the City's interest in the development of multimodal options particularly pedestrian and bicycle facilities, efficient roadways and transit, the City may consider implementing a mobility fee that provides for capital improvements on the entire transportation system.

The City also provides incentives, such as increased allowable densities and reduced parking requirements, to promote mixed-use developments by requiring a mix of land uses in all non-residential future land use categories and allowing density bonuses for developments located within ¼ mile of a rail station, a multimodal transit center, or a transit stop as identified in the Future Land Use Element. In addition, consistent with the City's "Complete Streets"

approach, the Comprehensive Plan states that all streets within the City shall have sidewalks on both sides.

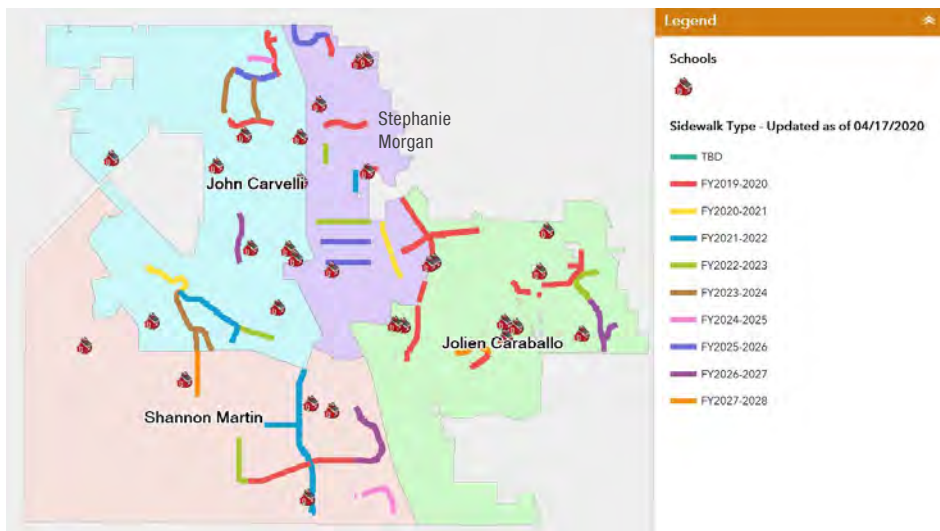
The latest Comprehensive Plan can be accessed through the following link: <https://www.cityofpsl.com/government/departments/planning-and-zoning/comprehensive-plan>

## Ten-Year Sidewalk Plan, 2020

This plan examines sidewalks strategically as a network and develops a road map for connecting sidewalks throughout the City of Port St. Lucie in a 10-year horizon, thereby fulfilling the City's strategic goals to provide safe and have vibrant neighborhoods. This document sets the vision for a more walkable City—keeping students off busy roads allowing them to walk safely to schools and providing residents with an alternative mode of travel. The plan includes ½ cent sales tax funding, committed grant funding and city funds.

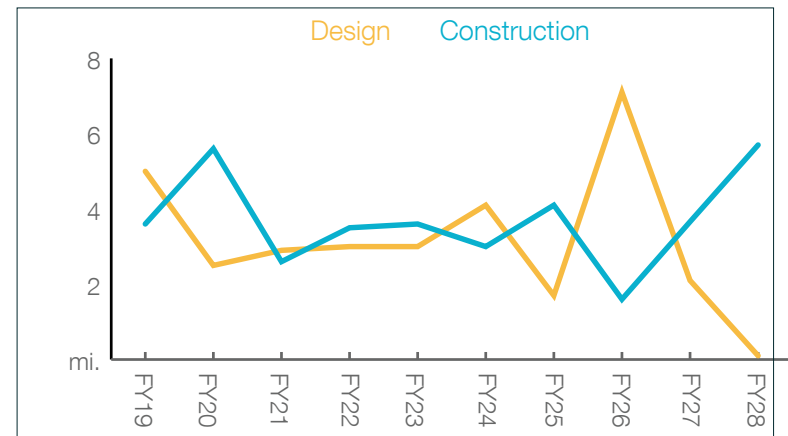
## Findings & Recommendations

The goal of the sidewalk program is to progressively expand the sidewalk network to include sidewalks on major roadways with an emphasis on areas within a two-mile radius of schools and to provide



sidewalks with direct connections between the major roadways.

- **Funding** | The Sidewalk Program is funded by the City's Road and Bridge fund, proceeds from the Half-Cent Sales Tax, and various grants from county, state and federal agencies. The Road & Bridge find budgets \$1,000,000 annually for sidewalks. The Half-Cent Sales Tax is anticipated to collect a total of \$88,000,000 over the ten-year period of which \$11,000,000 is to be allocated to sidewalks.
- **Design & Construction** | Since the initiation of the sidewalk program in 2006, the City has constructed a total of 81.6 miles of sidewalk. The ten-year sidewalk plan includes 36.6 miles of sidewalk with an additional 8.9 miles as part of roadway projects for a total of 45.5 miles. The graph and map below depict the miles of sidewalk in design or construction each year of the ten-year plan (FY2018/19 - FY 2027/28).



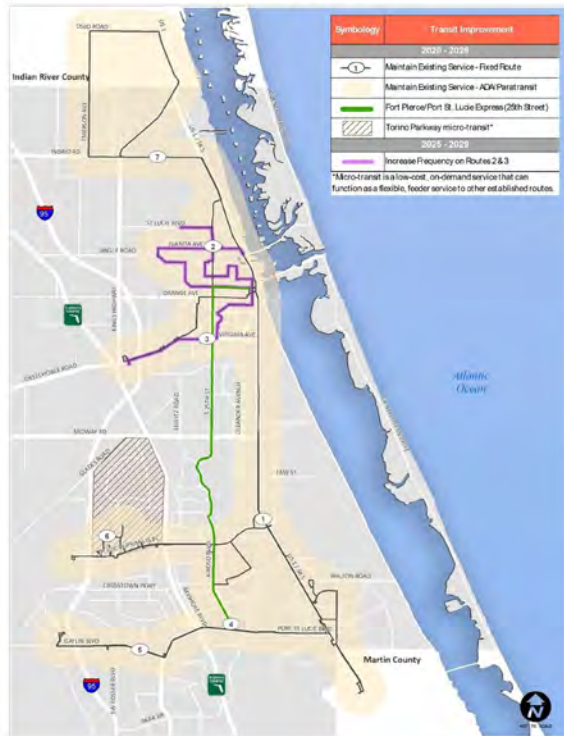
The full Sidewalk Master Plan as well as an interactive map of programmed projects can be accessed through the following link: <https://www.cityofpsl.com/government/departments/public-works/projects/sidewalk-master-plan>

## St. Lucie Transit Development Plan Bus Plus, 2019

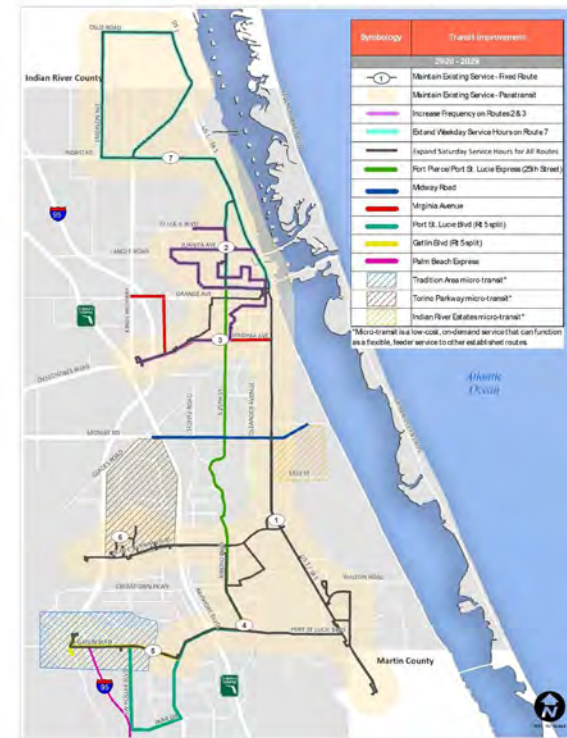
The major update of St. Lucie County's 10-Year Transit Development Plan (TDP), Bus Plus, provides direction to guide transit investment decisions within the county.

Bus Plus assesses the transit needs and associated alternatives based on data collection and analysis, as well as outreach efforts. The identified alternatives are prioritized through the evaluation process and the final prioritized list of improvements is used to develop the 10-year implementation and financial plans. Bus Plus developed two alternative scenarios for funded needs as shown below: Status Quo and Opportunity Plus. The additional revenue needed to fund the Opportunity Plus alternative is mostly derived through a Transit Municipal Services Taxing Unit (MSTU) increase.

Map 9-1: Status Quo Funded Needs



Map 9-2: Opportunity Plus Funded Needs



## St. Lucie Transportation Disadvantaged Service Plan (TDSP), May 2020

The St. Lucie Transportation Disadvantaged Service Plan (TDSP) was developed by St. Lucie County to address the needs of persons who are unable to transport themselves or to purchase transportation, including persons who are elderly, low income, with disabilities, or children who are at-risk. The latest update to this plan was publicly vetted, adopted, and endorsed in 2020. The plan details the Transit Service Plan including eight (8) fixed routes, Paratransit, and a pilot program providing microtransit door-to-door service on-demand in the South Port St Lucie/Gatlin/Tradition area. In addition, Direct Connect provides supplementary services to the transportation disadvantaged.



## Neighborhood Traffic Calming Policy, May 2020

The City of Port St. Lucie's Neighborhood Traffic Calming Policy addresses problems related to speeding, excessive volumes and safety on neighborhood streets. It provides a process to request, evaluate, and implement appropriate traffic calming measures. The framework for this process is divided in four main steps:

- Step 1 – Neighborhood Contact Person or Applicant requests study
- Step 2 - Review and consideration of the request by City Staff
- Step 3 - Applicant petitions for recommended Traffic Calming Measures
- Step 4 - Project is implemented by City Staff

Following the above described process, design and construction of traffic calming measures will take place after obtaining approval from City Council and once funding sources are identified and secured for the requested improvements.

The Neighborhood Traffic Calming Request Form and Petition may be accessed through the link below:

<https://www.cityofpsl.com/home/showdocument?id=2680>



### CITY OF PORT ST. LUCIE PUBLIC WORKS DEPARTMENT TRAFFIC CALMING REQUEST FORM

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Street for Review (From/To): \_\_\_\_\_  
Day Phone No.: \_\_\_\_\_ Email Address: \_\_\_\_\_  
Identify yourself:  Homeowner  Developer  City Staff  
If a homeowner, do you belong to a neighborhood association?  Yes  No  
If yes, which one? \_\_\_\_\_  
Are you willing to be the "Point of Contact" regarding this Traffic Calming request in your neighborhood?  
 Yes  No  
\*If no, please revise information section of form with someone willing to be the point of contact.  
Please check any issues that apply to your street:  
 Speed of automobile traffic  Cut-through traffic  
 Volume of automobile traffic  High pedestrian volume  
 Number of accidents  Lack of amenities (sidewalks, crosswalks, etc.)  
Please elaborate on the specific problems on your street or in your neighborhood:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Once completed, please send your completed request form AND petition sheet(s) to:

**City of Port St. Lucie Public Works**  
121 SW Port St. Lucie Blvd, Building B  
Port St. Lucie, FL 34984



## Parks and Recreation Master Plan, 2019

The 10-Year Parks and Recreation System Master Plan provides a comprehensive vision consistent with the policies found in the City's Strategic Plan. The City of Port St. Lucie's existing parks and recreation system is comprised of 49 parks. The City also owns approximately 250 acres of undeveloped parkland, and approximately 521 acres of additional parkland will be provided through future development.

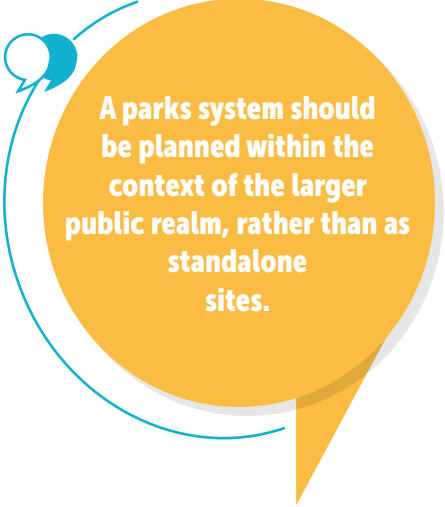
### Findings & Recommendations

The City of Port St. Lucie's parks were evaluated based on several factors, including among others walking accessibility, safety, and multimodal capacity.

- **Existing Conditions** | Accessibility was measured in terms of Level Of Service (LOS), or the distance residents have to travel to access parks and recreation facilities. Many of the City's parks were found to offer users the opportunity to walk to the park along sidewalks or low traffic streets that connect the park to the surrounding neighborhood. A few of the parks provide bike share stations, which should be provided throughout the park system, especially in the City's larger parks. Most of the City's parks lack connections to transit.
- **Needs** | Walking & hiking trails and paved bike trails are residents' top parks and recreation priorities. The City has not yet adopted a citywide bikeways and trails plan, nonetheless the City's long-range vision call for a Bikeways and Trails System Plan that incorporates both on-road and off-road bikeways, trails, and sidewalks. A Parks and Recreation System Vision was developed in this study.
- **Implementation** | The City's implementation strategy is to first complete the sidewalk network, and then follow up with street trees and other corridor improvements where there is space within the existing ROWs. In areas proposed for new development, such as Southern Grove, the City will require Complete Streets and trails to be constructed as part of the infrastructure.

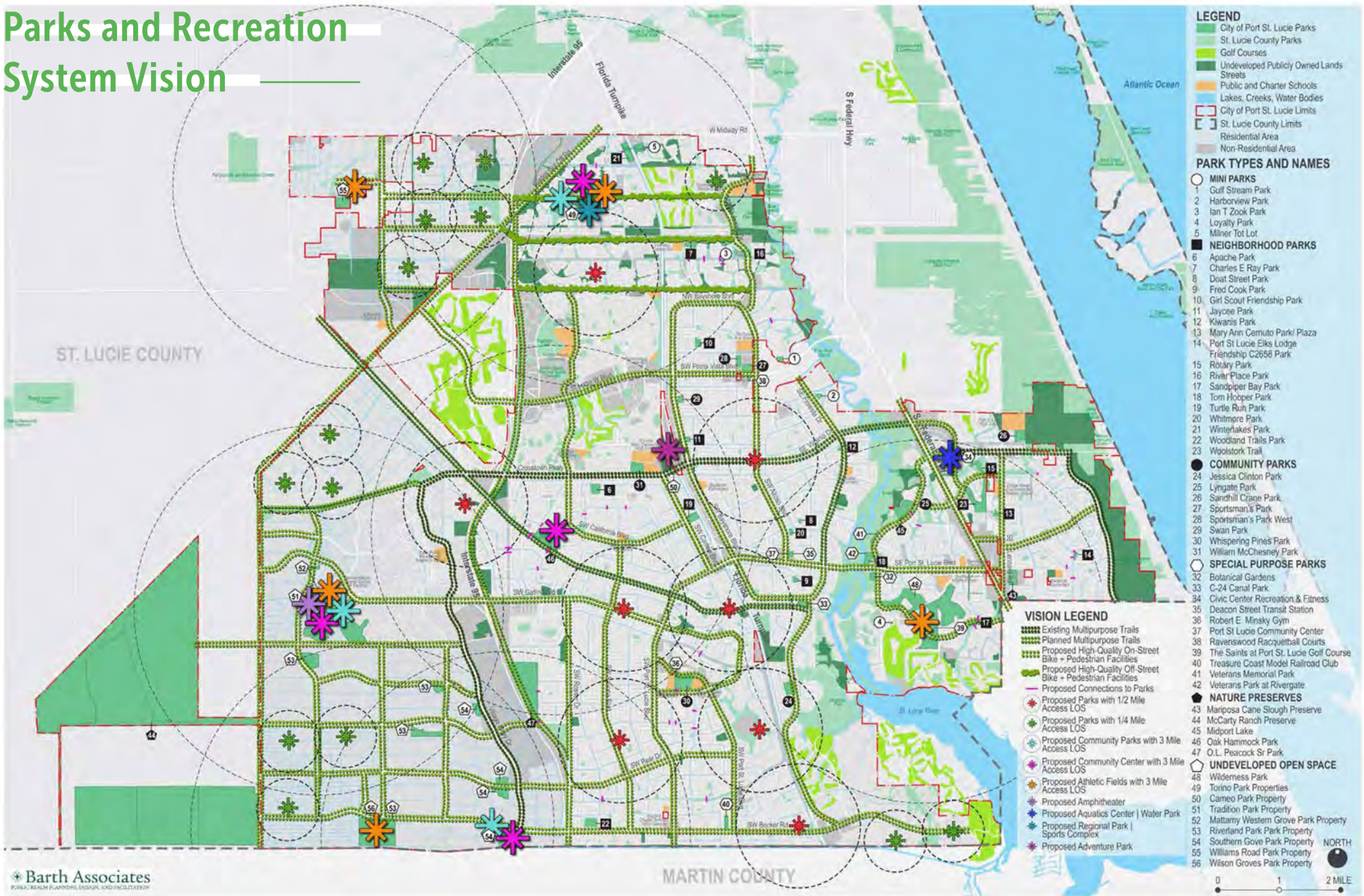
The County is currently focused on constructing the East Coast Greenway and the North Fork Trail, which both pass through Port St. Lucie. Other potential trail corridors within the City include the C-24 & C-23 canals.

A short-term implementation strategy is to promote a walking and bicycling culture within the City by sponsoring "ciclovia events". A long-range vision of this plan is to gradually redevelop major corridors as "Complete Streets".



**A parks system should be planned within the context of the larger public realm, rather than as standalone sites.**

# Parks and Recreation System Vision





# Emerging Trends

**Best Practices**



## Travel Behavior and Sustainable Mobility

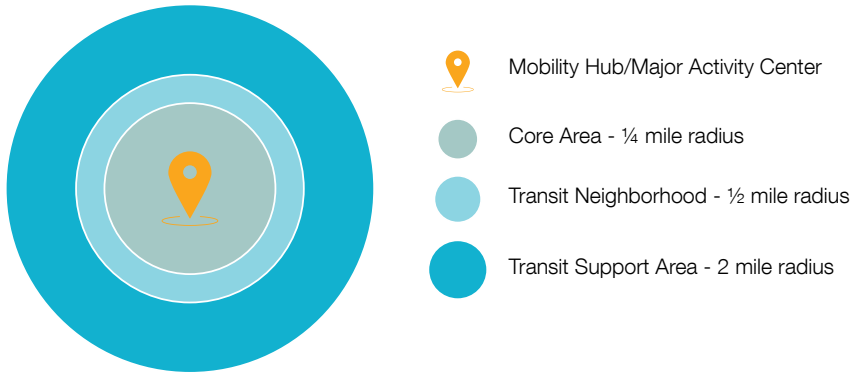
The travel decisions that people make in a city are influenced by elements of the built environment, sociodemographic characteristics, personal attitudes, and current and emerging trends shaping society. Travel behavior research seeks to understand the different levels of influence exerted by each one of those factors in order to successfully plan, design, and operate sustainable, equitable, and efficient transportation systems. Cities equipped with a variety of mobility options experience a significant numbers of benefits that range from economic regeneration to social cohesion, and often report higher levels of quality of life. Communities can only truly thrive if they are built on the foundations of diversity, inclusivity, and social equity. In short, communities must work for everyone.

### Five Emerging Trends in Travel Behavior

Changing generational behavior toward suburbanization and car ownership	→	Increasing number of people seeking alternatives to private car travel	Strong trend towards urbanization among Millennials and Generation X
New attitudes toward communications technology	→	Transportation has benefitted significantly from Transportation System Management and Operations (TSM&O) strategies	Cities and transportation networks are undergoing a transformative period in urban mobility
Innovative alternatives to work and non-work travel	→	Increase in number of telecommuters and shared office practices	Rise in e-commerce and delivery services
Shifting attitudes toward sharing and mobility on demand	→	Rapid increase in demand for ridesharing Transportation Network Companies (TNC's) and other demand-responsive services	Transit systems are evolving into more performance-driven models
An increasing number of on-demand flexible route transportation options	→	Growth in ridership for demand-responsive transportation in the US doubled from 110.9 million trips to 225.4 million trips between 2000 to 2014	Market response include a wide range of options, including microtransit services



# Transit-Oriented Development (TOD)



TOD proposes a model for sustainable development in which cities grow as walkable, mixed-use, compact neighborhoods within a half-mile radius of high quality transit.

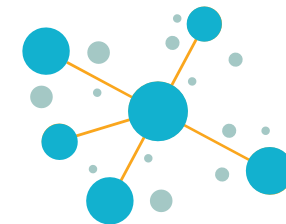
The area within a five minute walk of a hub is known as the Transit Core Area and is often represented as the 1/4 mile radius surrounding the hub. The Transit Neighborhood is defined by a 10 minute walk or 1/2 mile radius, this is where the bulk of transit users live or work. Lastly, the Transit Support Area extends for 2 miles. Providing adequate first and last mile infrastructure along the transit support area can significantly increase the transit catchment area. This form of development tends to be characterized by the presence of mobility hubs, or centroids, where people can connect to several modes of transportation, and that act as focus points for the community around it. The TOD model may be adapted to integrate multiple forms of mobility to

create a small-scale framework for neighborhood accessibility and connectivity. Under this model, private and public development investment decisions are guided by the public interest, and supported by a robust system that allows for multiple transportation options to emerge and flourish. Adopting objective-led TOD planning policies for new developments can effectively mitigate or even prevent many of the traffic issues associated with the car-oriented city before they even occur.

## Transit-Based Walkability

There is a strong correlation between transit and walkability, and it begins at the local level. Nearly every transit trip begins and ends with a walk. Compact, diverse and walkable neighborhoods are the basis for multimodal mobility. The Tradition Square development, for example, was built for walkable connectivity between residential and small scale retail establishment. This positions well this neighborhood for pilot micromobility and microtransit programs that could evolve into high-frequency transit corridors as demand increases. Transit could also play a role connecting highly walkable neighborhoods.

### FACTORS DRIVING THE TREND TOWARD TOD



- Rapidly growing traffic congestion
- Growing desire for quality urban lifestyle
- Growing desire for more walkable lifestyles away from traffic
- Changes in family structures: more singles, empty-nesters, etc
- Increasing number of mobility options and services
- Growing support for Smart Growth Principles



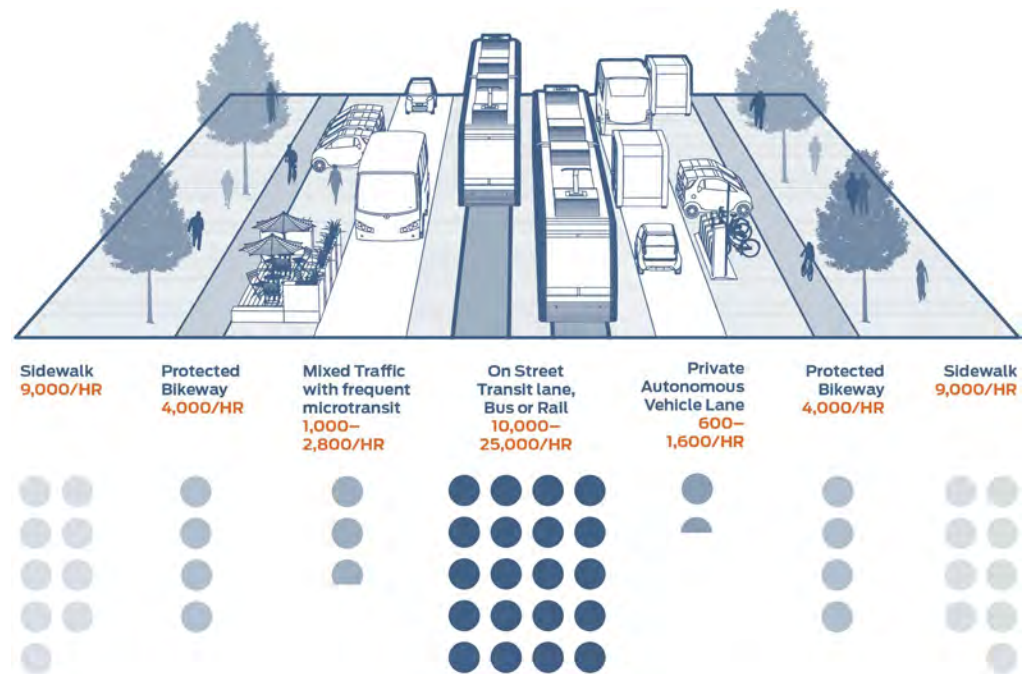


## Equitable Mobility

Changes in the automotive industry are setting the foundation for [Automated, Connected, Electric, and Shared Vehicles \(ACES\)](#) to merge carsharing and ridesharing systems to create an easily accessible way to travel. Numerous cities around the world have implemented pilot programs to test this technology and better understand the supportive policy changes needed to guide the community through this transformative period. Planning for these innovations in Port St. Lucie will result in actionable steps for improved policies and projects that can produce measurable outcomes toward achieving accessibility and livability goals.

Significant shifts in travel demand across different modes of transportation are underway. This presents a unique opportunity to [reimagine the public space, provide mobility for all, rebalance the Right-of-Way \(ROW\), and move more people with fewer vehicles](#). Designing streets to move people will require evaluating corridor capacity by mode, rather than traditional volume measures.

Advanced transportation innovations can be used to provide first and last mile connectivity, increase transit ridership, and help create a more connected, dynamic and inclusive community, where all residents can enjoy easy access to multiple destinations regardless of age or abilities. Planning for these innovations ensures new mobility delivers a fair and just transportation system for all.









Source: NACTO

## Safe Speeds

The direct correlation between vehicle travel speed, crash risk, and severity of crashes has been well documented. According to the Federal Highway Administration (FHWA), only 5% of pedestrian collisions at 20 miles per hour (mph) result in death, a number that increases up to 17 times if impacted by a vehicle traveling at 40 mph\*. Block size is another predictor of crash injury and death. Bigger blocks result in fewer, thus bigger and faster streets. Lower speeds are directly correlated with a safer urban environment, particularly for the most vulnerable street users. Many strategies, including policy and regulation, have been developed to curb vehicle speeds on neighborhood streets. Necessary trade-offs between speed and safety must occur.



if vehicle speed...	then, probability of death...
 <b>20 MPH</b>	 <b>5%</b>
 <b>30 MPH</b>	 <b>45%</b>
 <b>40 MPH</b>	 <b>85%</b>

In recent years, the literature has focused on using street design to achieve desired target speeds. A good strategy is to design roads and neighborhoods so that they feel uncomfortable at speeds higher than the desired operating speed. For existing higher speed roads, traffic calming measures can be used. Special consideration should be given to school zones and their surroundings. Neighborhood planning also plays a role, bigger blocks directly translate into fewer and wider roads. Studies have shown block size to be a strong predictor of injuries and deaths resulting from car crashes.

Safer street design, neighborhood planning, and community engagement are all key to achieving the vision set forth in this plan. Traffic safety is also an identified priority project of the Strategic Plan, which seeks to Utilizing the Florida Strategic Highway Safety Plan and Vision Zero to address 13 emphasis areas through engineering, education, enforcement, and Emergency Response. The City of Port St. Lucie's Police Department further promotes traffic safety through a speeding campaign known as "It's 30 mph for a Reason", in which PSLPD conducts daily enforcement operations in areas most reported by residents.

\* [FHWA SA-10-001](#)



## Flexibility in Design

As underscored by the COVID-19 global health crisis, travel patterns, needs, and demand are subject to sudden and radical changes. Allowing for flexibility in the design of streets and civic spaces enables communities to respond to those fluctuations swiftly and effectively, potentially exerting long lasting positive improvements.

Reliance and popularity of delivery services to access basic needs such as groceries and medication skyrocketed. In addition, an increasing number of businesses, retailers, and restaurants are offering their products through online platforms, and depend on delivery services for customer interaction. Another trend that emerged was a rise in pedestrian and bicycle activity, with an increased need for space due to social distancing norms. Allowing for flexibility in the design of roadways can facilitate these transactions.

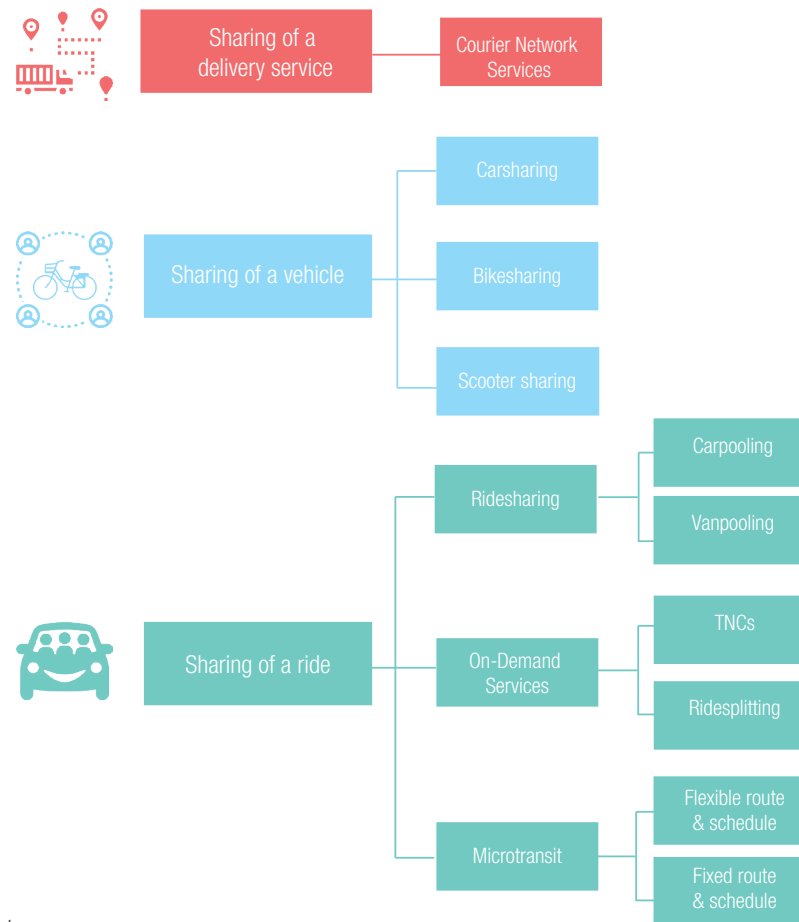
One common strategy to make street space more dynamic is to implement curbside management in suitable locations. This strategy reclaims the curbside - a traditionally underused space - for uses such as microtransit pick-up/drop-off zones, carshare parking, temporary extension of the sidewalk realm, added space for mobile vendors, parklets, or space for delivery services. Design and policy flexibility can effectively allow this space to serve different functions throughout day and night.





## What is Shared Mobility?

Generally refers to transportation services and resources that are shared among users either concurrently or one after another. Traditional public transportation services are a form of shared mobility. The recent explosion in electronic and wireless technologies has made sharing assets much easier and more efficient. Carsharing, ridesharing, microtransit, bikesharing, e-scooters rentals, and other forms of micromobility are now viable mobility options in many cities. The figure below shows the latest trends in shared mobility in the U.S. These trends represent opportunities for Port St. Lucie to supplement to their multimodal transportation network, provide choices in transit deserts and enhance first and last mile connectivity.



Source:  
St. Lucie County



## Micromobility

Bikesharing programs can leverage investment in and serve as a complement to existing transit services by offering a first and last-mile option. It can also help extend the reach of existing fixed-route bus services or connect transit lines that do not cross, alleviating capacity on congested routes. Bikesharing programs have also been found effective at introducing new riders and re-introducing former bicyclists to bicycling as a form of transportation. These programs run largely unattended offering 24/7 accessibility, and may be dockless or use a docking system. These models may offer single trips for as little as \$1.



Electric scooters are the latest example of shared mobility. E-scooters have multiple draws: childhood familiarity, dockless flexibility, ease of use, low cost, reduced environmental impact and ability to connect to transit. However, scooter have encroached on active corridors like streets, bike lanes and sidewalks; causing concerns regarding safety, regulation, and facility planning. Cities are seeking to develop regulations on e-scooter share that both promote innovation and ensure public safety.

Best practices include:

- Micromobility lanes
- Designated parking zones in non-obtrusive spaces
- Safety messages aimed at users on devices
- Cap the speed of devices within a reasonable margin
- Focus on requiring companies comply with permit obligations
- Cooperation and data sharing between stakeholders

## Autonomous, Connected, Electric, Shared (ACES)

The term ACES surfaced in the industry in recent years, it refers to autonomous, connected, electric, and shared vehicles. Deployment of ACES technology is emerging as a truly transformative trend in the industry, merging together the four biggest disruptions altering mobility and transportation. This future mobility scenario will have impacts on energy consumption, affordability, time and convenience, access to opportunities, and safety. Through planning and implementation of supportive and tailored public policies and investments, ACES technology could be an opportunity to revamp the mobility system and use of public space.

### Autonomous



The National Highway Traffic Safety Administration (NHTSA) recognizes six levels of automation or driver assistance technology. These levels range from zero automation to a potential vehicle capable of performing all driving functions under all conditions. Varying levels of automation are currently in use in the industry.

### Connected



Connectivity refers to the increased ability of vehicles to share data not only with a central hub but also with each other wirelessly. Connectivity between vehicles (vehicle-to-vehicle or “V2V”) and with the built environment (vehicle-to-infrastructure or “V2I”) will play a major role in improving roadway safety and managing traffic flow more efficiently.

### Electric



Battery-based electric vehicles (EV), hybrid electric vehicles (HEV), plug-in HEV (PHEV), and hydrogen fuel-cell vehicles (FCV) have proliferated in the market significantly over the last decade for their wide range of associated benefits. Electrification of the vehicle fleet will be critical to the development of higher levels of automation and connectivity.

### Shared



New attitudes toward vehicle ownership and wider integration of ridersharing in society are tilting the industry toward shared ownership models. A shared mobility system would translate into fewer cars on the road, a reduced need for parking spaces, and potentially cost saving benefits to users.

Automation, connectivity, electrification, and shared mobility could provide solutions for some of transportation’s most difficult challenges such as improved accessibility for mobility marginalized groups and more efficient traffic flow minimizing the need for road widening projects. For instance, a network of electric, autonomous shuttles could help lower-income and disabled Port St. Lucie residents who live in “transit deserts”. ACES may also provide delivery solutions that will allow smaller local businesses to compete with large corporations.

## Microtransit

Microtransit refers to smaller-scale transit services such as Paratransit (ADA vehicles), community shuttles, Neighborhood Electric Vehicles (NEV), and more recently, autonomous vehicles/pods.

Microtransit can be useful to public transit agencies in a number of different ways, such as a supplement for under-performing bus routes, particularly in lower-density neighborhoods, without sacrificing overall service coverage. Microtransit can also act as a first and last mile system, enabling riders to make better use of other high-capacity transit networks around them. The flexibility of microtransit allows the service to both relieve stress from crowded routes during peak hours and provide efficient demand-responsive late-night service during less-busy hours.

It's also important to note that microtransit can be a cost-effective solution for public agencies. Public-Private Partnerships (P3s) between providers and government agencies can be powerful coordination tools that maximize coverage and optimizes efforts.



## BEST PRACTICES/LESSONS LEARNED

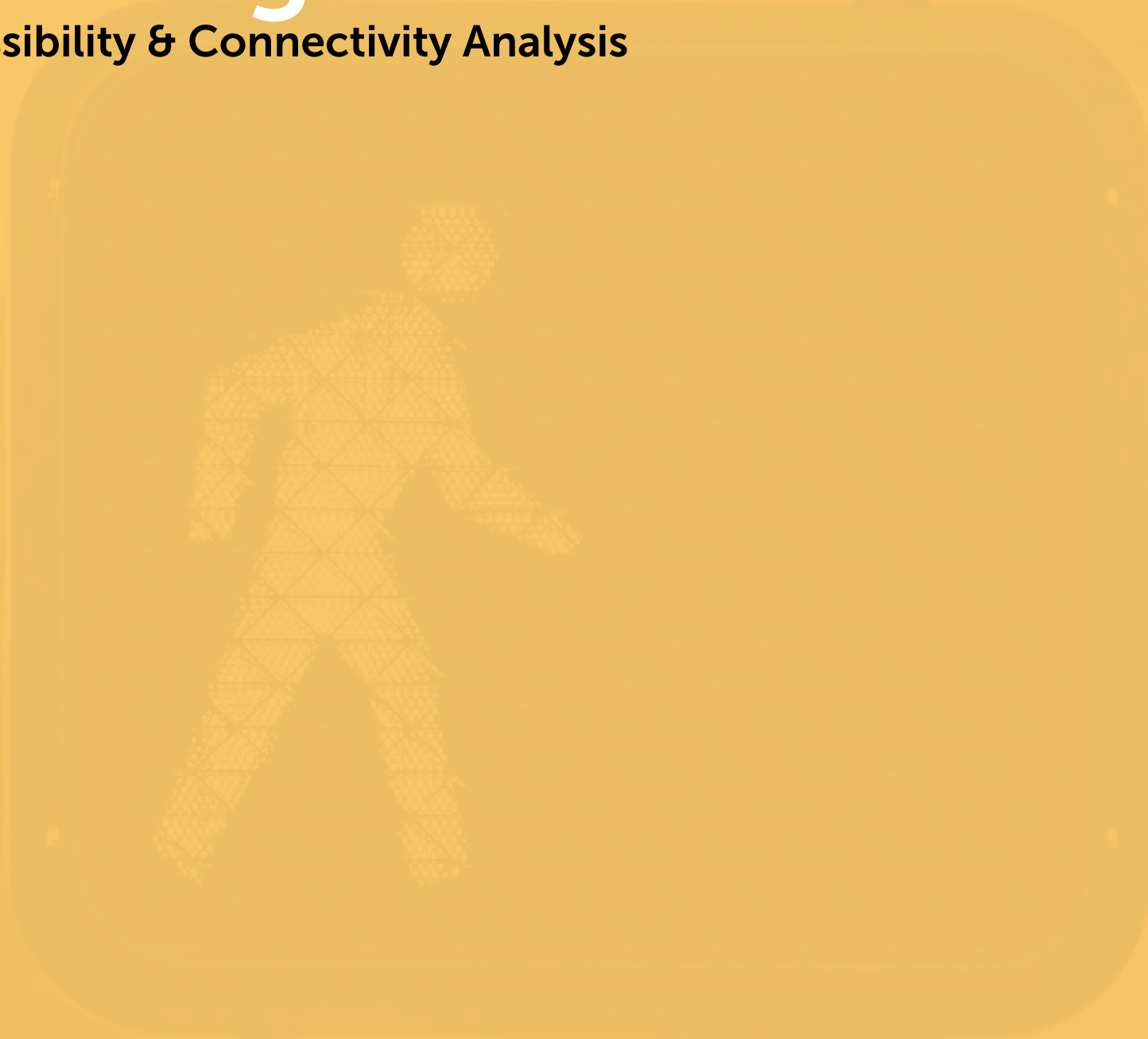
- Be proactive and act through Guiding Principles
- Implement a comprehensive permit program
- Take the time to pilot new projects
- Communicate, engage, and educate the public
- Encourage competition
- Be transparent in the procurement process
- Host industry forums to kick-start conversations
- Plan for an iterative and flexible process
- Be open to change

**“Walk Before You Run”**  
Getting the fundamentals right is crucial prior to implementing automated vehicles (AVs) and other new mobility options. Providing a safe environment for pedestrians through the implementation of Complete Streets and low-scale improvements (e.g., more shade, cleanliness, continued maintenance, connectivity, lighting) is vital to a car-light culture.



# Existing Conditions

**Accessibility & Connectivity Analysis**



## Travel Demand

In 2017, the most common method of commuter travel in Port St. Lucie was driving alone, with single-occupancy vehicles accounting for 79.2% of all trips. Carpooling accounted for 12.7% and approximately 4.55% worked from home. For comparison, statewide shares are 9.36% and 6.21% respectively (ACS 5-year estimate). Walking, bicycling, and public transit accounted for less than 2% combined. Figure 1 shows the percentage of trips made using each mode of transportation. It should be noted that these estimates do not capture non-commuting trips such as those carried out for recreational uses, exercising or running errands.

Household car ownership rates are displayed in Figure 2 for Port St. Lucie and distributed between a series of car ownership buckets compared to the national averages for each bucket. The largest share of households in Port St. Lucie have 2 cars followed by 3 cars, both surpassing the corresponding national average. Providing sustainable mobility strategies, such as shared and autonomous microtransit, can reduce reliance upon automobiles for trips in Port St. Lucie.

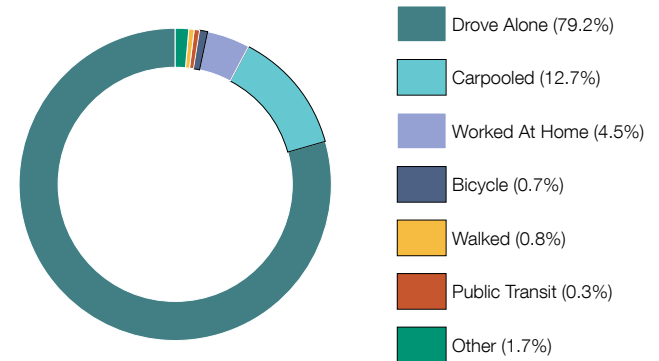


Figure 1 Commuter Modal Share

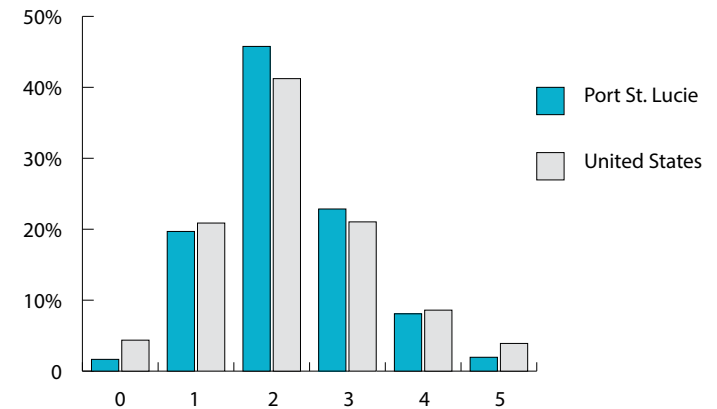
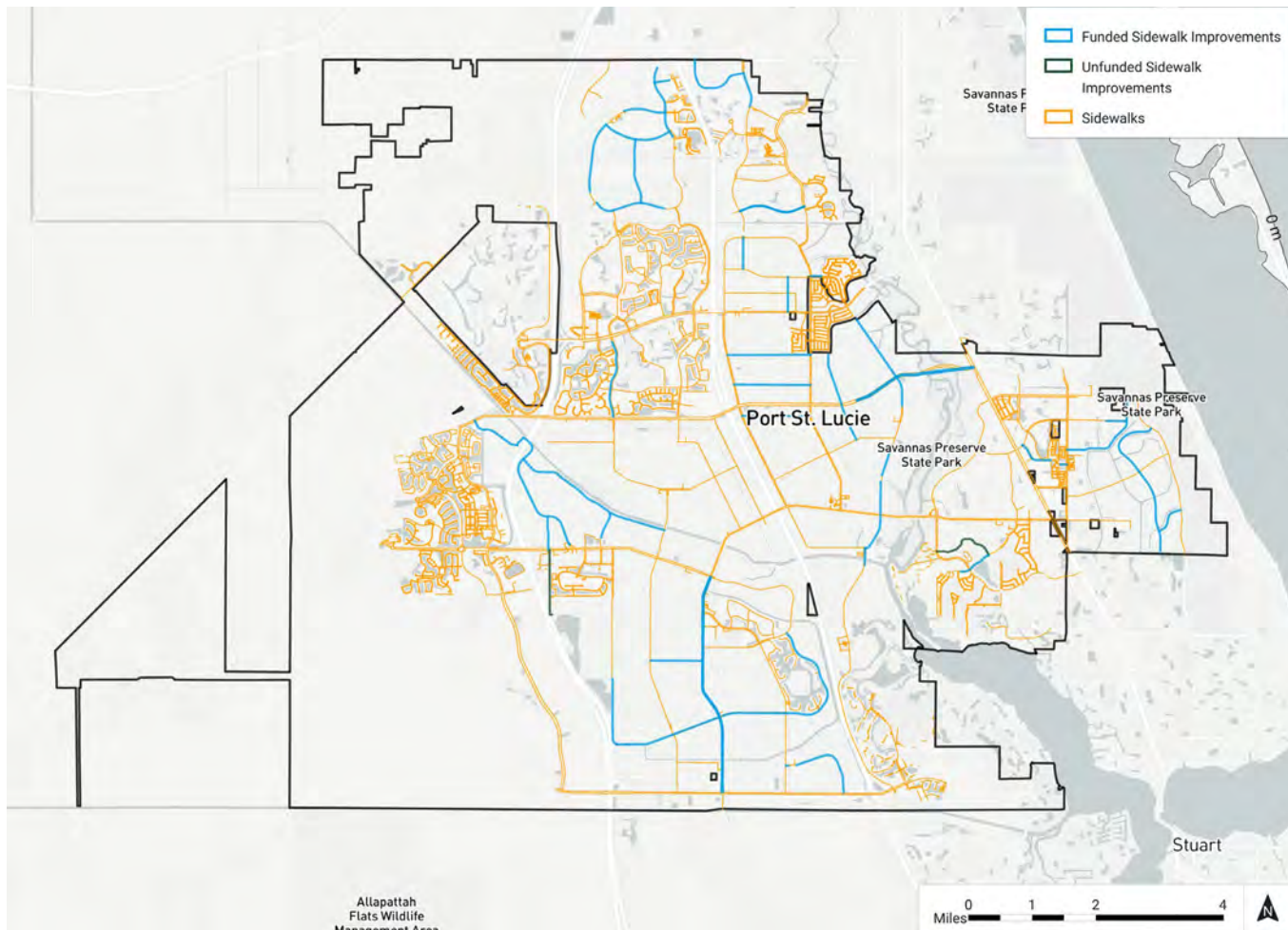


Figure 2 Car Ownership





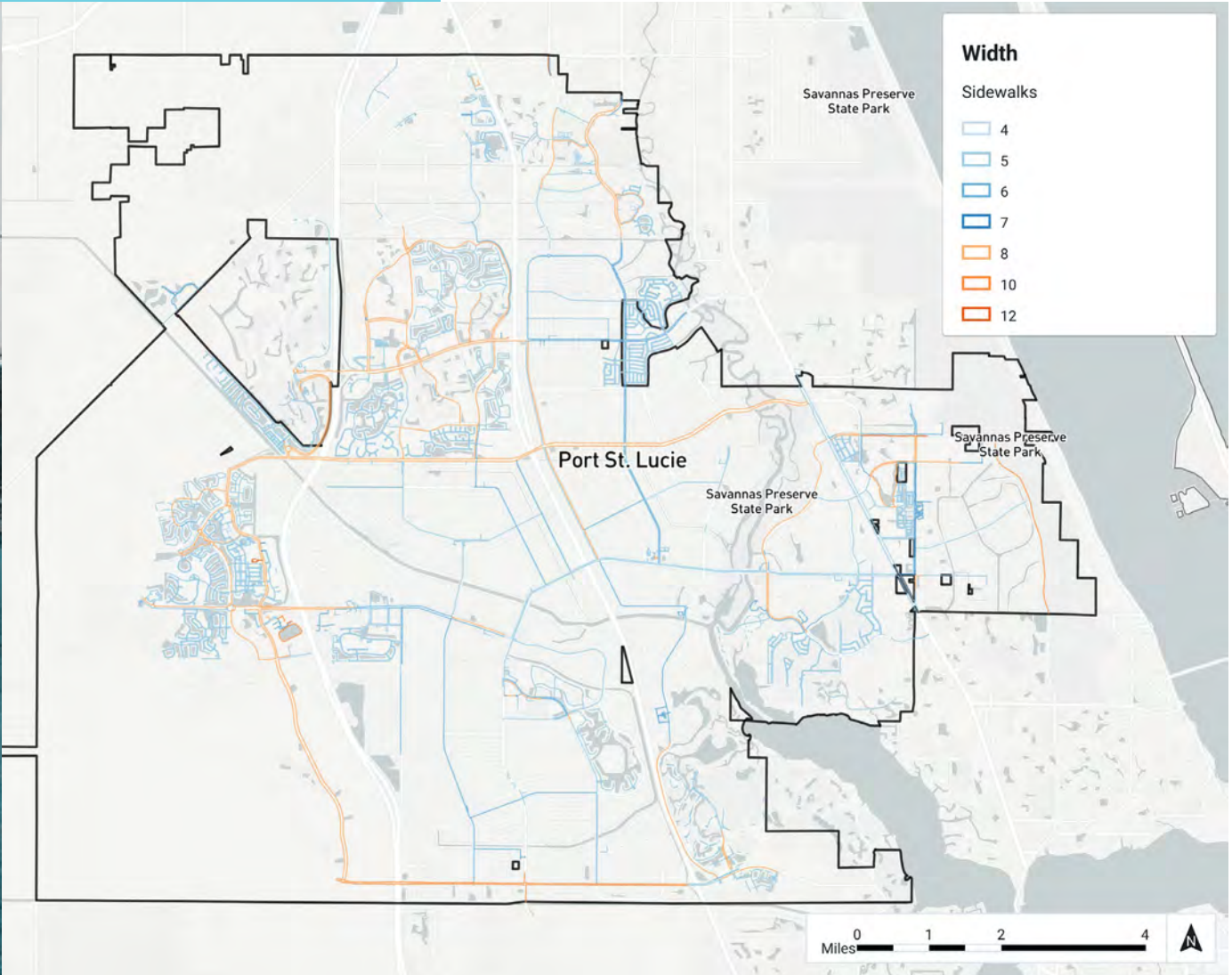
**Map 1 Existing and Planned Sidewalks**



## Sidewalks

Port St. Lucie's existing and programmed sidewalk network is shown in [Map 1](#). Sidewalk improvement projects have been programmed throughout the city through 2028 as part of the 10-Year Sidewalk Improvement Master Plan. These projects are funded through a variety of local, state, and federal funding sources, including revenue generated through the half-cent sales tax.

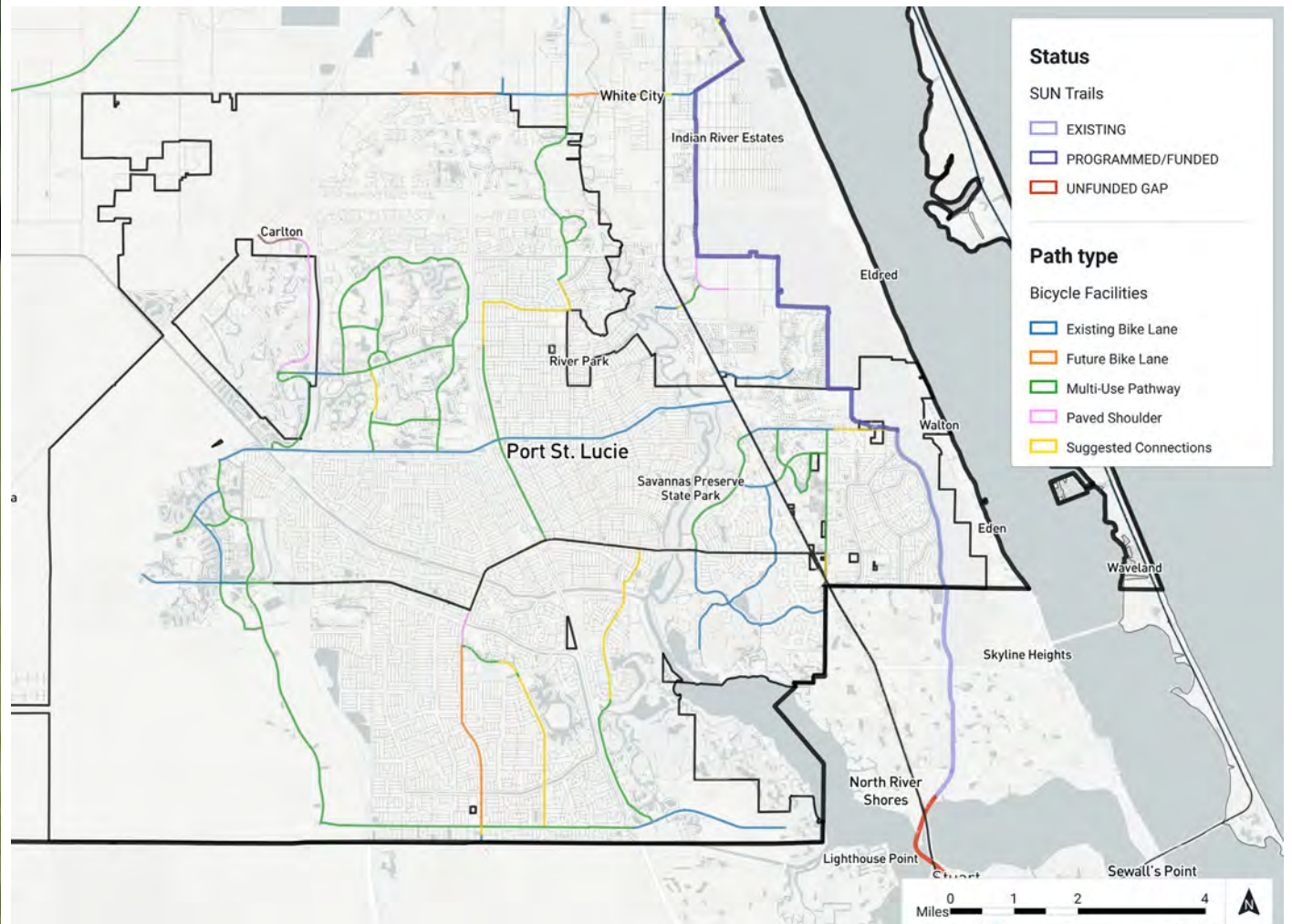




Map 2 Existing Sidewalks Width

An evaluation of the widths of existing sidewalks (Map 2) reveals the emergence of a potential network of facilities eight (8) foot or wider. These wider corridors have the potential to become multi-use pathways that serve the needs of both pedestrians and bicyclists. The City is undergoing an effort to implement these facilities wherever feasible as part of the Sidewalk Master Plan.





Map 3 Bicycle and Multi-Use Facilities



## Bicycle and Multi-Use Facilities

The St. Lucie TPO'S Bicycle Facilities Inventory and Suggested Connections are shown in [Map 3](#), as well as the East Coast Greenway (ECG). The portion of the ECG that runs through Port St. Lucie, which is part of Florida's Shared-Use, Nonmotorized Trails (SUNTrail) System, is mostly built out with the remaining segment programmed for implementation.

In addition to bicycle facilities, there is a system of trails within the city used by both pedestrians and bicyclists, and which includes the Woodstork Trail and the North Fork of the St. Lucie River.

Bikeshare company Zagster recently started operating in the neighboring city of Fort Pierce. As of 2020, no bikeshare programs were currently in operation in Port St. Lucie.

Challenges remain in the pedestrian/bike network in terms of connectivity, landscaping, and destination accessibility.

A draft map prepared by the Port St. Lucie Parks and Recreation Department is shown on page 35. This map outlines greenways recommendations developed from previous studies and collected data, and as thus informs the Multimodal Plan presented in the next chapter.









# Different types of trails



*Riverside trail*



*Trail connecting open spaces*



*Trail along residential neighborhood*



*Nature walk trail*

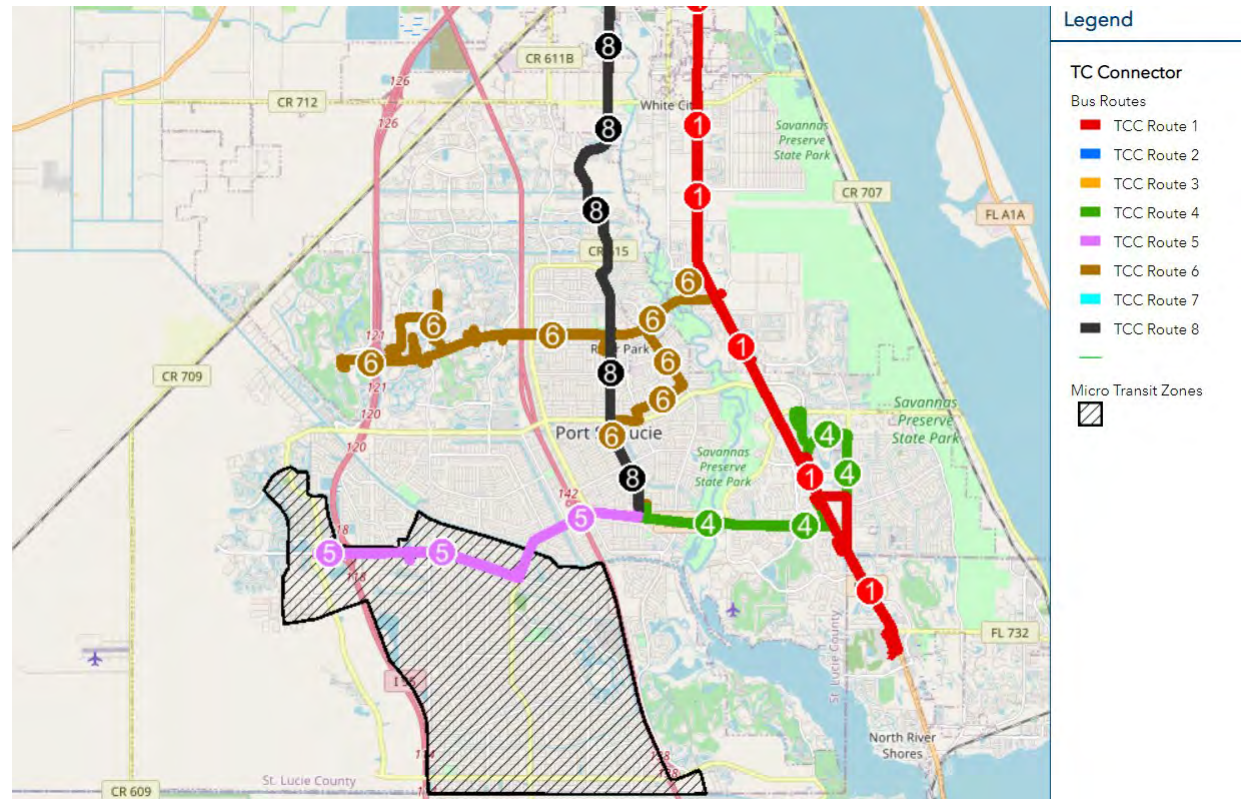


## Existing Transit Services

Port St. Lucie has two public transportation services, a [fixed route bus service](#) and a [demand responsive system](#), as well as a number of Park and Ride lots for regular commuters. The transit provider is the Treasure Coast Connector.

The fixed route system provides service along specific routes with scheduled arrival times at predetermined bus stop areas. This is the type of system most people refer to when they mention a city bus. There are currently eight (8) fixed routes providing public transportation service in St. Lucie County. Routes 1, 4, 5, and 6 operate within the city ([Map 4](#)). The demand responsive system is an origin to destination system for eligible disadvantaged individuals and seniors. Passenger trips are generated by calls from passengers or their agents at least twenty-four (24) hours in advance, to a call operator, who then schedules a vehicle to pick up the passenger. Since instituting a fare-free system in 2017, the Treasure Coast Connector has tripled fixed route ridership.

Significant transit “deserts” remain within the City, particularly in the western and southern areas.



**Map 4 Existing Transit Services**

To supplement transit in these areas, a [new free ride-hailing pilot microtransit program](#) known as “TCC On-Demand” recently started operating in southwest Port St. Lucie. The program is funded through a grant by the Florida Department of Transportation (FDOT). It services multiple neighborhoods not served by traditionally public transit services, specifically in the South Port St. Lucie/Gatlin Boulevard/Tradition area. This service provides door-to-door trips within a ten-mile area and includes bus stops on Route 5 to provide riders with access to the Fixed Route system. As data from this program becomes available, this program may be used as a model for similar services.

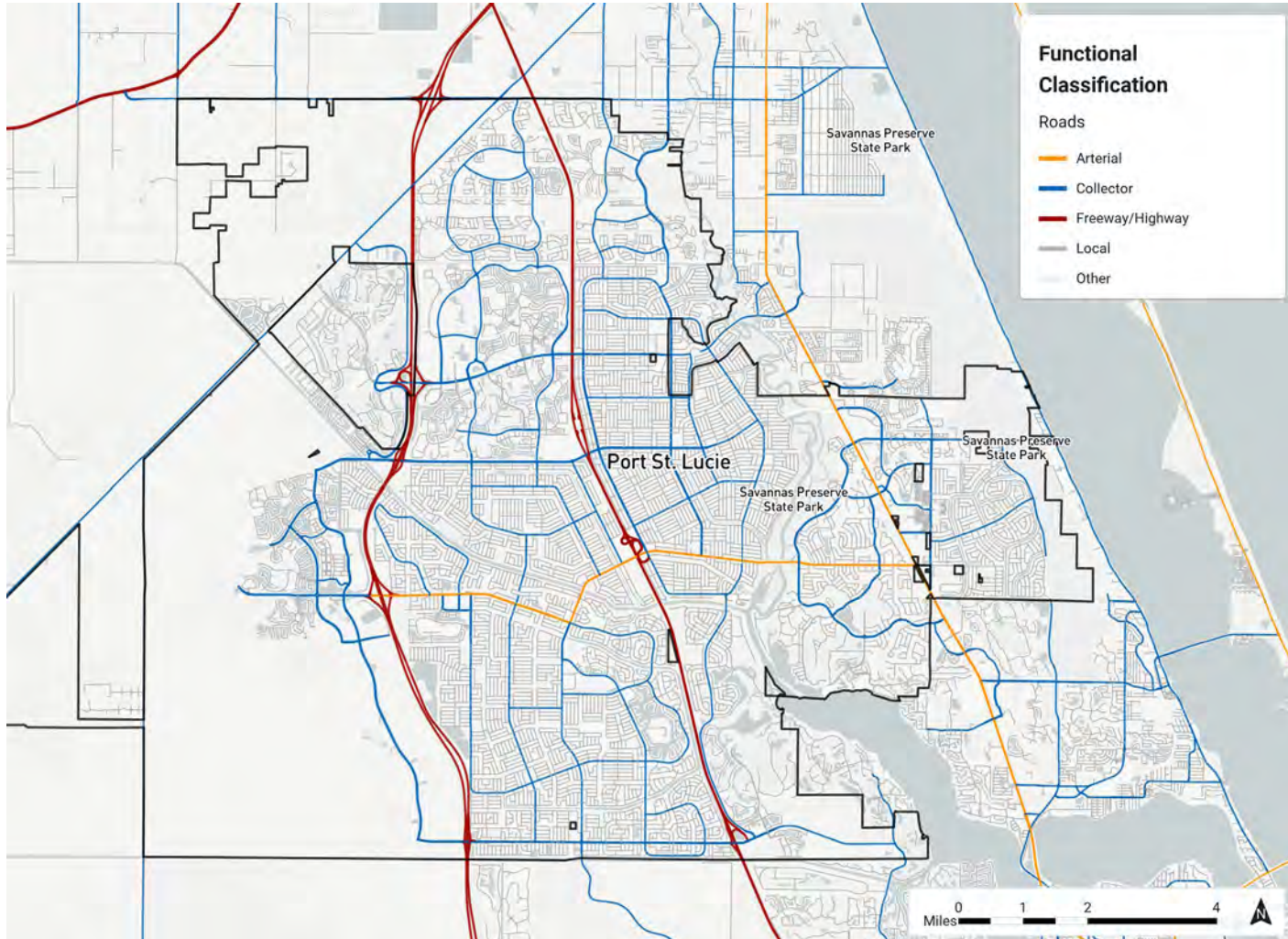




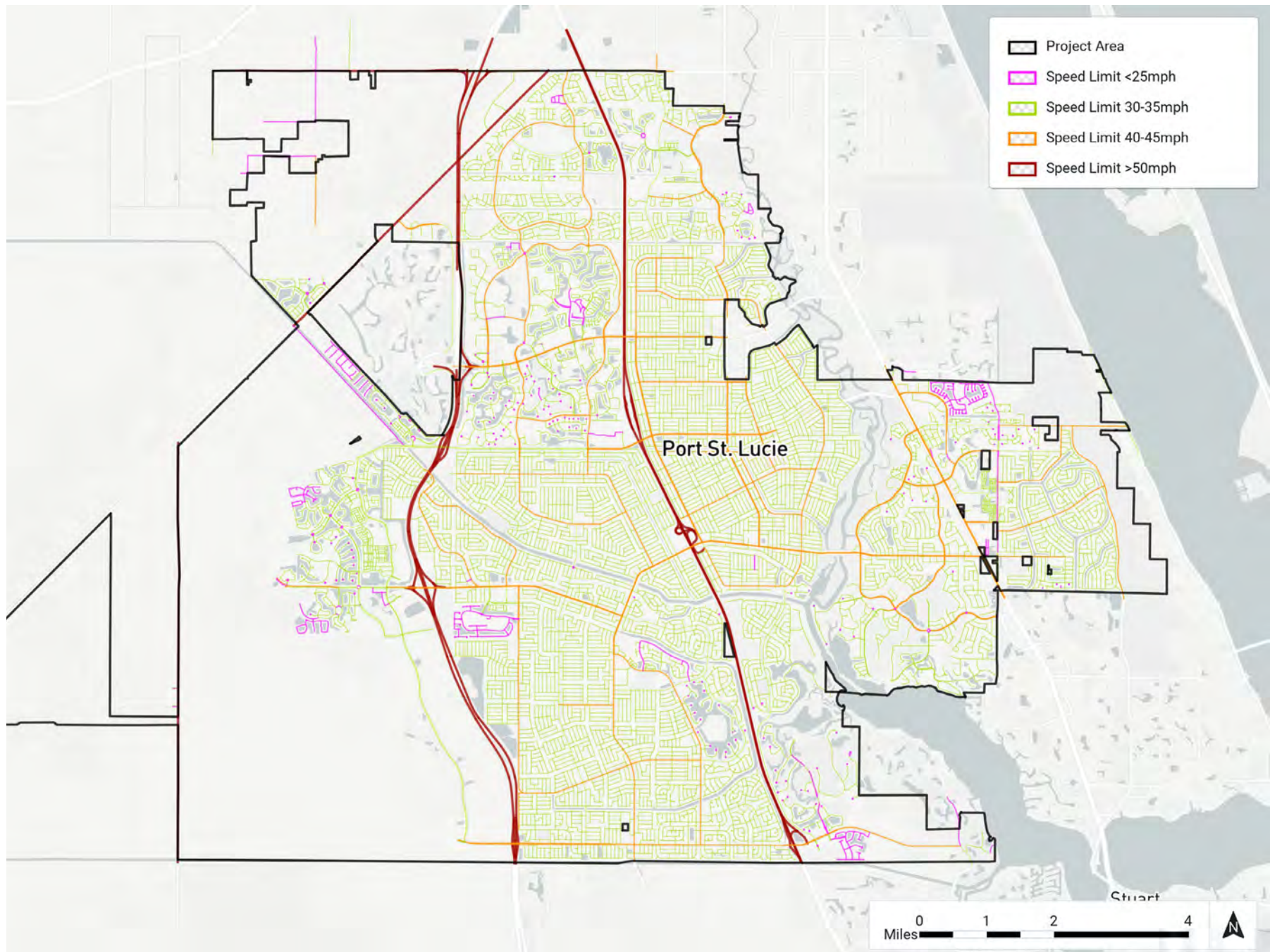
# Roadway Network

## Functional Classification

Functional Classification refers to an ordering system used by the The US Federal Highway Administration to set design standards according to a roadway's ability to move traffic and provide accessibility. Most streets in Port St. Lucie are classified as either local or arterials (Map 5). More recently, context has gained a more prominent role in the designation of street design standards. The Florida Department of Transportation (FDOT) Design Manual establishes a complementary ordering system referred to as Context Classification which introduces transect zones (see page 14) .



Map 5 Functional Classification



Map 6 Citywide Speed Limits



## Speed Limits

As shown in [Map 6](#), the vast majority of local roads in the City of Port St. Lucie have speed limits between 30-35 miles per hour (mph). Collectors and arterials range between 40-45 mph, and highways such as Florida's Turnpike and I-95 have speed limits above 50 mph. Only a small number of internal roads have speed limits of 25 mph or lower.

Although lower speeds tend to be associated with lower functional classifications such as local roads, it is essential to consider the context of the surrounding areas when determining the desired speed for motor vehicle travel in any given corridor. Transect zones, such as those introduced by the Context Classification of the Design Manual, provide guidance on transitioning between rural, suburban and urban settings. Special consideration should also be given to school zones, parks, and other destinations with expected high levels of pedestrian and bicycling activity.



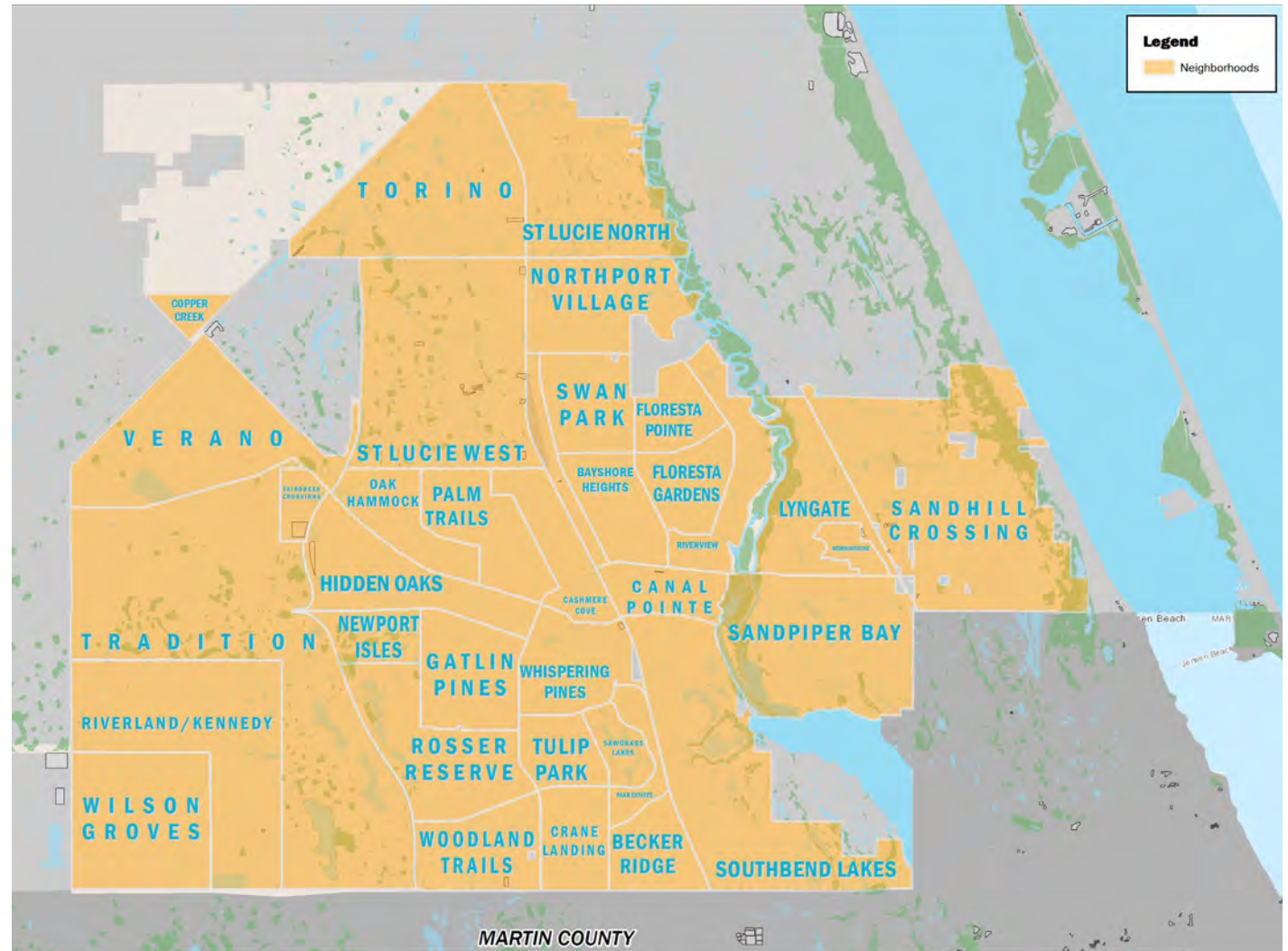


## Neighborhoods

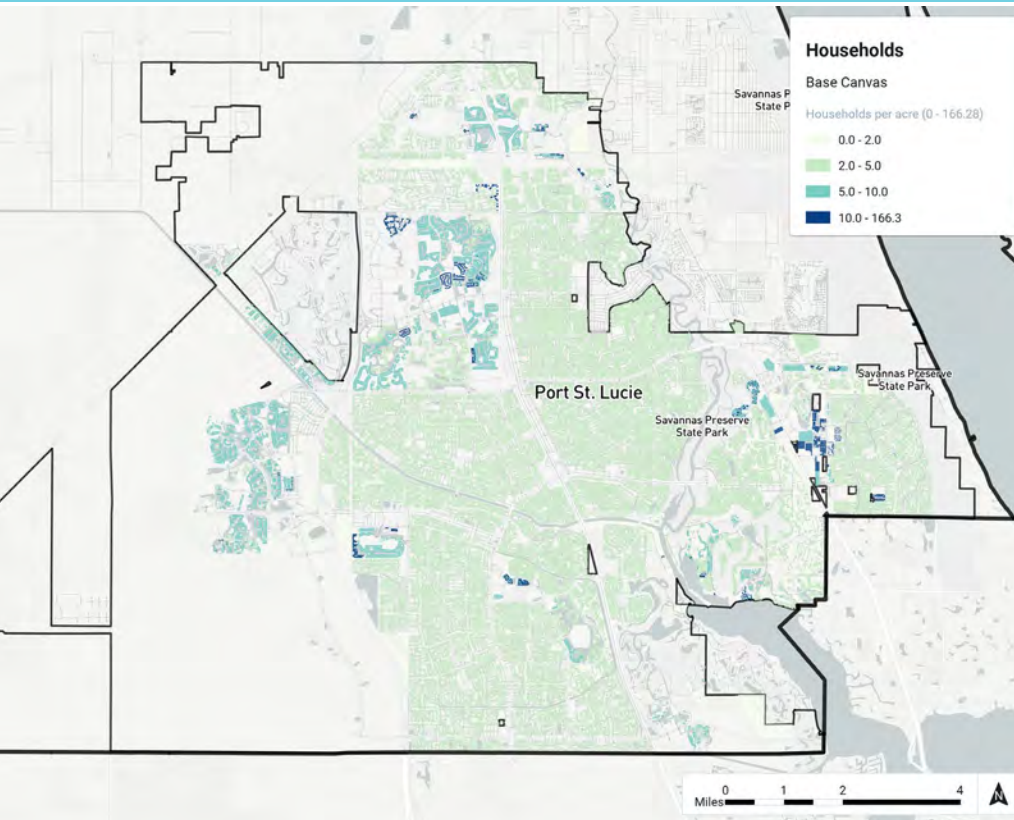
The Neighborhood Improvement & Community Engagement (NICE) Program is one of the city's community building initiatives. The initiative seeks to define neighborhood boundaries and kick start improvements.

The NICE program is an excellent resource for community engagement and neighborhood-scale implementation of appropriate speed management strategies or microtransit pilot.

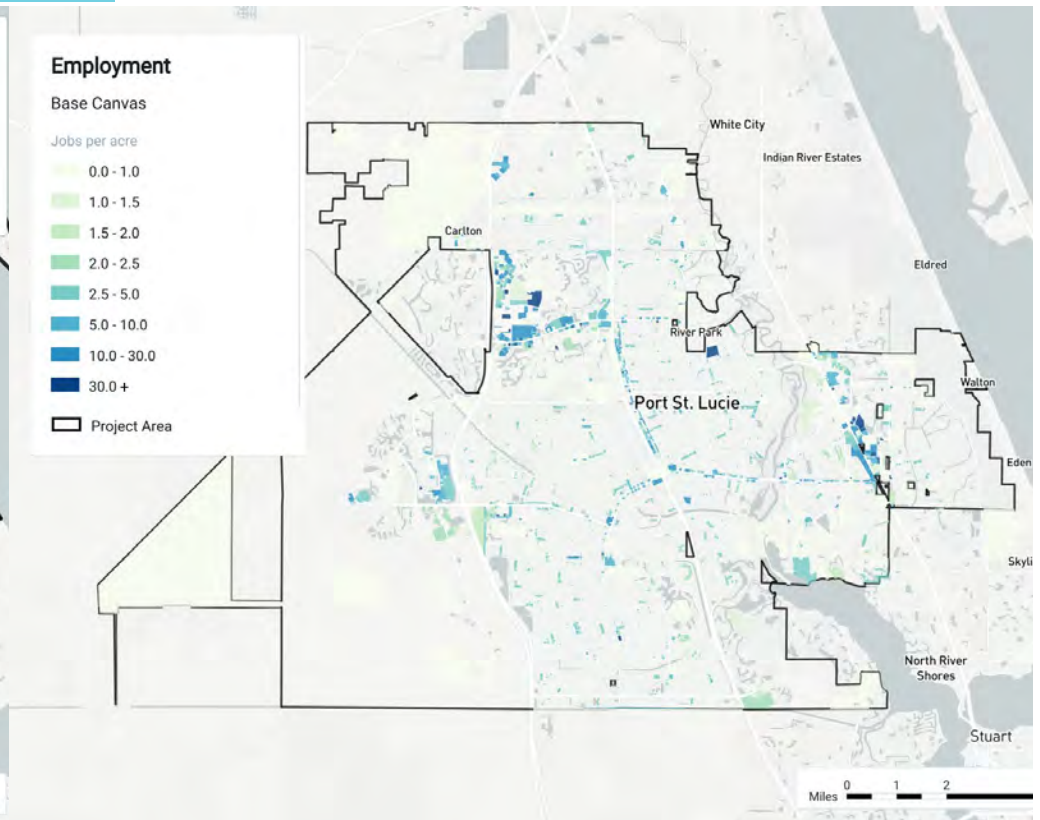
Map 7 shows the neighborhoods in the city.



Map 7 Port St. Lucie Neighborhoods



Map 8 Population Density



Map 9 Employment Density

## Density

Port St. Lucie is characterized by a predominance of low density, single-family housing residential neighborhoods (Map 8). The largely predominant density across the city is under 5 households per acre. Nonetheless, a growing variety of housing options have created areas of higher residential density in the city, particularly in the communities of Torino and Tradition. Employment is concentrated along selected corridors of substantial commercial activity such as along U.S.1, Port St. Lucie Boulevard, St. Lucie West, and increasingly in the Tradition area, as shown in Map 9. As new neighborhoods emerge in the western annexation areas, population redistribution and growth is expected.

Data from a number of U.S. cities suggests that increasing urban density at the suburban level has a larger impact in reducing miles driven than increasing density at the urban level. Consequently, an increase in density from sprawling levels to the ten to twenty housing units per acre range could significantly reduce car dependency in strategic areas of the city. In addition, operating transit in higher density neighborhoods often results in less need for heavy subsidies and overall better quality of service.

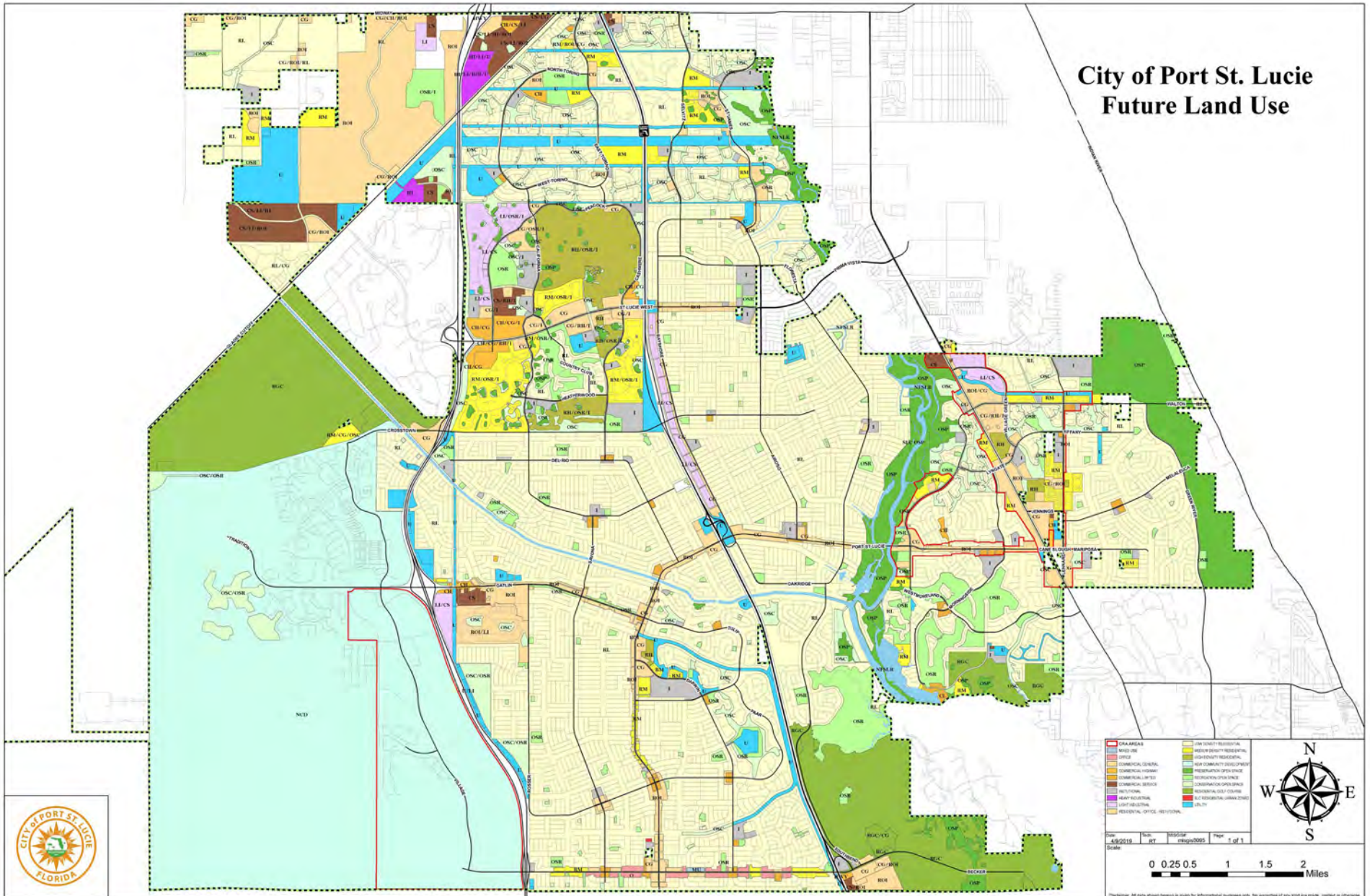
## Future Land Use

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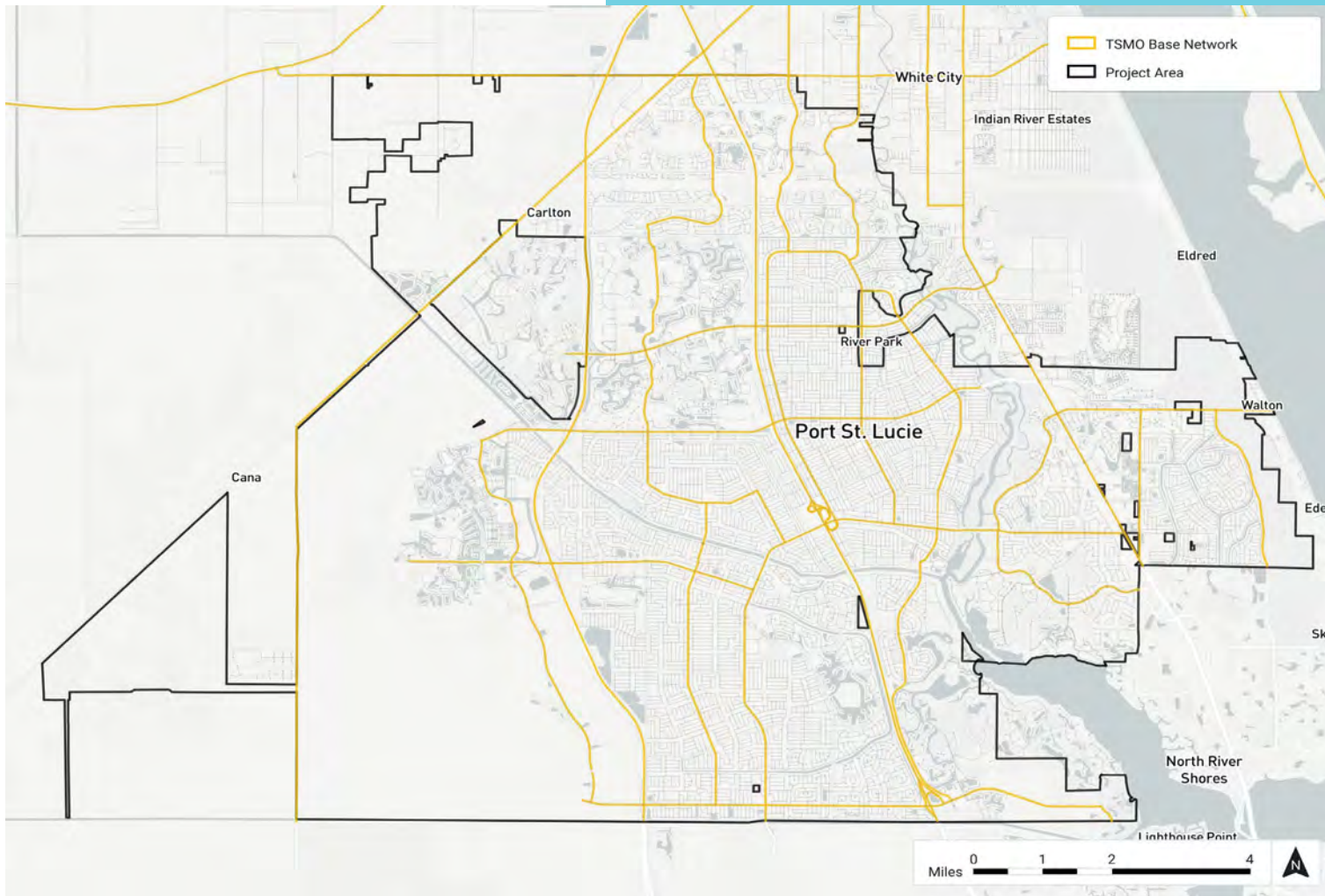
The City of Port St. Lucie Comprehensive Plan, last updated in 2012, guides future growth and development and regulates land use, providing the basis for zoning regulations. The Future Land Use Element of said plan designates proposed future general distribution and location of different categories for land development. Over 40% of the future land use acreage in the city is designated as low density residential. Notably uncommon, mixed-use development accounts for only 0.10% of designated future land uses. The western annexation area is designated as New Community District (NCD), allowing for residential, commercial, industrial, and institutional uses. The NCD designation encompasses Tradition, Western Grove, Southern Grove, Riverland, and the Wilson Grove.

Integrated, mixed-used environments create a variety of destinations within walking distance, thus minimizing the need for car travel and leading to potentially reductions in vehicle miles traveled, greenhouse gas emissions, and household transportation costs. Even in low-rise communities, high levels of walkability and transit use levels are typically observed in mixed-used areas. These development patterns also leads to economic revitalization by creating opportunities for small scale retail and other small businesses to grow. The Tradition Square Development, for example, is built for walkable connectivity between residential, small scale retail and open space areas.





Source: City of Port St. Lucie

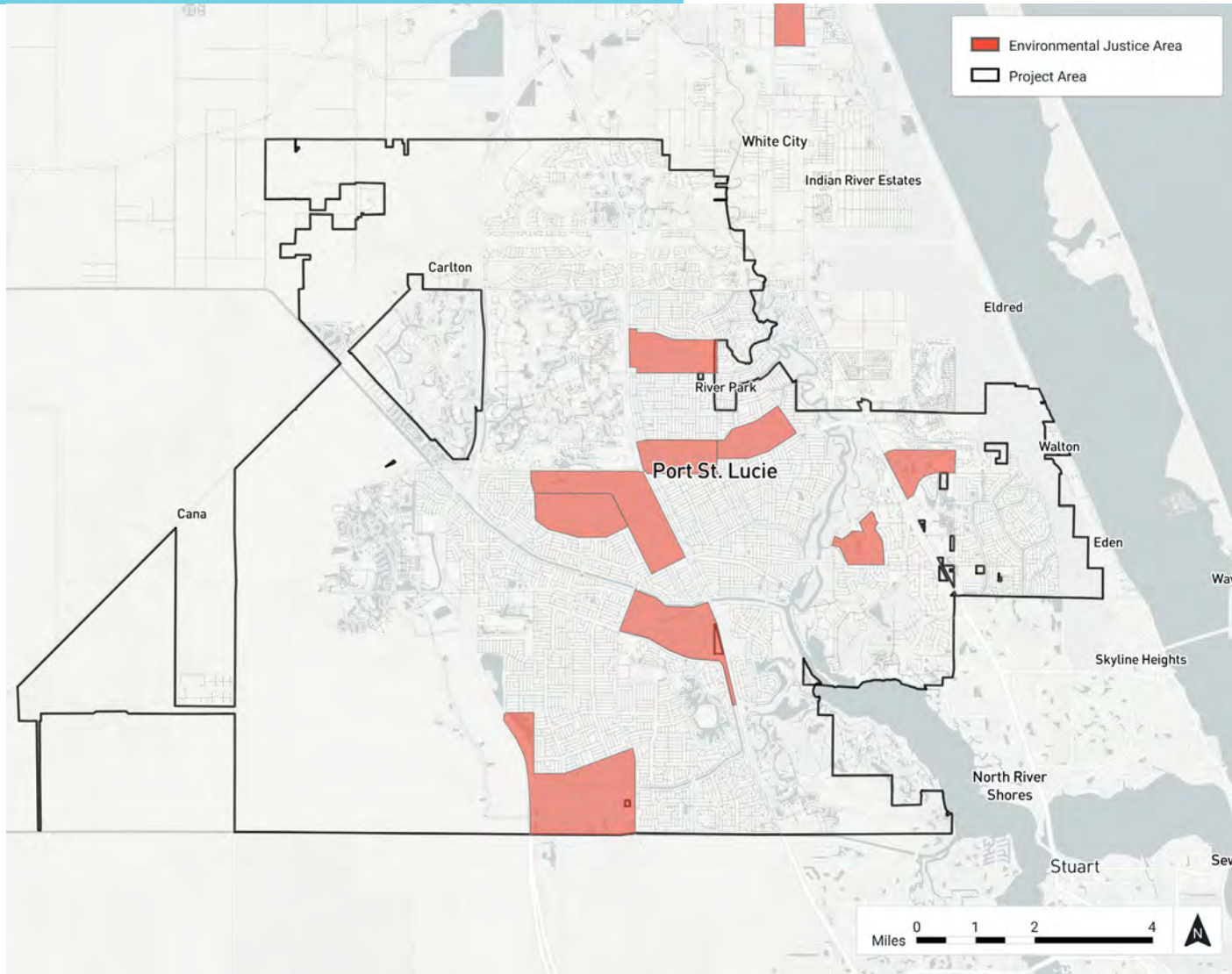


Map 10 TSM&O Strategic Network

## Transportation System Management and Operations (TSM&O)

Transportation Systems Management and Operations (TSM&O) strategies have become an integral tool for the planning and operation of transportation networks. TSM&O strategies seek to preserve capacity while enhancing the efficiency, reliability, and safety of the system, operating under the understanding that “we cannot build our way out of congestion”. The Treasure Coast TSM&O Master Plan identifies a strategic network suited for the deployment of TSM&O strategies (Map 10).





Map 11 Environmental Justice Areas

## Environmental Justice Areas

Environmental Justice Areas were identified by the TPO at the county level, representing census tracts where 50 percent or more individuals live in poverty or 50 percent or more of the population identifies as a minority group (Map 11). These communities warrant prioritization for investment related to the enhancement of access to transit and job opportunities.

# The Multimodal Plan

## Vision and Goals







Port St Lucie is a thriving community where residents and visitors can enjoy safe, clean, beautiful, mixed-use neighborhoods connected through an accessible transportation system that caters to pedestrians, bicyclists, transit and roadway users.



Goal 1



Infrastructure and  
Neighborhoods



Goal 3



Sustainable  
Growth



Goal 4



Regional  
Connectivity

# PROJECT AND POLICY RECOMMENDATIONS

The Multimodal Plan envisions two complementary networks, the Active Travel Network and the Motorized Network, which integrate into one mobility system. The intent of these networks is to provide Port St. Lucie residents with accessibility to a variety of mobility choices to travel within their neighborhoods and throughout the city.

## Proposed Active Travel Network

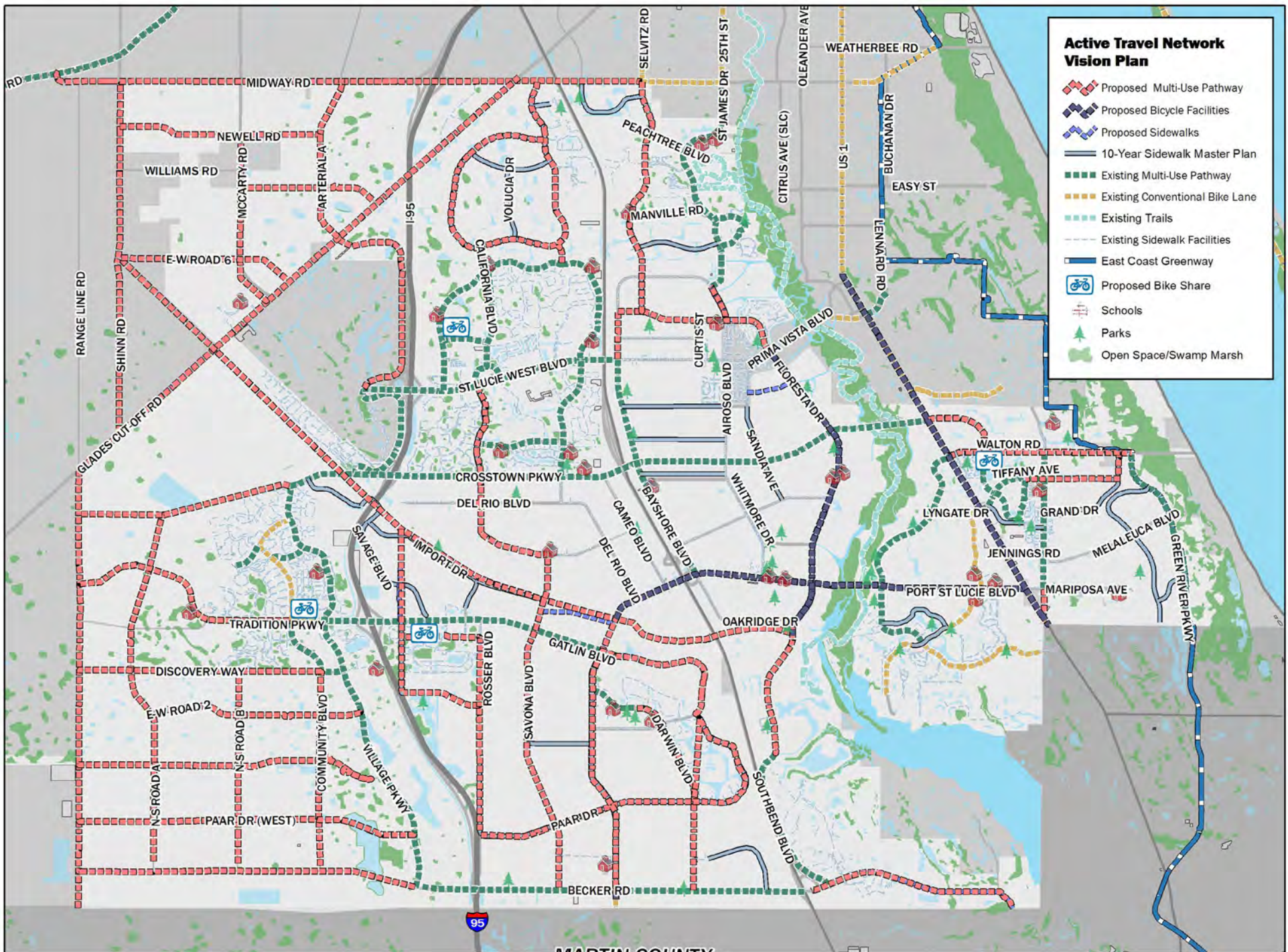
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The Multimodal Plan envisions a network of strategic corridors suited to serve the needs of pedestrians, bicyclists, and other micromobility users, and as shown in [Map 12](#). The Active Travel Network includes facility types such as multi-use pathways, bicycle lanes, and sidewalks to effectively connect every neighborhood in Port St. Lucie. With multiple, uninterrupted North-South and East-West multi-use pathways, the plan provides residents with boundary-to-boundary access to the entire city. One of such proposed corridors is a multi-use pathway along the C-24 Canal which would connect the Northwestern Annexation Area to the eastern half of the city. Another such connection is a multi-use pathway proposed along a Florida Power & Light (FPL) easement connecting the C-24 Canal to Gatlin Pines and Roosser Reserve neighborhoods.

Local neighborhood access is further provided within each neighborhood to numerous destinations, including schools and parks. In the Western and Northwestern Annexation Areas, multi-use pathways are proposed along all new two (2) four (4) lane roadways.

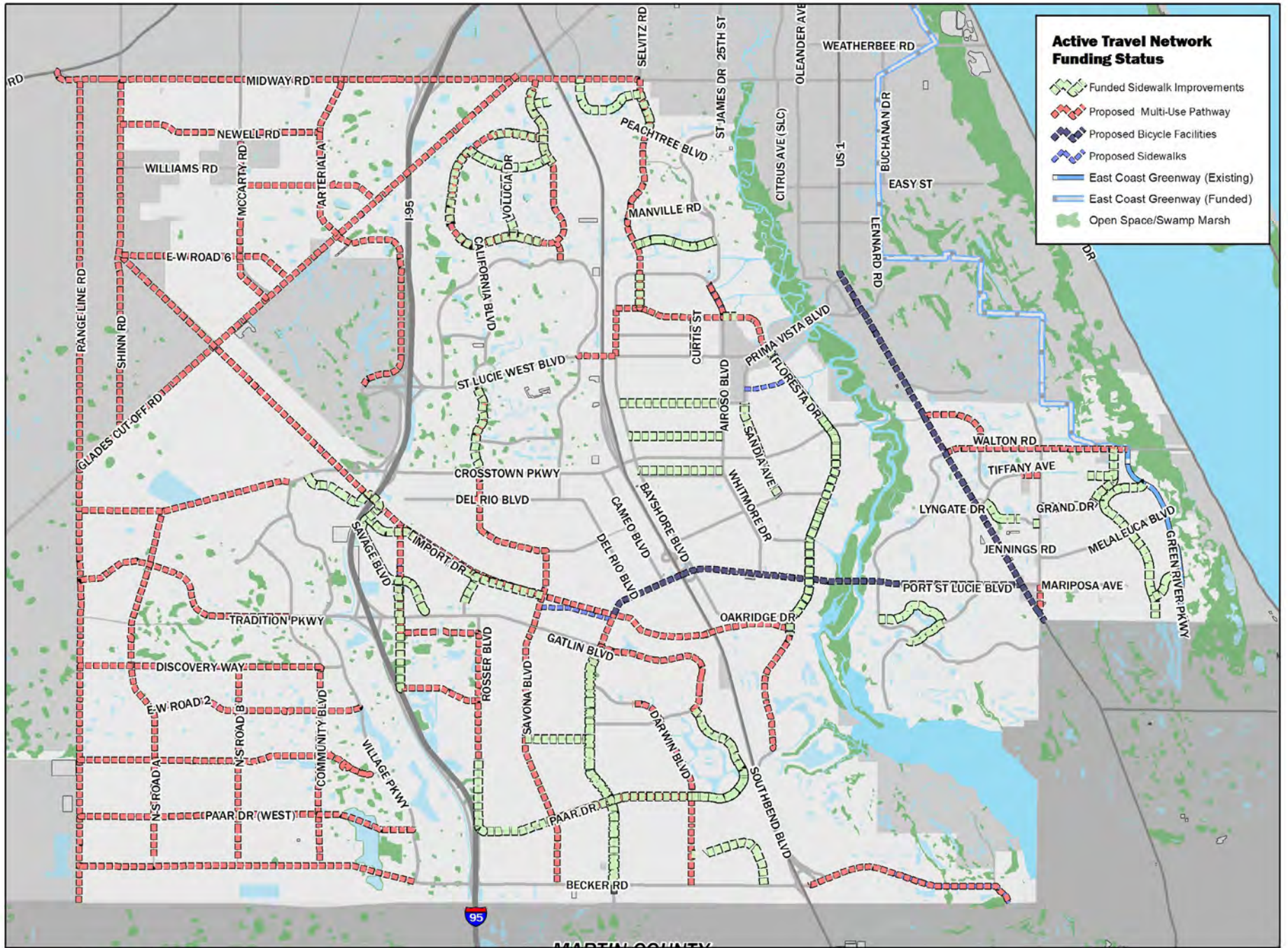
The full list of improvements may be found in [Appendix A](#). Further recommendations are provided in this chapter.





Map 12 Active Travel Network Vision







## Funding status

Multiple segments within the Active Travel Network have been programmed for funding as part of the City's 10-Year Sidewalk Master Plan and Half-Cent Sales Surtax. Funded and proposed facilities are shown in [Map 13](#). Wherever feasible, it is recommended that projects implemented as part of the 10-Year Sidewalk Master Plan be designed with the minimum eight (8)-foot width associated with multi-use pathways. Some of these projects include the following:

- Paar Drive from Port St Lucie Boulevard to Savona Boulevard
- Paar Drive - Darwin Boulevard to PSL Boulevard
- Tiffany Avenue - School Site to Walton Drive
- Hillmoor Drive - Hospital to Woodstork Trail
- Hillmoor Drive - Lennard Rd to Playground
- Morningside Boulevard – Treasure Island to Cambridge Street
- Floresta Drive – Prima Vista Boulevard to Airoso Boulevard
- Southbend Boulevard - Oakridge Drive to Eagle Drive
- Macedo Boulevard - Selvitz Road to St James Boulevard
- Selvitz Road - Milner Drive to Peachtree Boulevard

## Making Space for People

The number one thing pedestrians need is space. Pedestrian-friendly streets create the appropriate conditions for residents and visitors to explore the neighborhood, exercise, meet, or simply enjoy a comfortable and safe walk. Installing streetscape elements can improve the sense of place of a street and create pleasant pedestrian environments. As thus, the facilities proposed as part of the Active Travel Network Vision are meant to incorporate a variety of Complete Streets elements into their designs. Where feasible, consideration should be given to designing and constructing sections of the Active Travel Network as linear parks.

Context and types of street are important considerations in the design of people-oriented streets. A suburban street and an urban street do not serve the same needs, but they both need to serve people. Design elements must be adjusted to fit the needs and desires of the community while maintaining the local character of the city. Multiple cities across the U.S. have developed Complete Streets design standards and adopted them into city ordinances as a path toward increased walkability and multimodal mobility.





## Bike Lanes Are Not Enough

Streets are generally designed to maximize throughput for commuting to work trips. Nonetheless, this approach does not account for the large share of other trips people complete regularly such as running errands, going to the store, or exercising. Although many of these trips could be completed without need for a car, streets are rarely designed for walking, bicycling, or any other form of micromobility. In addition, the rise of vehicle sharing and autonomous vehicles creates an added need for space. This could be an opportunity to make walking and bicycling safer, but the opposite may also be true.

A dense, interconnected network of bicycle facilities is one of the best ways to encourage people to use a bicycle for all types of daily trip making. Other key consideration to encourage bicycling include designing protected intersections, offering different types of bicycle facilities for different comfort levels, and providing end-of-trip amenities such as bike racks.

Bikeshare program are recommended to be explored in areas that provide access to both residential and commercial uses, specifically in Torino, Tradition Square, City Center, and in the Jobs Express Terminal.

When it comes to bicycling, few elements of the built environment have a larger impact than access to a well-connected network of dedicated bicycle infrastructure. Gradually building out this network throughout the different neighborhoods in the city is an essential step that will allow bikeshare and other micromobility program to thrive in Port St. Lucie.







## Shade & Vegetation

The integration of landscape and vegetation in Active Travel Network corridors should be addressed throughout all phases of project development, including agency coordination, initial design, budgeting, construction, and maintenance.

Integrating native vegetation into roadway design allows for the built infrastructure to merge with the existing ecosystems in a less invasive manner. It regulates ground temperatures, provides refuge from the rain, and slows down stormwater by intercepting precipitation. Green Infrastructure projects, which also double as beautification projects have also been found to impact target speed. Bare streets, particularly those in low-density neighborhoods, allow and encourage higher speeds.

Shaded, low volume neighborhood streets can be inviting to pedestrians and bicyclists even in the absence of dedicated infrastructure.





Vegetated curb extensions, sidewalk planters, and landscaped medians can all be used for traffic calming purposes. Green surface stormwater drainage systems such as vegetated swale may also be incorporated. These systems are designed to store, infiltrate, and filter stormwater runoff. The most effective of these systems are bioswales.

Bioswales consists of wet or dry swales made out of grass, rocks, and other types of vegetation, that are sloped to move water through the system in an efficient manner. These systems can dramatically reduce pollutants and contaminants in an effort to increase water quality. Since they have flexible siting requirements, bioswales can be integrated with medians, curb extensions, bulb outs, and other public space or traffic calming strategies. Local governments, in collaboration with planners, landscape architects, and designers may design these sustainable, decentralized stormwater management system, adding to the overall appearance of neighborhood streets. Homeowner associations and local community groups may play a part in maintaining these systems.



Source: ASLA



Source: Hallandale Beach

## Motorized Network & Shared Mobility

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The Motorized and Shared Mobility Network takes into consideration planned and programmed projects consistent with the vision set forth in the Long Range Transportation Plan (LRTP), the Transit Development Plan (TDP), the Transportation Improvement Program (TIP), as well as input received from the St. Lucie TPO, St. Lucie County, various City departments, and elected officials.

Recommendations for the Motorized & Shared Mobility Network are shown in [Map 14](#). The vision include a series of new two (2) and four (4) lane roadways in the Western and Northwestern Annexation areas to create well-connected street grid, enabling these communities to grow on the foundations of a well-connected roadway network. An effort should be made to design all new roads as Complete Streets in accordance to the context surrounding them. Intersection Improvements are also recommended along the proposed Jobs Express Terminal, which will provide regional connectivity to the city. The plan also includes two proposed Turnpike interchanges at Midway Road and Crosstown Parkway.

Transit recommendations include new or improved fixed-route transit services connecting areas with higher population density to employment centers. These recommendations, shown in detail in [Map 15](#), were developed in collaboration with St. Lucie TPO and St. Lucie County and are in accordance with the long-range transportation plan. New proposed services in the city include Crosstown Parkway, Gatlin Boulevard, Midway Road, Port St. Lucie Boulevard, and Selvitz Road/Bayshore Boulevard.

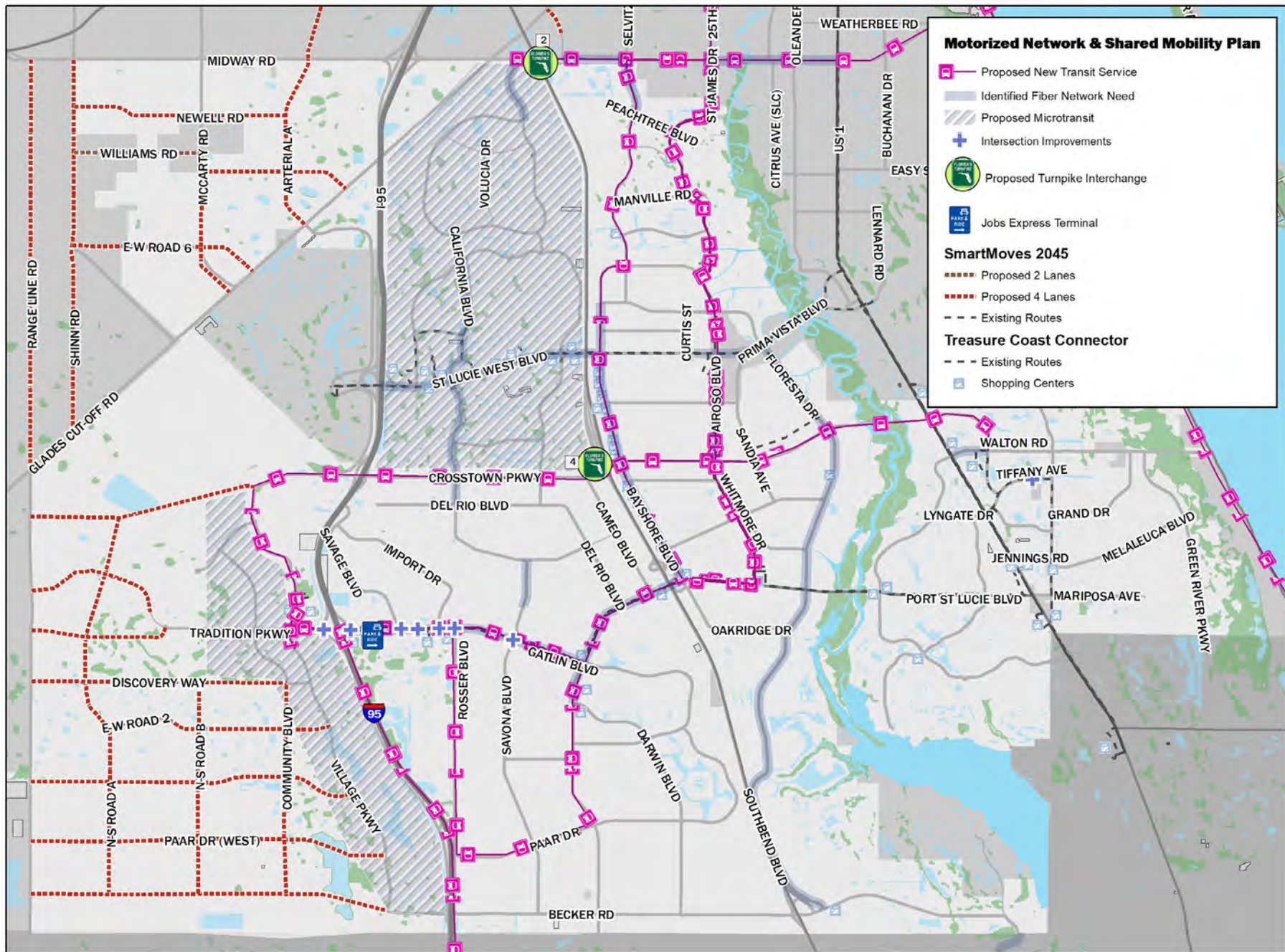
Routes with existing and expanded services, a mix of surrounding land uses, and higher densities and intensities could set the foundation for a premium transit network. Prioritizing walkability and multimodal improvements along potential premium transit corridors, such as US-1 and Port St. Lucie Boulevard, will be essential to the growth in demand required for high frequency premium transit service. Redevelopment or targeted infill strategies should be considered in these locations.

Microtransit pilot programs are recommended in areas adjacent to but not served by fixed-route transit services, particularly neighborhoods that incorporate a mix of uses and therefore have a wider variety of destinations accessible by this mode of transportation. The Torino and Tradition areas were identified for microtransit services. In the Tradition community, the City of Port St Lucie partnered with autonomous vehicle leader BEEP. Inc. and land developer Mattamy Homes for a BUILD grant application. If granted, the pilot program will provide residents with new transportation options on a separated 25-mile multimodal Tradition Trail, including walking, biking, and driverless passenger shuttle opportunities. To support the development of these and other technologies in Port St. Lucie, candidate projects for fiber connectivity as identified by the Treasure Coast TSM&O Master Plan are incorporated to this plan as initial steps to advance the deployment of ACES technology in the city.

[Map 16](#) shows transportation improvements programmed through the Transportation Improvement Program (TIP) and Half-Cent Sales Tax Projects.

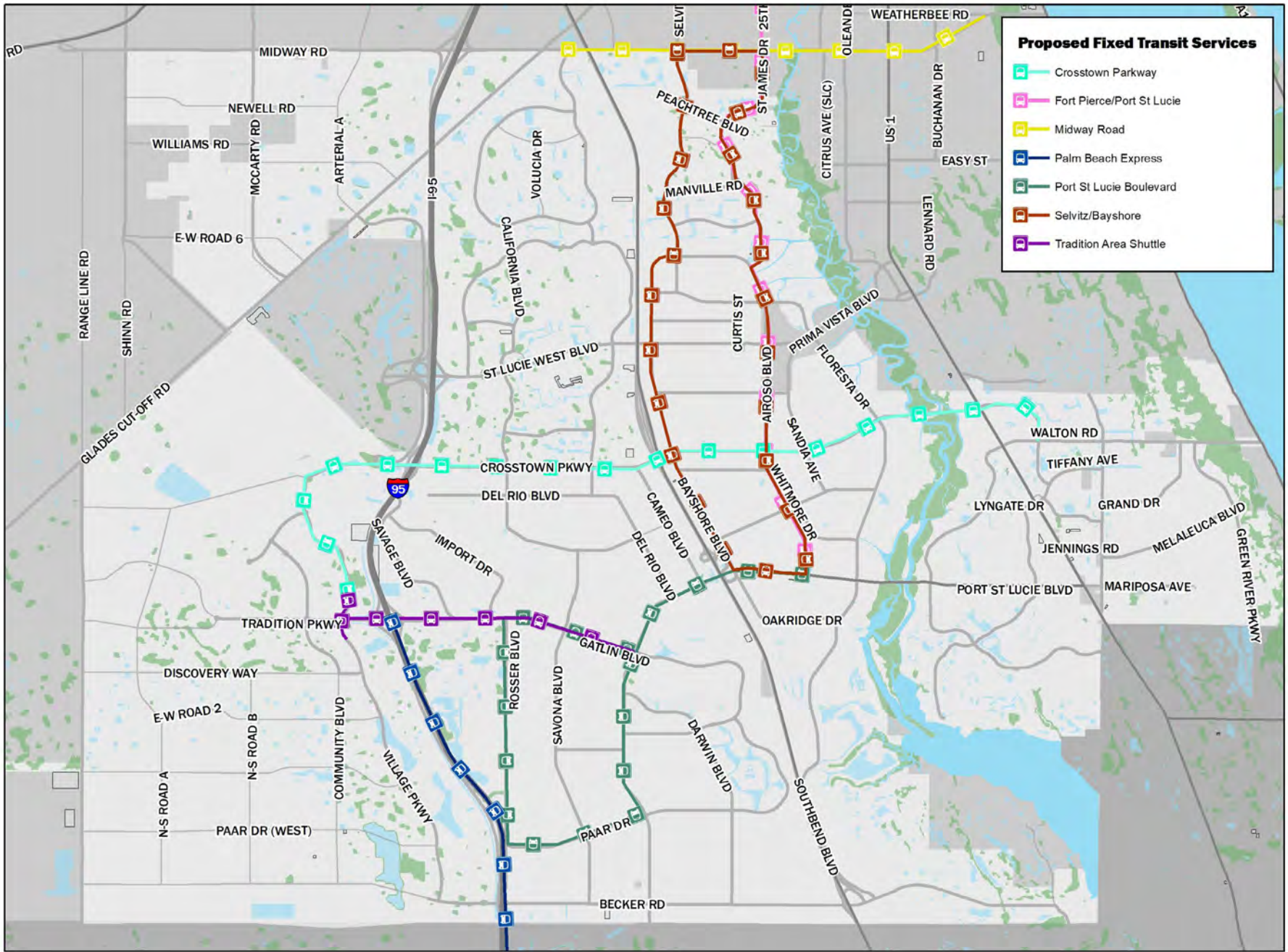
A full list of project recommendations may be found in Appendix A.





Map 14 Motorized & Shared Mobility Network Vision





Map 15 Proposed Transit Services





## Managing Speeds

Many strategies, including policy and regulation, have been developed to manage vehicle speeds on neighborhood streets. Street design techniques should be used to achieve desired target speeds. Higher design speeds often mandate larger curb radii, wider travel lane widths, and on-street parking restrictions. Implementation of speed management strategies may be used to create low-stress networks within neighborhoods in which pedestrians and bicyclists feel and are safer. Street design techniques that use speed management strategies - such as the ones listed below- create friendlier, safer, and more livable neighborhoods.

- Road & Lane Diets
- Enhanced/raised crosswalks
- Median and Pedestrian Crossing Islands
- Horizontal Deflections (chicanes, roundabouts)
- Vertical Deflections (speed humps, raised intersections)
- Traffic Control Elements (Rectangular Rapid Flash Beacons (RRFB))

It is strongly recommended that a comprehensive community engagement plan is developed prior to implementing areawide speed management strategies in order to consult the public early on in the planning process. After a neighborhood has been identified as a good candidate for a traffic calming study, temporary pilot demonstration projects are recommended to test out strategies never before used in the community.



*Diamond  
diverter*



*Textured  
intersection*





*Roundabout*

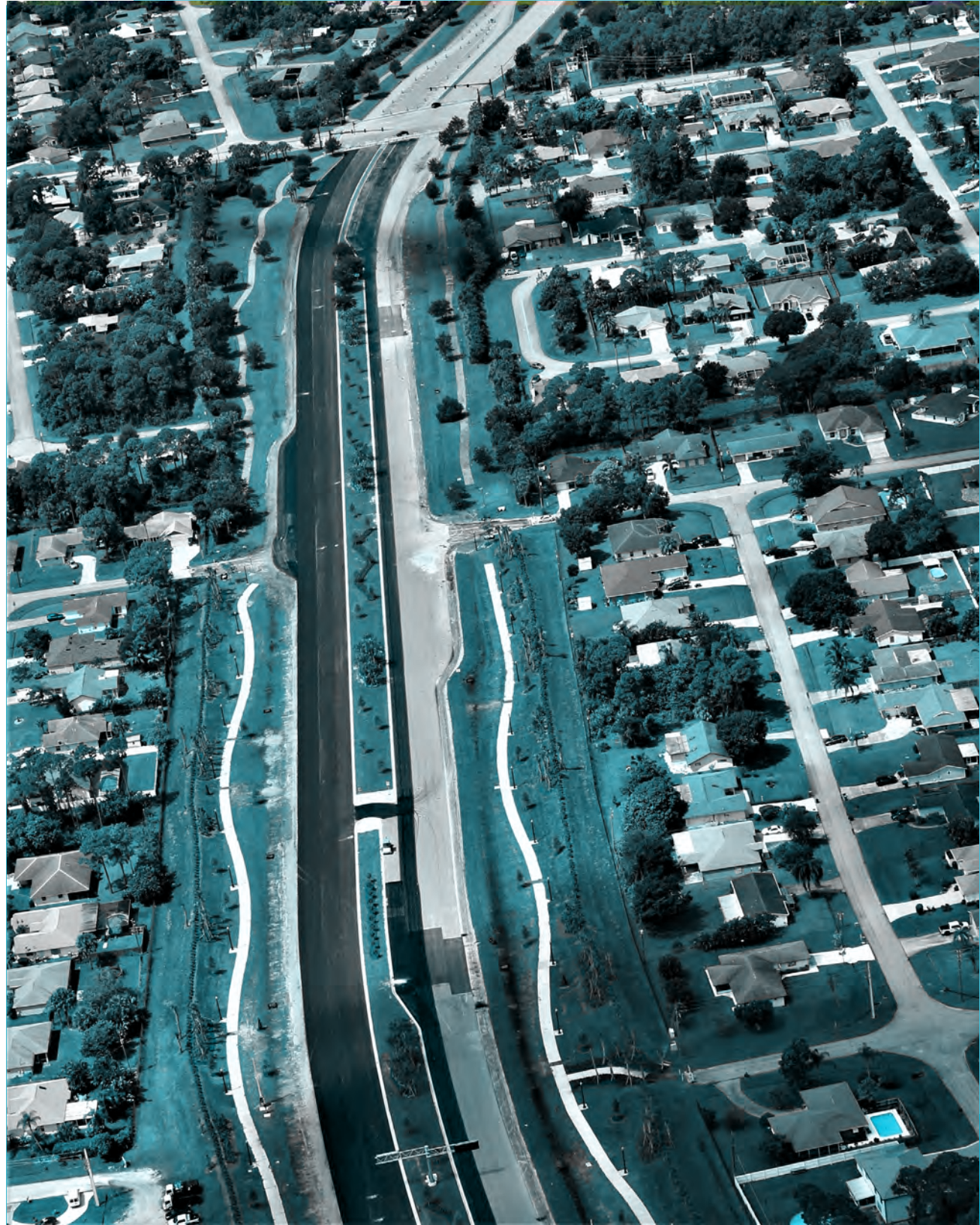


## Next Steps

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Not every neighborhood in the City of Port St. Lucie is expected to grow as a transit-oriented development. Nonetheless, in areas of both high and low density, neighborhood structure is essential to the successful operation of any transit system. Every neighborhood in the city can be more transit supportive, more walkable and offer a higher quality of life to its residents. Neighborhoods must be encouraged to develop around well-defined centers. These centers can be characterized by higher intensities of commercial or mixed-use developments. Other destinations such as civic spaces, parks, and plazas are prominent for their role in gathering and solidifying communities. Investment in those type of facilities is highly endorsed to increase the number of destinations accessible to the population by walking and biking. Over time, these centers can transform into mobility hubs, as more mobility choices are introduced in each community.

The following pages provide [Strategies & Next Steps](#) recommended for the implementation of each of the goals of the Multimodal Plan.





## Goal 1 Infrastructure and Neighborhoods

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The City of Port St. Lucie strives to provide safe, comfortable, and efficient infrastructure that supports and integrates all modes to connect neighborhoods and to foster a high-quality transportation system.

- **Strategy 1.1** Create multimodal streets for pedestrians, bicyclists, transit users, and motor vehicles.
  - ✎ **Next Step:** Implement the multimodal plan recommendations identified in [Map 12](#) and [Appendix A](#).
  - ✎ **Next Step:** Conduct planning studies to establish multimodal quality level of service standards, as per the Comprehensive Plan.
  - ✎ **Next Step:** Incorporate context classification in future updates to the Comprehensive Plan, with the intention of designing roadways and streets in context with the urban form and desired speed through which they pass.
  - ✎ **Next Step:** Incorporate multimodal considerations and recommendations in all locally funded roadway widening and resurfacing projects.
  - ✎ **Next Step:** Leverage FDOT District 4 Multimodal Scoping Checklist to request multimodal improvements - including implementation of Active Travel Corridors - on state roads such as US-1 and Port St. Lucie Boulevard.
- **Strategy 1.2** Deploy Placemaking strategies to create lively, beautiful, green active travel infrastructure and public spaces.
  - ✎ **Next Step:** Leverage and coordinate with the Keep Port St. Lucie Beautiful (KPSLB) program to introduce shade trees, bioswales, and other landscaping and placemaking elements along corridors identified in [Map 12](#).
  - ✎ **Next Step:** Continue to coordinate efforts between Planning and Parks and Recreation to develop a system in which neighborhood parks function as nodes for active travel corridors, creating linear parks where feasible.
  - ✎ **Next Step:** Conduct public outreach and educational campaigns to promote safety and encourage a culture of bicycling and walkability.

■ **Strategy 1.3** Provide safe and equitable modes of transportation to all neighborhoods in the city.

- **Next Step:** Build upon Traffic Calming Policy to conduct areawide speed management programs in neighborhoods with existing or desired high levels of pedestrian and bicyclist activity.
- **Next Step:** Conduct safety and traffic calming studies, as needed, to enhance pedestrian and bicyclist safety along routes connecting to transit, parks, public schools and other community facilities.
- **Next Step:** Make shared mobility investments in walkable neighborhoods such as Tradition and Torino, including on-demand shared services and bikeshare programs.
- **Next Step:** Use data from TCC On-Demand, as it becomes available, to study the feasibility of trolleys or electric shuttle systems to serve areas with limited access to the fixed-route transit system.
- **Next Step:** Encourage Park-and-Ride projects, such as Jobs Express Terminal, to support the existing high levels of carpooling in the City and continue to promote shared mobility.

■ **Strategy 1.4** Encourage future development and related transportation improvements to address accessibility and connectivity needs proactively rather than reactively.

- **Next Step:** Introduce form-based code in future updates to the Comprehensive Plan to emphasize walking, bicycling, and transit accessibility in new developments and redevelopments.
- **Next Step:** Designate key corridors such as Port St. Lucie Boulevard and US-1 for premium transit service and incorporate them into future transportation and land use elements of the Comprehensive Plan.
- **Next Step:** Update Port St. Lucie Road Impact Fee Ordinance to provide incentives such as impact fee credits to employers for telecommuting options in correlation with potential reductions in vehicle trips.



## Goal 2: Sustainable Growth

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### Invest in healthy, safe, and walkable neighborhoods to stimulate socially, economically, and environmentally sustainable growth.

#### ■ Strategy 2.1 Identify strategies to make motor vehicle use more sustainable.

- **Next Step:** Foster and provide incentives for the deployment of electric-vehicle infrastructure in urban centers and in regional mobility hubs such as the Jobs Express Terminal, City Center, St. Lucie West, and the Tradition neighborhood.
- **Next Step:** Invest on digital equity solutions to ensure everyone has access to app-enabled mobility options.
- **Next Step:** Amend future updates to the Comprehensive Plan to first consider capacity improvement strategies including alternate corridors, increased transit options, Transportation Demand Management, Transportation System Management, and Congestion Management prior to conducting roadway widening projects.

#### ■ Strategy 2.2 Identify strategies to make access to transit services easier and more efficient, with emphasis on vulnerable populations.

- **Next Step:** Conduct a feasibility study for new transportation financing mechanisms such as mobility fees to fund local transportation capital needs and fare-free transit services.
- **Next Step:** Invest in first and last mile transit improvements in environmental justice areas, including addition of multimodal infrastructure and end-of-trip facilities such as bicycle racks.
- **Next Step:** Adopt percentage increase goals for the number of trips served by walking and biking in the City.
- **Next Step:** Concentrate redevelopment and targeted infill strategies in neighborhoods and corridors where micromobility and microtransit options may be incorporated through public/private partnerships.

#### ■ Strategy 2.3 Build a robust network of intelligent transportation systems to manage capacity and monitor traffic flow dynamically.

- **Next Step:** Develop public engagement, reporting, and evaluation plans to ensure residents and local stakeholders have opportunities to shape the future of AVs technology and shared mobility in Port St. Lucie.
- **Next Step:** Capitalize upon the FDOT TSM&O Master Plan and the St. Lucie ATMS Master Plan to introduce technology solutions to priority corridors including upgrades to traffic signal communication systems and other congestion management strategies to manage traffic flow dynamically.
- **Next Step:** Build partnerships across local agencies and departments to expand fiber optic connectivity in off-system roads.

## Goal 3: Regional Connectivity

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### Promote policies and investment decisions that strengthen regional connectivity.

- **Strategy 3.1** Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
  - ↳ **Next Step:** Retrofit corridors that serve as connectors between local and regional mobility hubs, such as Port St Lucie Boulevard from Jobs Express Terminal to US-1, to provide pedestrian and bicycle safety improvements and ADA accessibility.
  - ↳ **Next Step:** Develop shared mobility hubs to connect people to multiple transportation options for regional and local travel.
  - ↳ **Next Step:** Continue city participation on regional transportation boards and planning efforts, and to form coalitions to pursue state and federal funding opportunities.
- **Strategy 3.2** Provide and maintain a regional network of bicycling routes, which supports both utilitarian and recreational travel.
  - ↳ **Next Step:** Support development of C-23 Canal Trail to provide inter-county connectivity.
  - ↳ **Next Step:** Participate in the East Coast Greenway Alliance to promote the City's section of this national facility.







# Appendix A

## Multimodal Project Recommendations





Facility Name	From	To	Description
<b>Multi-Use Pathways</b>			
Hayworth Avenue	Edgarce Street	Buckhart Street	12-ft paved multi-use pathway
Aledo Lane	Brigantina Place	Rosser Boulevard	12-ft paved multi-use pathway
Port St. Lucie Boulevard	C-24 Canal Trail	Becker Road	12-ft paved multi-use pathway
Airoso Boulevard	Floresta Drive	St. James Drive	12-ft paved multi-use pathway
Tiffany Avenue	Woodstork Trail	Grand Drive	12-ft paved multi-use pathway
Grand Drive	Tiffany Avenue	Walton Road	12-ft paved multi-use pathway
NW Cashmera Boulevard	NW Peacock Boulevard	NW East Torino Parkway	12-ft paved multi-use pathway
NW California Boulevard	NW Peacock Boulevard	W Torino Parkway	12-ft paved multi-use pathway
SE Lennard Road	US-1	Cane Slough Road/Mariposa Avenue	12-ft paved multi-use pathway
Bayshore Boulevard	Prima Vista Boulevard	Floresta Drive	12-ft paved multi-use pathway
SW California Boulevard	Savona Boulevard	St. Lucie West Boulevard	12-ft paved multi-use pathway
Dreyfuss Boulevard	FPL Easement	Rosser Boulevard	12-ft paved multi-use pathway
Village Green Drive	US-1	Walton Road	12-ft paved multi-use pathway
Southbend Boulevard	SE East Snow Road	Oakridge Drive	12-ft paved multi-use pathway
Floresta Drive	Prima Vista Boulevard	Airoso Boulevard	12-ft paved multi-use pathway
Paar Drive	Rosser Boulevard	Tulip Boulevard	12-ft paved multi-use pathway
Rosser Boulevard	Aledo Lane	Paar Drive	12-ft paved multi-use pathway
Tulip Boulevard	Paar Drive	Port St. Lucie Boulevard	12-ft paved multi-use pathway
FPL Easement	Dreyfuss Boulevard	C-24 Canal Trail	12-ft paved multi-use pathway
Walton Road	US-1	Green River Parkway	12-ft paved multi-use pathway
California Boulevard	Crosstown Parkway	Savona Boulevard	12-ft paved multi-use pathway
West Torino Parkway/N Torino Parkway	NW East Torino Parkway	NW East Torino Parkway	12-ft paved multi-use pathway
Southbend Boulevard	SE East Snow Road	Cane Slough Road/Mariposa Avenue	12-ft paved multi-use pathway
Darwin Boulevard	Becker Road	SW Landale Boulevard	12-ft paved multi-use pathway
Commerce Center Drive	St. Lucie West Boulevard	Glades Cut-Off Road	12-ft paved multi-use pathway
Tradition Parkway	Range Line Road	SW Community Boulevard	12-ft paved multi-use pathway
Selvitz Road	Floresta Drive	Midway Road	12-ft paved multi-use pathway
NW East Torino Parkway	W Torino Parkway	Midway Road	12-ft paved multi-use pathway
Savona Boulevard	Becker Road	C-24 Canal Trail	12-ft paved multi-use pathway
Range Line Road	Martin/St. Lucie County Line	Glades Cut-Off Road	12-ft paved multi-use pathway
Glades Cut-Off Road	Burnside Drive	Midway Road	12-ft paved multi-use pathway
Midway Road	Okeechobee Road	Selvitz Road	12-ft paved multi-use pathway
Gatlin Boulevard	Community Boulevard	Savona Boulevard	Widening of existing sidewalk along both sides of Gatlin Boulevard/Tradition Boulevard related to Jobs Express Terminal connectivity
C-23 Canal			Multi-use pathway along C-23 canal
C-24 Canal			Multi-use pathway along C-24 canal
Western Annexation Area	Various Locations		Multi-use pathway network along arterials connecting new neighborhoods
Northwestern Annexation Area	Various Locations		Multi-use pathway network along arterials connecting new neighborhoods



Facility Name	From	To	Description
<b>Bicycle Facilities</b>			
Port St. Lucie Boulevard	Darwin Boulevard	US-1	Bicycle facilities
Floresta Drive	Oakridge Drive	Prima Vista Boulevard	Bicycle facilities
U.S. 1	County Line	Riomar Drive	Bicycle facilities
Bikeshare Program	Torino, Tradition, City Center		Bikeshare Program
<b>Pedestrian Improvements</b>			
SE Calmoso Drive	SE Sandia Drive	Floresta Drive	Sidewalks
SW Dalton Avenue	Savona Boulevard	Port St. Lucie Boulevard	Sidewalks
<b>Microtransit Programs</b>			
Torino Parkway			Microtransit Pilot Program
Tradition Area			Microtransit Pilot Program
<b>Transit Improvements</b>			
Ft Pierce/Port St Lucie			New Transit Service
Virginia Avenue	US-1	Kings Highway	New Transit Service
Midway Road			New Transit Service
Port St Luci Boulevard	Gatlin Boulevard	Paar Drive	New Transit Service
Crosstown Parkway			New Transit Service
Tradition Area Shuttle			New Transit Service
Palm Beach Express			New Transit Service
Passenger Train Orlando - Miami			New Transit Service
Hutchinson Island			New Transit Service
Selvitz/Bayshore			New Transit Service
Port St. Lucie Boulevard	South of Gatlin Boulevard		New bus route to serve Port St. Lucie Boulevard south of Gatlin Boulevard
Crosstown Parkway			New bus route on Crosstown Parkway in coordination with completion of Crosstown Parkway extension to US-1
<b>Jobs Express Terminal</b>			
Jobs Express Terminal	East of the interchange of I-95 and Gatlin Boulevard		Park-and-ride lot with a 162-vehicle capacity. Six bus shelters for drop-off or pick-up. Pedestrian level lighting. Landscaping. Electric vehicle charging stations. Special Emphasis crosswalks and other intersection improvements.
<b>Transportation System Management and Operations (TSM&amp;O)</b>			
Citywide	Various Locations		Fiber Optic Connectivity



Facility Name	From	To	Description
<b>Roadway Improvements</b>			
Florida's Turnpike	Midway Road		New Interchange
Florida's Turnpike	Crosstown Parkway		New Interchange
Williams Road	Shinn Road	McCarty Road	New 2 Lanes
Arterial A	Glades Cut-Off Road	Midway Road	New 4 Lanes
Becker Road	Range Line Road	Village Parkway	New 4 Lanes
Community Boulevard	Becker Road	Discovery Way	New 4 Lanes
Crosstown Parkway	Range Line Road	Village Parkway	New 4 Lanes
Discovery Way	Range Line Road	Community Boulevard	New 4 Lanes
E-W Road 2	N-S Road A	Village Parkway	New 4 Lanes
E-W Road 6	Shinn Road	McCarty Road	New 4 Lanes
E-W Road 6	McCarty Road	Glades Cut-Off Road	New 4 Lanes
N-S Road A	Becker Road	Crosstown Parkway	New 4 Lanes
N-S Road B	Becker Road	Discovery Way	New 4 Lanes
Newell Road	Shinn Road	Arterial A	New 4 Lanes
Open View Drive (West)	Range Line Road	Village Parkway	New 4 Lanes
Paar Drive (West)	Range Line Road	Village Parkway	New 4 Lanes
Range Line Road	E-W Road 6	Midway Road	New 4 Lanes
Range Line Road	Glades Cut-Off Road	E-W Road 6	New 4 Lanes
Shinn Road	E-W Road 6	Midway Road	New 4 Lanes
Shinn Road	Glades Cut-Off Road	E-W Road 6	New 4 Lanes
Stony Creek Way	Range Line Road	Tradition Parkway	New 4 Lanes
Tradition Parkway	Range Line Road	SW Stony Creek Way	New 4 Lanes
Williams Extension	McCarty Road	Arterial A	New 4 Lanes
Williams Extension	Arterial A	Glades Cut-Off Road	New 4 Lanes



Port St. Lucie

# Multimodal Plan