PENSACOLA *in motion*

ACTIVE TRANSPORTATION PLAN (ATP)

AUGUST 2023

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PENSACOLA
FLORIDA'S FIRST & FUTURE

Executive Summary

The Pensacola in Motion Active Transportation Plan (ATP) is an important next step in realizing the vision for future mobility in the City. The ATP mobility vision is ambitious - to offer everyone safe mobility choices and access to opportunities.

The guiding principles of the ATP that will guide future mobility work include:

Put Safety First: Identify solutions that make moving around safer and more comfortable and push for zero fatalities.

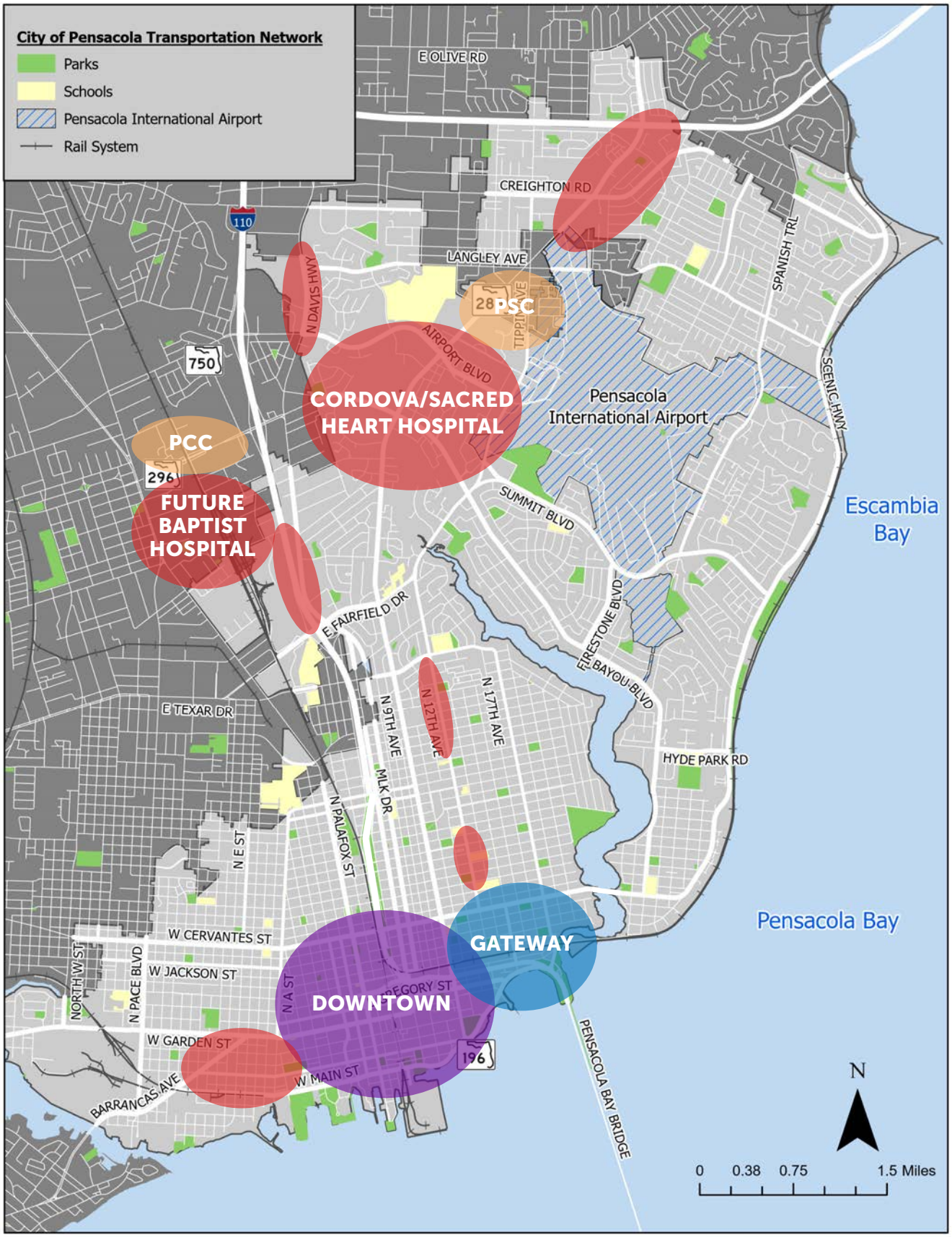
Connect People and Places: Improve access and promote placemaking through meaningful projects that fill gaps in the network.

Access for All: Consider everyone's needs when developing solutions.

Add Mobility Options: Focus on opportunities that are feasible, provide quality aesthetics, and build on past efforts.

These principles will shape the future of how people move in and around Pensacola. The guiding principles can only be achieved in complete partnership with all members of the community. Pensacola In Motion, is a blueprint to help provide choices for people moving around the City.

Figure 1. Context Map



"The freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights."

-David Harvey

SECTION 1
SETTING THE STAGE

An Introduction to the Active Transportation Plan

Purpose

Pensacola is a community in motion with amazing places and meaningful destinations that all citizens deserve access to. The Pensacola Active Transportation Plan (ATP), known as Pensacola In Motion, is a blueprint to help provide choices for people moving around the City. Pensacola has a rich and vibrant history. The City's transportation network has evolved over time which includes the creation of a street grid, a deep water port, streetcar lines, passenger and freight rail, larger roads for moving automobiles quickly, and improved streets for walkability. The ATP is just one layer of creating a safer transportation system. As Pensacola continues to grow and the demand for choices increases, there is an opportunity to create a network of safe streets for people walking, bicycling, and using other self-propelled modes of transportation in addition to driving and taking transit. Like a house with good bones, Pensacola's transportation network has a strong foundation that will continue to transform over time.

What is the ATP?

The plan is an overarching framework that provides guidance on design, policies, and critical infrastructure investments. An emphasis is placed on connections within and to major destinations such as schools, parks, the waterfront, community facilities, commercial areas, and transit stops. The ATP provides policy and street design guidance for governmental agencies, consultants, private developers, and the community that impacts our streets. The ATP recognizes different parts of the City have unique needs and not all streets are the same. Following a context sensitive approach, it's important to put the right street in the right place, based on the expected user type.

Momentum for a Connected Tomorrow

The City is passionate about creating safe, comfortable, and accessible options for moving around Pensacola. Community groups and organizations like Bike Pensacola, West Florida Wheelmen, the Bluffline Group, Center for Independent Living Disability Resource Center, Visit Pensacola, Ciclovia, and CivicCon champion this shared vision for the future. Now is the time to build on this momentum as well as past planning efforts to create a blueprint for making moving around Pensacola safer, more comfortable, and more accessible for those here today and for future generations.

We are at a moment when more federal funding is available to implement projects that reinvest in our communities, result in access for all, and improve our community's safety, livability, and resilience. By laying the groundwork now, Pensacola will be ready to take advantage of partnerships and funding opportunities that create meaningful change to the transportation network.

The ATP is a Call to Action

Pensacola In Motion unifies and builds onto past plans. The ATP provides strategies and actions and is meant to be flexible and re-calibrated over time by the various city departments, agencies involved, and steering committee. The ATP provides specific strategies and recommendations for governmental agencies that own our streets (City departments, Escambia County, and the Florida Department of Transportation) including others that may impact changes to our streets such as developers, other agencies, or the community. The call is to create a connected network of safe streets for people of all ages and abilities. In addition, the desire is for a transportation system that connects transit and creates a network that strengthens local connections and links to regional transportation. Safety and achieving Vision Zero, the idea that even one fatality is too many, is a priority.

Community engagement is the foundation of this plan. The ATP included listening early and often to identify what was most important to the community so that the recommendations reflect the community's vision.

Pensacola has a history and a good groundwork of plans that highlight improved walkability, and quality of life. The ATP is a framework for future plans that builds upon past planning efforts with a focus on implementation and actions. The intent is that the ATP could be updated overtime with changing conditions. Some of these past planning efforts include:

- Baywalk Project
- Davis Highway and Dr. MLK Jr Drive/Alcaniz Street Two-Way Conversion Traffic Feasibility Study
- FL-AL TPO Pedestrian Bicycle Master Plan
- Hollice T Williams Framework Plan
- Main Street Corridor Management Plan
- Pensacola Historic District Master Plan
- Reimagine Jackson Street Transportation Master Plan
- SCAPE Waterfront Master Plan

Why Now?

- Pensacola Continues to Change
  - » Pensacola's rich history, beautiful beaches, and strong economy helped it **make the top 100 list of America's Best Cities**. A unique economy and a growing population in downtown and other parts of the City creates increased demand on the transportation system from all travel modes.
- People Want Options
  - » Online survey results showed that while most people in the city travel with a car, many prefer more options to walk, bike, or take transit for certain trip purposes if a safe and convenient option is available.
- Reclaiming the Public Space
  - » Typically, **25-35% of the land in cities is dedicated to roads.** There is a huge opportunity to continue to celebrate Pensacola's original identity by reinventing the existing space downtown. There is also an opportunity to create trails and paths that connect different areas of the City so residents and visitors can safely and comfortably access and enjoy its natural beauty, history, and businesses.
- Accessibility for All is Important
  - » **8% percent of households in the City do not own a vehicle and 28% of individuals in the City have some type of disability.** As the City implements improvements, it must remove barriers created by the past and encourage access to jobs, food, education, healthcare, and other resources for those who may rely on walking, biking, or public transit.

What's in the ATP?

The plan is organized into four logical sections that the community can follow to drive implementation that connects back to the vision.

Section 1 Setting the Stage:
Conveys the community's vision and guiding principles that shape the strategies and actions for achieving a safer, more comfortable, and more accessible transportation network.

Section 2 Where Are We Now?:
Describes the current state of mobility in Pensacola. The community voices section summarizes the community experience today as it relates to transportation challenges and opportunities. Learning about what changes are needed is important to know where we are going. The section includes data on safety, demographics, and existing pedestrian, bicycle, and transit facilities and identifies three key themes: speeding, lack of connectivity, and intersections.

Section 3 Where Are We Going?:
Discusses strategies for improving the active transportation network through flexible design guidance when anyone desires to change a street. This includes a prioritized network of existing and future facilities and the tools for designing future improvements.

Section 4 How Are We Getting There?:
Describes actions for implementation. Actions include policy and program changes, details on how to deliver projects, identification of top-priority projects, funding recommendations, and methods for measuring success.

Vision and Guiding Principles

The vision provides the ideal future of what the City wants to be. It provides support for the recommended strategies and toolkit that will help us realize the vision.

The ATP will be a framework to help maintain the unique historic character of Pensacola while transforming the transportation network to be accessible, connected, comfortable, and safe for people walking, cycling, and using other self-propelled modes of transportation.

Guiding Principles

Put Safety First: Identify solutions that make moving around safer and more comfortable and push for zero fatalities.

Connect People and Places: Improve access and promote placemaking through meaningful projects that fill gaps in the network.

Access for All: Consider everyone's needs when developing solutions.

Add Mobility Options: Focus on opportunities that are feasible, provide quality aesthetics, and build on past efforts.

Safety is Paramount

In the last five years, **28 people died (including 10 that were walking or bicycling)** and **115 were seriously injured (including 36 that were walking or bicycling)** on Pensacola streets. This equates to about **six** (**6) deaths and 23 serious injuries on our streets every year.** With more people using our streets to get to work or to the bus stop, to visit shops and restaurants, walk or bicycle to school, explore the City for recreation, and visit our parks, it is important these experiences are safe and comfortable for all. In addition to guidance that improves sidewalks, bicycle facilities, trails, and crossings, the ATP includes traffic calming measures that encourage slower vehicle travel speeds. Coordinated design elements combined with education efforts will help create safe places to bicycle and walk.

Vision Zero

The City endorses a safety vision to eliminate all transportation-related fatalities and serious injuries for all modes of travel. This vision has been endorsed by the US Department of Transportation and Florida Department of Transportation. The initiative to address this problem is known as the Safe Systems Approach. It is a systematic approach for identifying locations and behaviors related to fatal and serious injury crashes to implement multi-disciplinary countermeasures.

Benefits of an Robust Transportation Network

In addition to physically improving the transportation network, providing options to move around the City on foot or by wheel offers many economic, social, and environmental benefits.

Health

- Walkable and bikeable communities contribute positively to health and active living by allowing people to incorporate physical activity into their daily routines easily.
- Moderate daily exercise can improve overall health outcomes, reduce the risk of chronic health issues, and improve physical and mental health.

Safety

- Designs that promote slower travel speeds and positively influence travel behavior create a safe environment for all users.
- Correctly implemented bicycle/pedestrian facilities and intersection crossings can help reduce the number and severity of crashes.
- Enhances safety for vulnerable populations that may rely more on walking, biking, and public transit.

Access for All

- A more accessible network considers all users, regardless of age, ability, ethnicity, income, or choice of travel.
- Walking, biking, and transit are more affordable forms of transportation.

Economy

- Connected communities stimulate economic growth by promoting business development and investments, attracting and retaining workers, and appealing to tourists and visitors.
- Commercial properties and retail establishments in pedestrian-friendly areas have proven more profitable.
- Walkable and bikeable neighborhoods have higher property values.

Environment

- Replacing vehicle trips with opportunities for biking, walking, and rolling reduces pollution from greenhouse gas emissions and fossil fuel consumption, which can result in improved air quality.
- Allows for designs incorporating green infrastructure to improve the City's stormwater management and retention and reduce the urban heat island effect from excess pavement.

Social

- Brings neighborhoods together.
- It allows for improved placemaking and enhances the look and feel of the community by incorporating public art, landscaping, furniture, and lighting.


“Streets are where life and history happen, and that places transportation at the cultural, social, and political center of cities.”
-Janette Sadik-Khan

SECTION 2
WHERE ARE WE NOW?

Current Mobility in the City

It is beneficial to take a step back and understand the transportation history that shaped the development of Pensacola's built environment today. Existing conditions of the transportation network create a benchmark to develop the strategies advocated for by the community. Through comprehensive public engagement the community responded to the current state of mobility with several reoccurring themes rising to the top.

A City That Continues to Evolve

Beginnings (1500s to 1880s): A Street Network is formed

Pensacola has a rich history and is often referred to as "America's First Settlement." Pensacola was home to Native Americans for thousands of years before European explorers and colonists developed the grid network. Spanish, British, French, and American cultures have influenced the City dating back to the mid-16th century. Pensacola's streets were first developed in a grid pattern during the colonial age by the Spanish and British. This network begins in downtown and extends toward Bayou Texar and Bayou Chico. A grid network design allowed people to easily move around the City before cars became the primary form of transportation.

The City has an extensive military heritage, and the Naval base is known as the "the Cradle of Naval Aviation." In the 19th century, the strategic deep water port and the introduction of rail-including freight and passengers-brought other opportunities. Throughout the City's history, the Port of Pensacola has been an important economic hub for shipping cargo, lumber, and bricks, as well as the military, with manufacturing having influenced the design of City streets.

Pre-1930s

Walking and horse-powered travel were the early modes of transportation. Rail for passengers and freight was introduced in the 1800's and took off in the 1880's when the Pensacola and Atlantic Railroad (P&A) was absorbed into the Louisville and Nashville Railroad (L&N). From the late 1880s to the early 1900s, streetcars dominated the landscape, allowing development to expand outward. This enabled people to travel into and around the City's core as well as other destinations to which they might walk. At its peak in 1920, there were four million streetcar passengers a year. During this time, African Americans boycotted the network due to a proposed segregation ordinance. Besides downtown, Kupfrian Park was a popular weekend destination with a streetcar connection. Automobiles were introduced in the early 1900s and gained more use during the 1920s and 1930s.

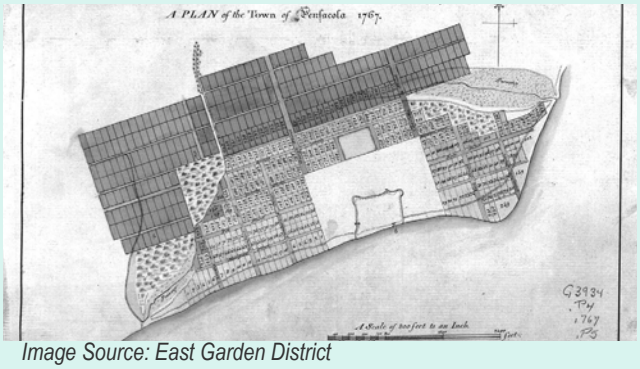


Image Source: East Garden District

Image Source: Florida Memory

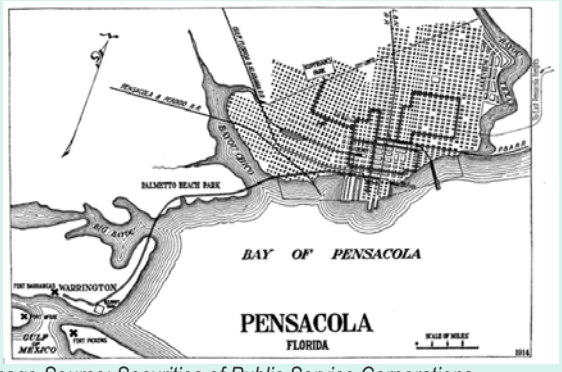


Image Source: Securities of Public Service Corporations

Image Source: UWF Archives/Special to the Pulse

Post-1930s

With the Great Depression and the rise of America's car culture, streetcars were replaced with a greater prevalence of cars and buses. With the bridges being built to accommodate the beach travel patterns, recreation changed. Following World War II, rapid suburbanization in northeast Pensacola and beyond City limits resulted in a different street pattern, with wide, winding roads, fewer intersections and a hollowing of downtown. Street design focused on moving cars efficiently, while other modes became an afterthought. In addition, major roads built during this period like I-110 provided regional connections and moved cars quickly through Pensacola but did not consider the surrounding neighborhoods and people walking and biking, creating barriers to moving about the City. With the shift of people and business into the suburbs, older buildings were removed for surface parking to encourage people to come back downtown. After intermittent years of service in the 20th century, passenger rail service ends in 2005.

Image Source: UWF Trust

Image Source: UWF Historic Trust

Today

Today, there is a desire for transportation choices. Many are interested in walking or bicycling not only for health but for errands such as going to the grocery store or post office or getting to school safely. Downtown Pensacola has seen a significant revitalization along with City and business efforts. Development has occurred not only downtown, but in adjacent areas with new housing, which brings tax revenue but other challenges such as increased housing prices and potential displacement of current residents. The ATP is Pensacola's vision and foundation to honor the City's rich history, reimagine the transportation network, and reinvent roads that allow people to move around the City without a car.

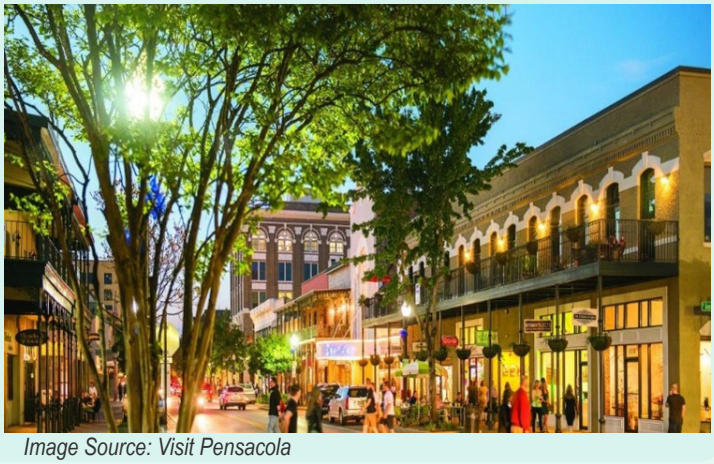


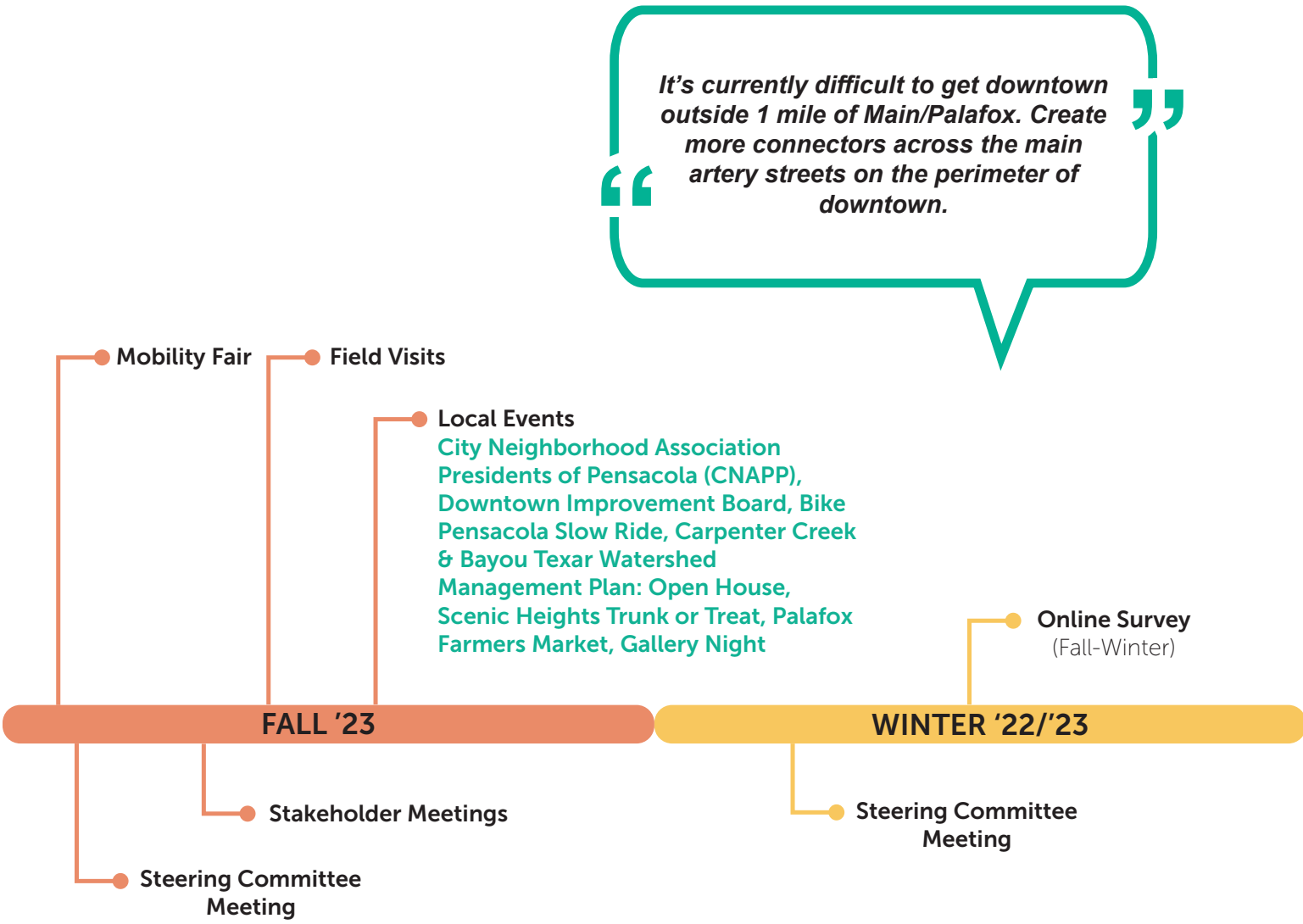
Image Source: Visit Pensacola

Voices of the Community: Current Experience and Vision

Meaningful community engagement was captured by listening and learning about different community members' needs and desires. Community members discussed how the transportation network could be improved and what was most important to them through in-person and virtual meetings as well as an online survey.

In the fall of 2022, community members were asked what transportation challenges, assets, and opportunities exist and where changes are needed. Touch points with the community included open house style mobility fairs, tabling at local events, and stakeholder interviews. In addition, everyone was invited via social media, email, and word of mouth to take an online survey.

The steering committee provided input through the planning process to develop the plan's vision and guiding principles and provide guidance on the network map, design guidance, and actions for implementation. To ensure the ATP reflects what we have heard, we hosted a second mobility fair to receive community input on the draft plan.



ATP Steering Committee

The steering committee represents a diverse group of community organizations and agencies that collaborated to help drive major components of the ATP. The members involved in the steering committee are:

- Bike Pensacola
- Ciclovia
- CIL of Northwest Florida
- City of Pensacola
- Escambia County
- Escambia County Public Schools
- Escambia County Area Transit (ECAT)
- Florida Department of Transportation (FDOT)
- Pensacola Chamber of Commerce
- Pensacola Police Department
- Visit Pensacola
- West Florida Wheelmen

Overall Key Themes

- Access to the waterfront
- Connect the City
- Create multi-use trails and bike infrastructure

Other Top Priorities We Heard

- Improve bicycle facilities
- Need slower speeds on some streets
- Reduce lane widths
- Add more sidewalks
- Improve crossings/intersections
- Add more shade trees and lighting
- Better maintenance

> ***I would love to see a sidewalk going the entire length of Bayou Blvd. To access things in our neighborhood, you must walk on the road or in very uneven yards. This was a huge safety concern when my daughter had to catch a bus behind our house on Bayou.***

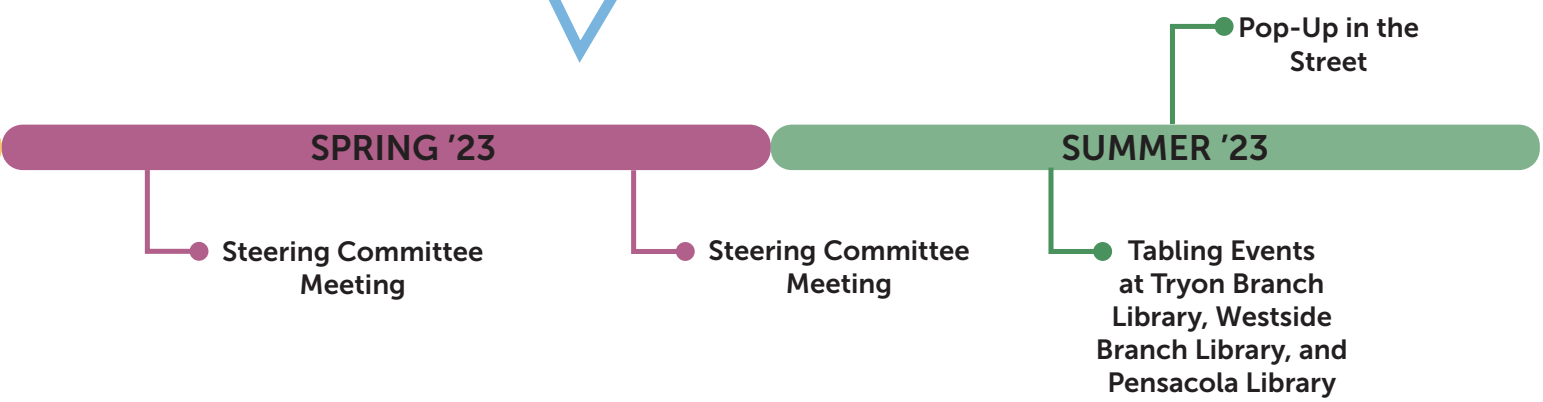
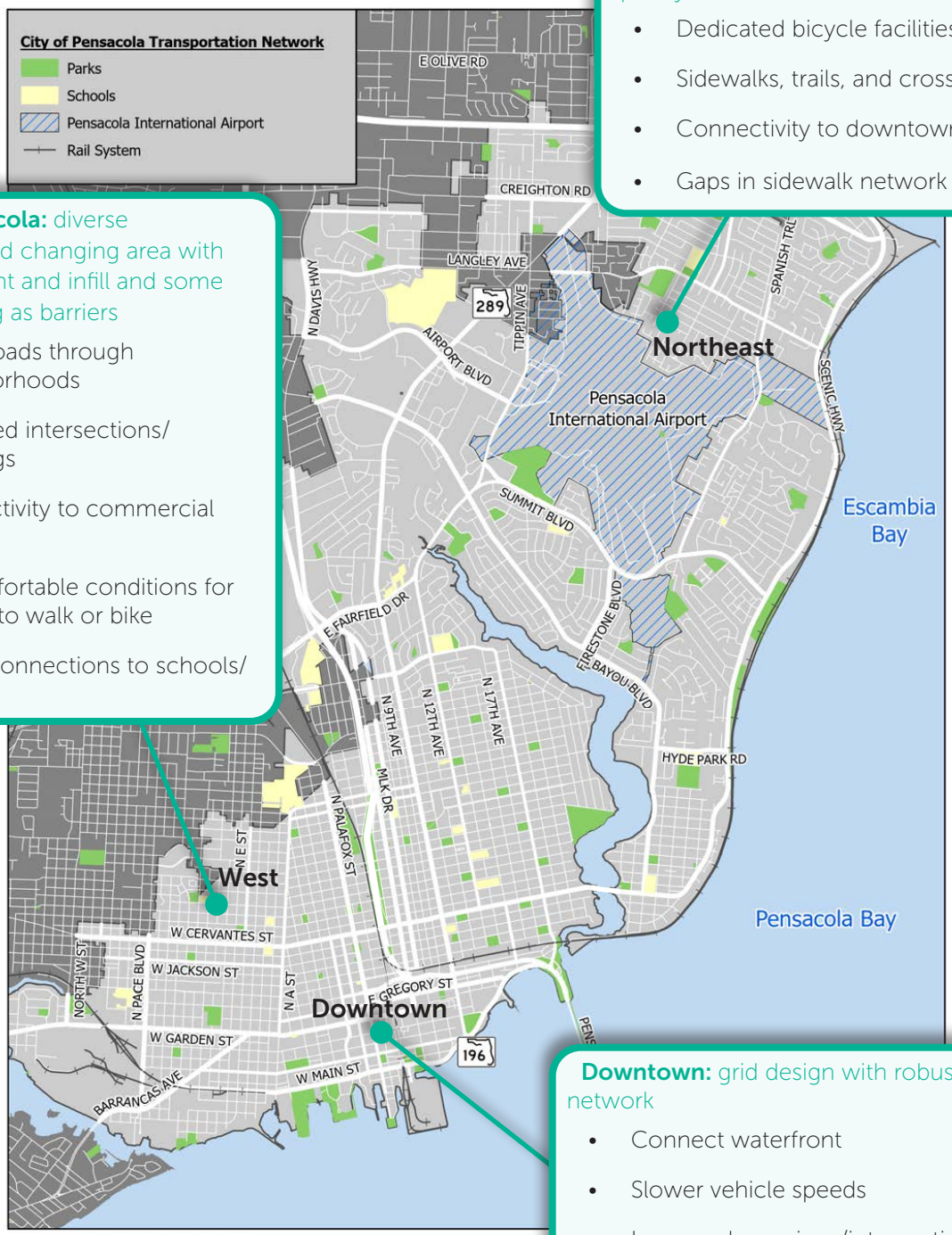


Figure 2. Community Discussions



Northeast Pensacola: winding, disconnected roads focused on moving cars quickly

- Dedicated bicycle facilities
- Sidewalks, trails, and crossings
- Connectivity to downtown
- Gaps in sidewalk network

West Pensacola: diverse population and changing area with redevelopment and infill and some streets serving as barriers

- Major roads through neighborhoods
- Improved intersections/ crossings
- Connectivity to commercial centers
- Uncomfortable conditions for people to walk or bike
- Better connections to schools/ parks

Downtown: grid design with robust sidewalk network

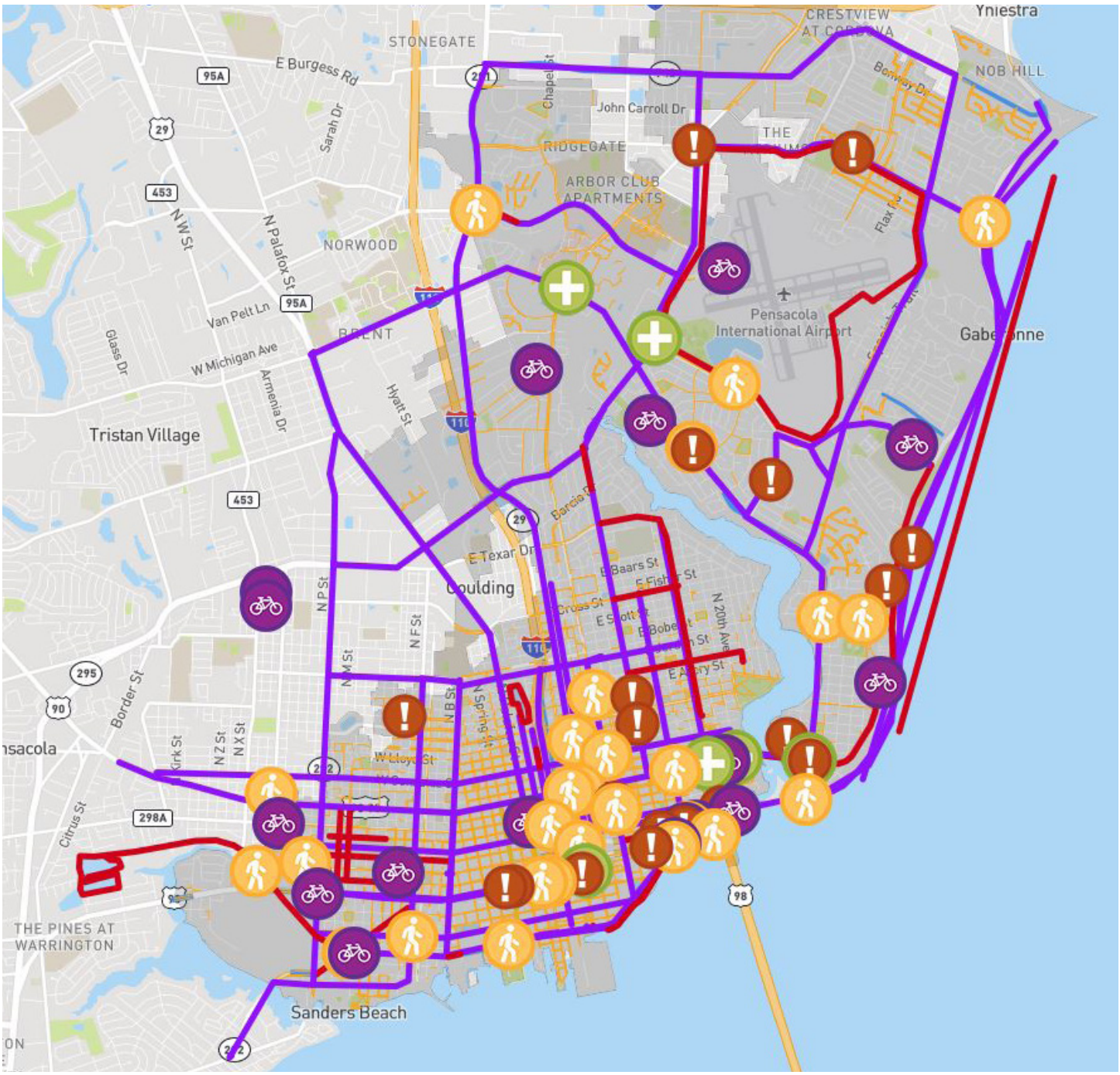
- Connect waterfront
- Slower vehicle speeds
- Improved crossings/intersections
- Neighborhood greenways/shared streets
- Need to change driver behavior
- Better maintenance of existing facilities would benefit all users

> *Need bike lanes on the less busy street going from East Hill to downtown and to the new skate park - safe for kids.*

> *Many people need to get from the mall to the university area, and cycling is the fastest way during rush hour. The City could benefit greatly from extending the wide, safer bike lane from downtown to University on Davis and doing the same in the opposite direction. Improving Creighton would also make cycling safer and more efficient.*

Figure 3. Online Community Map Survey

To capture community opinions and ideas, an online map survey, called PublicCoordinate, was utilized through the duration of the project. Community members were able to draw desired bike routes and sidewalk connections within the City. In addition, community members identified areas with safety concerns and locations for bicycle, pedestrian and intersection improvements.



Legend

Existing Facilities
- Bike Lane
- Sharrows
- Sidewalks

Community Line Comments
- Bike Route Improvements
- Pedestrian Route/Sidewalk Improvements

Community Point Comments
- Bicycle
- Intersection
- Pedestrian
- Safety

In the summer of 2023, the City conducted multiple events to present the draft ATP and recommendations to the community. This included tabling events at community libraries and a pop-up in the street event on East La Rua Street between North Tarragona Street and Hayne Street. The pop-up event including booths from local organizations, a demonstration of multimodal improvements, and opportunities to comment on the draft plan. These events kicked off the final stage of the community engagement for the ATP.

> ***I support more sidewalks, bike lanes, greenways, and neighborhood skate spots. I'd love to see the City more accessible to everyone.***

Current Active Transportation Network

Pensacola has a generally well-connected sidewalk network in its downtown area but has a larger amount of sidewalk gaps in neighborhoods directly north and west of downtown Pensacola. Additionally, there is a much less robust sidewalk network to destinations in the eastern and northern portions of the City. The City has performed an ADA sidewalk compliance survey and is currently upgrading sidewalks and curb ramps to comply with ADA standards. Bicycle infrastructure is much less prevalent with few dedicated bike lanes throughout the City.

The City of Pensacola contains the following facilities (includes both sides of the street combined):

- Approximately 35 miles of on-street bike facilities
- Approximately 260 miles of sidewalks

Additionally, Escambia Area County Transit (ECAT) bus stops are located throughout the City, particularly in west Pensacola, downtown, and in the north along corridors such as North 9th Avenue, North 12th Avenue, Airport Boulevard, Langley Avenue, and Creighton Road. Interest has continued to bring back passenger rail to Pensacola which could bring back a connection from New Orleans to Jacksonville.

A regional perspective was considered to account for connections across Escambia County, and with neighboring Santa Rosa County. The Pensacola Bay Bridge provides a direct connection to Santa Rosa County. A direct bicycle trail along the bridge provides access between the two counties. Additionally, Scenic Highway-which runs along the City's eastern coast-connects Pensacola to Santa Rosa County via northeast connections. Future enhancements to the bicycle and pedestrian network along these roadways would enhance regional connectivity overall.

Figure 4 shows a map of existing pedestrian and bicycle infrastructure in the City of Pensacola along with ECAT bus stops.

ADA-Compliant Sidewalks

Problem: Sidewalk with a greater slope of 2% requires people who use wheelchairs to use more energy.

Good Design: Sidewalk is wide and elevation is flat.

Figure 4. Existing Bicycle and Pedestrian Network Map

Types of Streets in Our City

The City's street network provides numerous opportunities for bicycle, pedestrian, and safety improvements. Approximately 82% of miles of roadway within Pensacola are considered City-owned; however, many of the larger, more heavily traveled streets are maintained by the State (Florida Department of Transportation - FDOT) or Escambia County. A number of streets with safety concerns such Cervantes Street, Garden Street, Palafox Street, Scenic Highway, and 9th Avenue, are maintained by these entities. Improvements on State and County-maintained roadways in the City would require coordination with FDOT and Escambia County. A map showing roadway jurisdictions in the City is shown in **Figure 5**.

The City of Pensacola contains:

- **420 Total Miles** of Roadways
- 53 miles of State Roadways (13% State Roadways)
- 3 Miles of County Roadways (1% County Roadways)
- **330 Miles of City-Maintained Roadways (82% City Roadways)**
- 34 Miles of Private Streets (4% Privately Maintianed Roadways)

Arterials- "the arteries of the City"-were developed in the second half of the 20th century to move cars to and through the City quickly for more regional and intercity trips. Collectors were meant to "collect" traffic from neighborhoods, moving them along to arterials and included more local or shorter intercity trips. Local streets are neighborhood streets which include the start and end of trips.

- Arterials and Interstates (55 Miles) – 13%
- Collectors (36 Miles) – 9%
- Local (329) – 78%

Roadway Ownership

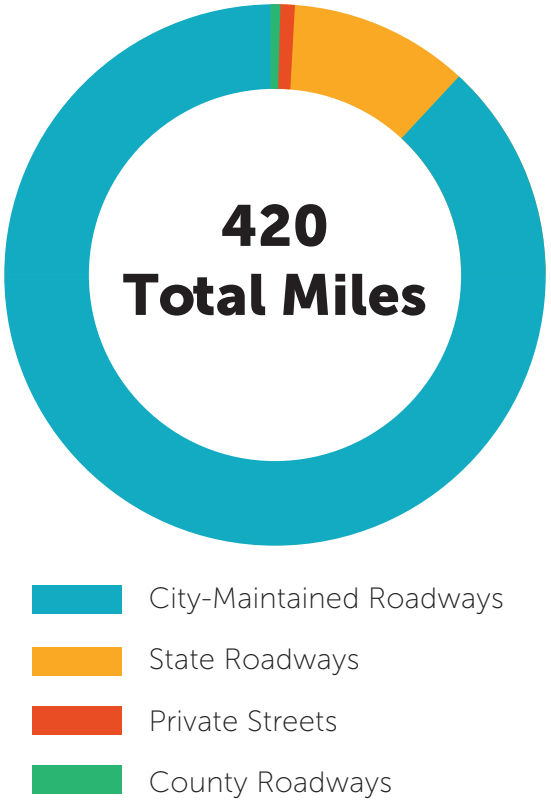
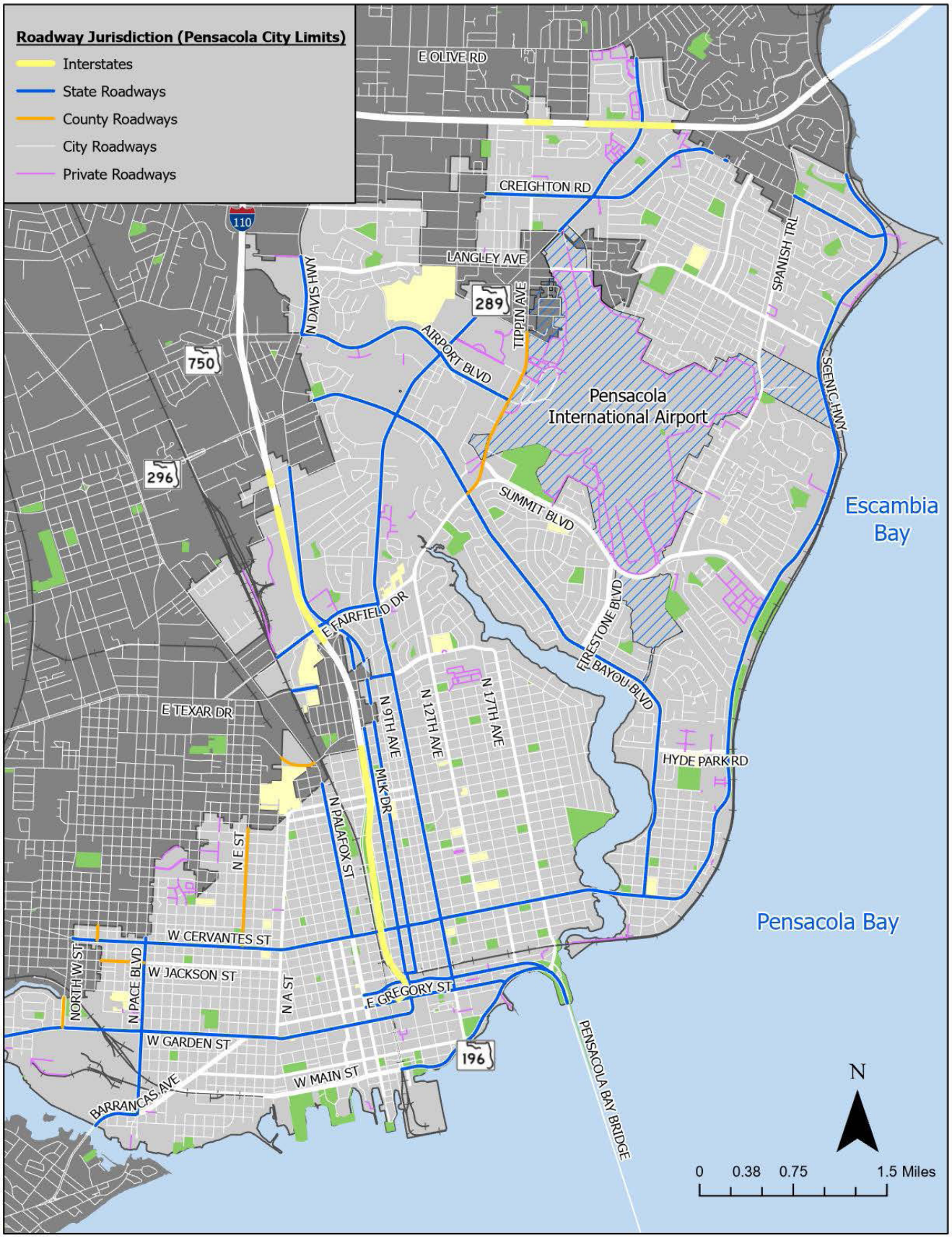


Figure 5. Roadway Jurisdiction Map



Comfortable Streets

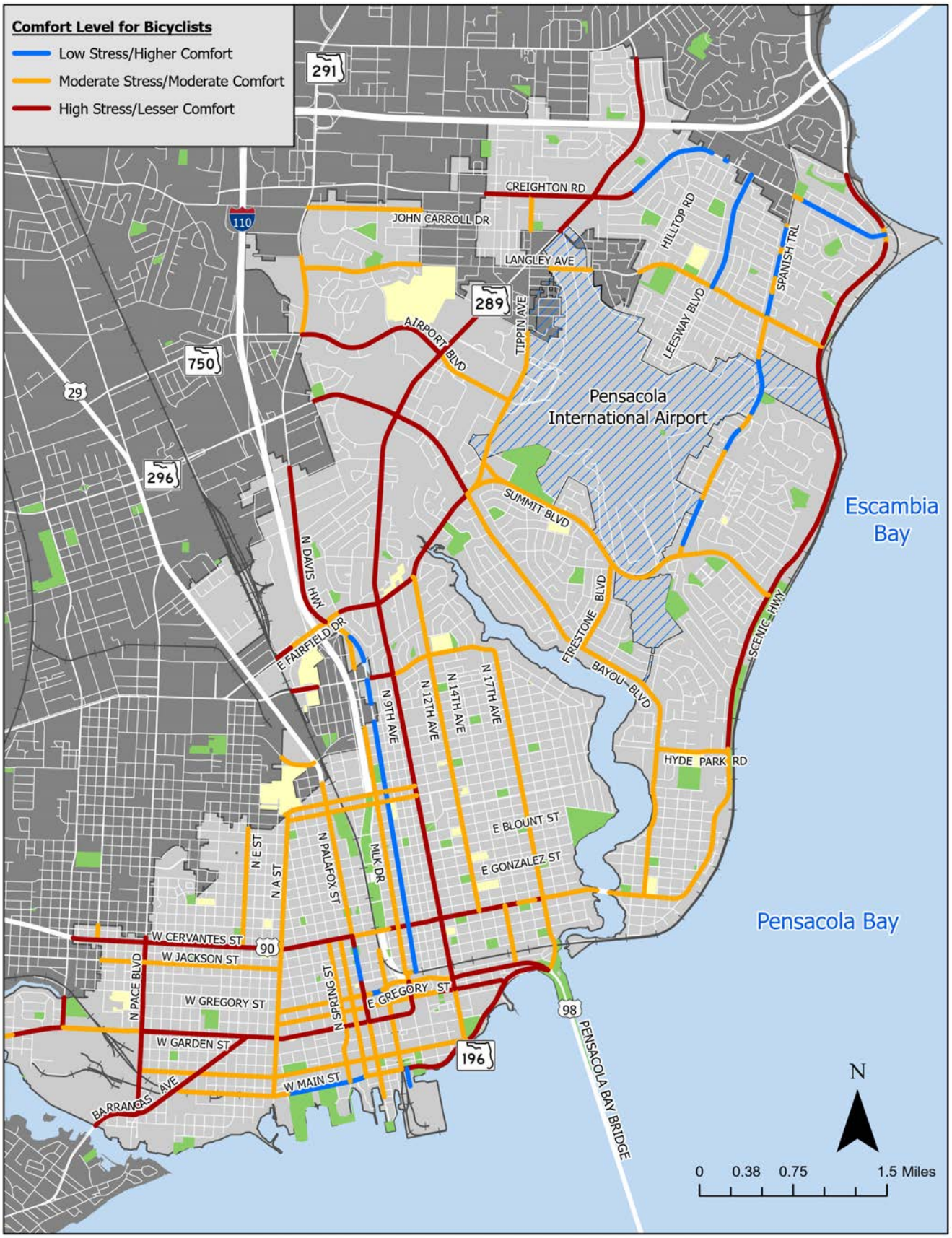
A level of traffic stress (LTS) analysis was conducted to assess the overall comfort level of roadways in the City. The analysis looked at the number of vehicles driving on a street per day, the posted speed, and whether or not bicycle infrastructure is available on only arterial and collector streets. The streets with higher volumes of vehicles and higher speeds are less safe and comfortable for bicyclists and pedestrians and have a higher "level of stress." In Pensacola, the majority of arterial roadways are high stress and a significant portion of collector street(s) are moderate stress:

- 83 miles of high stress streets with less comfort levels
- 337 miles of moderate/low stress roadways

Different people have different stress tolerances – some serious riders are comfortable riding on streets without bicycle lanes whereas the vast majority of the population will not be comfortable. The majority of riders will ride where there are protected bicycle facilities and/or off the street. If bicycle facilities are not present, the street must have a lower number of vehicles and slower speeds. The graphic below shows the different type of bicycle users and **Figure 6** shows the results of the analysis.

Comfort Typology of Bicyclists			
Design User Profile	Interested but Concerned	Somewhat Confident	Highly Confident
Bicycling Preferences	Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separated bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.	Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.	Comfortable riding with traffic; will use roads without bike lanes.
% of General Public	**51-56%**	**5-9%**	**4-7%**

Figure 6. Comfort Level for Bicyclist Map



Note: Streets not categorized on the map are local/neighborhood streets with low stress.

Safe Streets For All

Safety is a key consideration as unsafe bicycling and walking conditions create a significant barrier to encouraging non-motorized travel. By identifying high crash intersections and roadways where these conditions can be improved upon, the City can reduce existing rates of injuries and fatalities for all travelers while also encouraging more bike and pedestrian forms of travel. For this safety analysis, crash data was retrieved from FDOT's Signal 4 Analytics database for 2018 to 2022. The Crash Trends table below shows crash trends in the last five years. Crashes have been declining, demonstrating Vision Zero goals can be attainable. **Figure 7** shows a crash map for the city containing all crashes from 2018 to 2022, and **Figure 8** shows only bicycle and pedestrian crashes.

- Between 2018 and 2022 there were **12,141** total crashes. Of those crashes:
  - » **28** people died (35% were a pedestrian or a bicyclist)
  - » **115** people were severely injured (**31**% were a pedestrian or a bicyclist)
- Overall crashes have been decreasing.
- **41%** of fatal and severe injury crashes occurred in non-daylight conditions
- **20%** of fatal and severe injury crashes occurred under the influence of drugs or alcohol
- **100** crashes involved bicyclists and **171** involved pedestrians
  - » Ten (**10**) pedestrians died and **16** were seriously injured
  - » One (**1**) bicyclist died and **20** were seriously injured

10.31 annual fatalities per 100,000 persons

With this analysis, a high injury network (HIN) was developed to identify corridors and intersections where improvements can be focused in the future.

Crashes Trends (2018-2022)							
Crash Type	Year					5-Year Total	
	2018	2019	2020	2021	2022	Grand Total	%
Angle	405	420	306	356	334	1,821	13.9%
Animal	0	2	3	2	2	9	<.1%
Bicycle	22	22	17	24	15	100	0.8%
Head On	17	26	14	16	15	88	0.6%
Left Turn	319	331	232	264	223	1,369	11%
Off Road	223	204	196	196	194	1,013	7.7%
Other	799	778	439	478	390	2,884	27.5%
Pedestrian	50	40	25	27	29	171	1.7%
Rear End	723	778	439	478	390	2,988	24.9%
Right Turn	57	51	39	52	44	243	2%
Rollover	1	5	4	2	3	15	<.1%
Sideswipe	233	269	189	257	236	1,184	8%
Unknown	60	74	39	44	39	256	2.1%
Total:	2,909	2,950	2,006	2,287	1,989	12,141	100%

High Injury Network

Figure 7 shows the High Injury Network (HIN) that identifies intersections and roadways where safety improvements can be prioritized on FDOT, County, and City streets. Crash data from FDOT's Signal 4 Analytics database from 2018 to 2022 was utilized to identify locations where frequent injury, severe injury, and fatal crashes occurred for all modes of transportation. The HIN was developed based on streets with high-crash frequency with injuries as where continuous connecting routes occur with instances of injury crashes. In addition the HIN was refined to include input from the steering committee and City staff where high levels of safety issues are reported specifically from the Police Department. Additionally, locations for intersection/crossing improvements with high crash densities were identified, along with others based on City and stakeholder recommendations.

HIN roadways and intersections that are within the disadvantaged community Census Tracts (**Figure 9**), should be given further consideration when prioritizing future roadway safety improvements. Please note, that the HIN should be revisited as conditions change to better act as a tool to prioritize future safety enhancements in the City's roadway network.

Figure 7. 5-Year Crash Map (2018-2022)

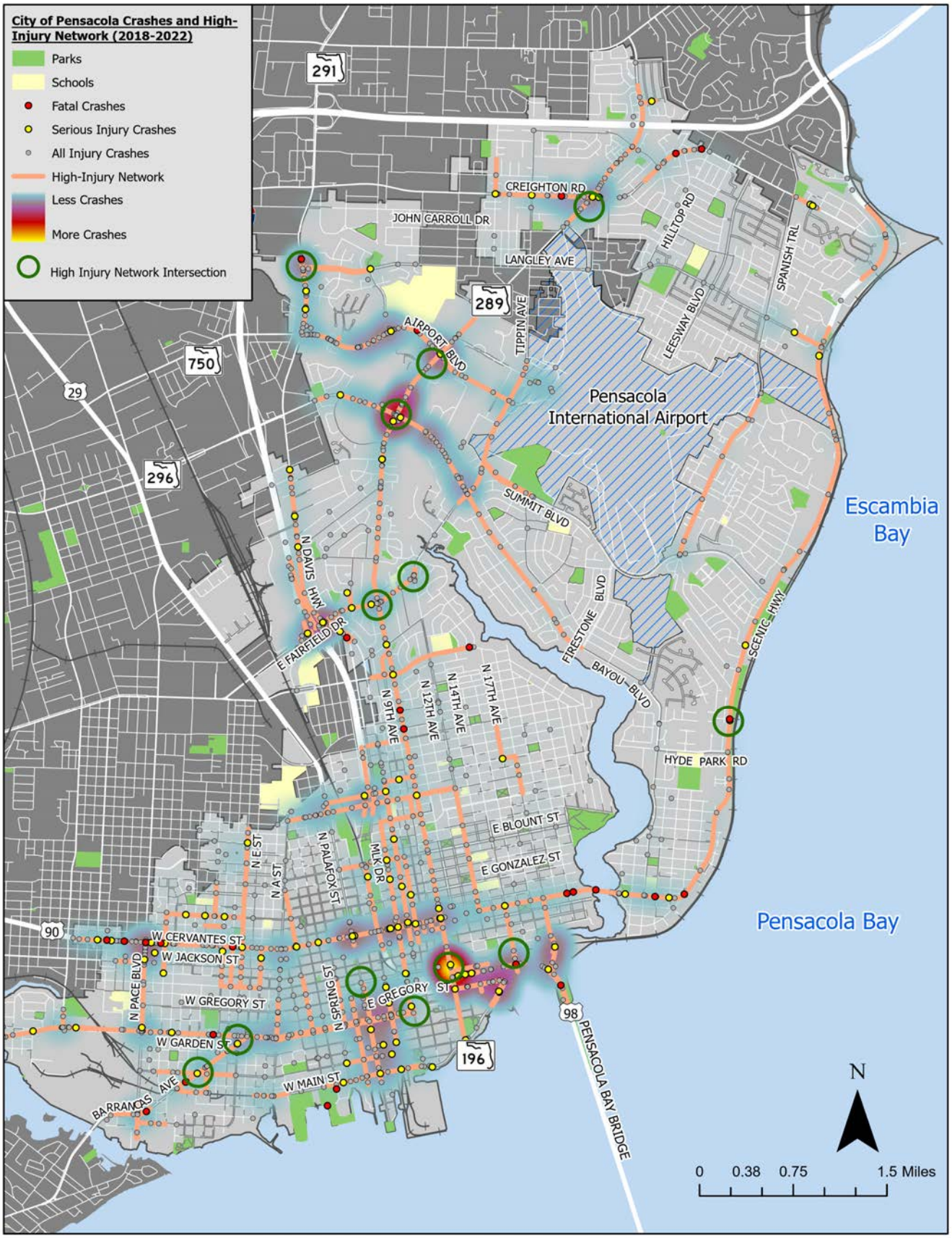
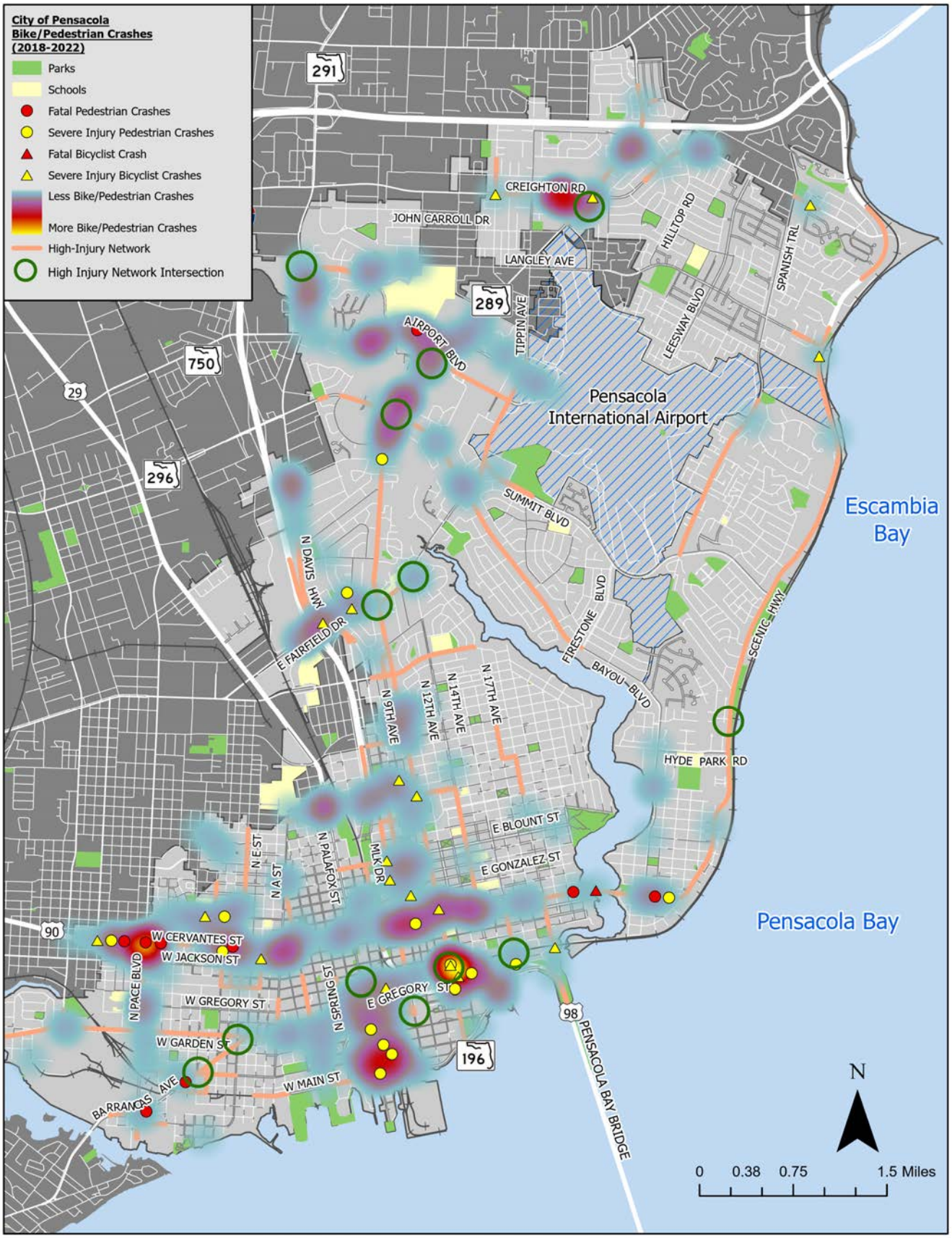


Figure 8. 5-Year Bicycle and Pedestrian Crash Map (2018-2022)



Disadvantaged Communities

When considering future improvements for the bicycle and pedestrian network in Pensacola, it is important to ensure enhancements are made for disadvantaged communities within the City. Pensacola's transportation network - which has prioritized automobile travel over the past decades - has created barriers for disadvantaged communities in the City to travel easily and safely. Providing equitable access to jobs, food, education, healthcare, and other community resources for all who live in Pensacola was a primary goal when developing this active transportation plan.

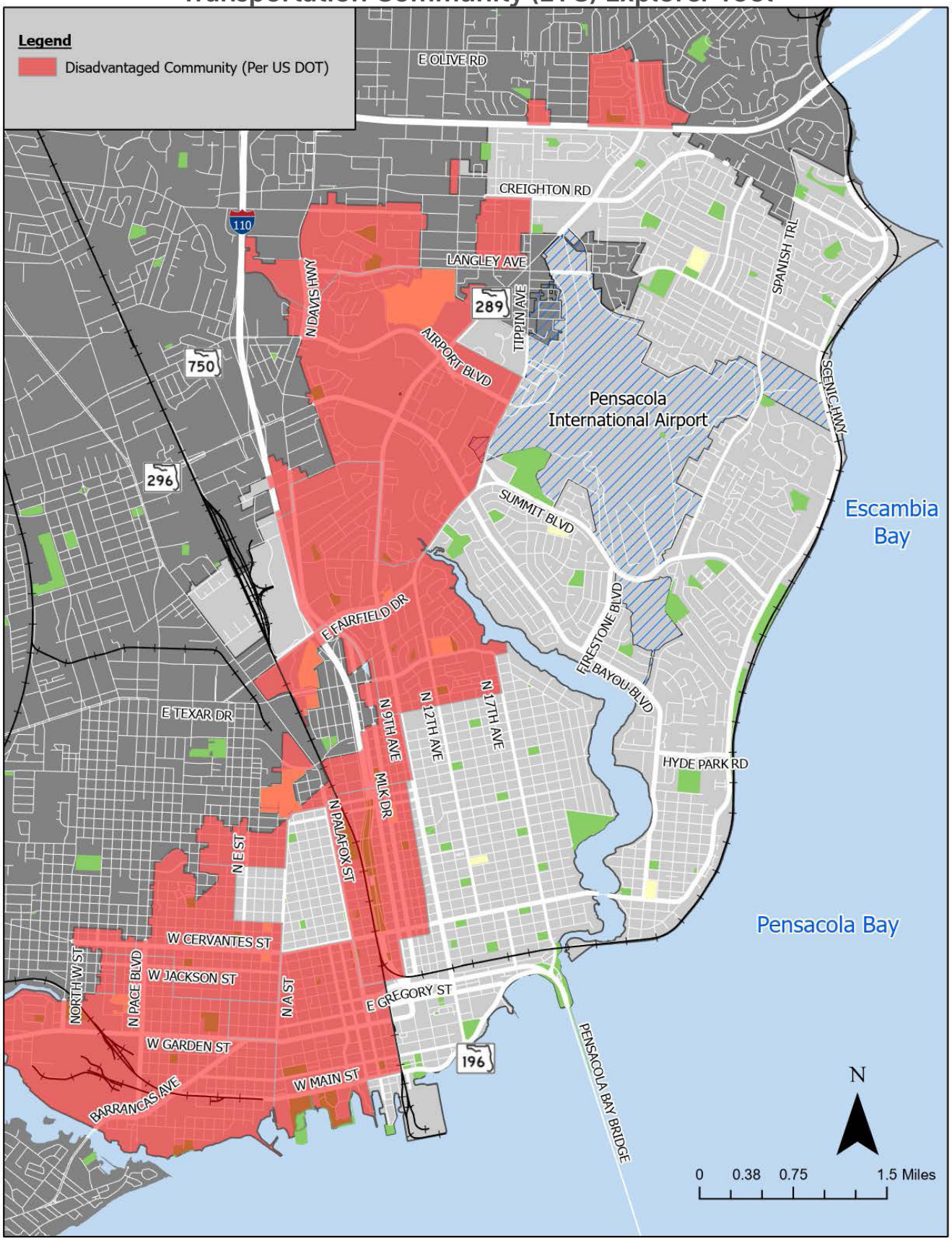
The U.S. Department of Transportation's (DOT) Equitable Transportation Community (ETC) Explorer Tool was utilized to better understand where disadvantaged households live throughout the City. **Figure 9** shows Census Tracts that were classified as transportation disadvantaged within the City using the ETC Explorer Tool. Tracts were considered disadvantaged depending on how they scored on various characteristics such as poverty status, vehicle access, environmental burdens, and transportation safety concerns. The Tracts considered disadvantaged in Pensacola are concentrated in the western portion of the City along with some tracts north of downtown.

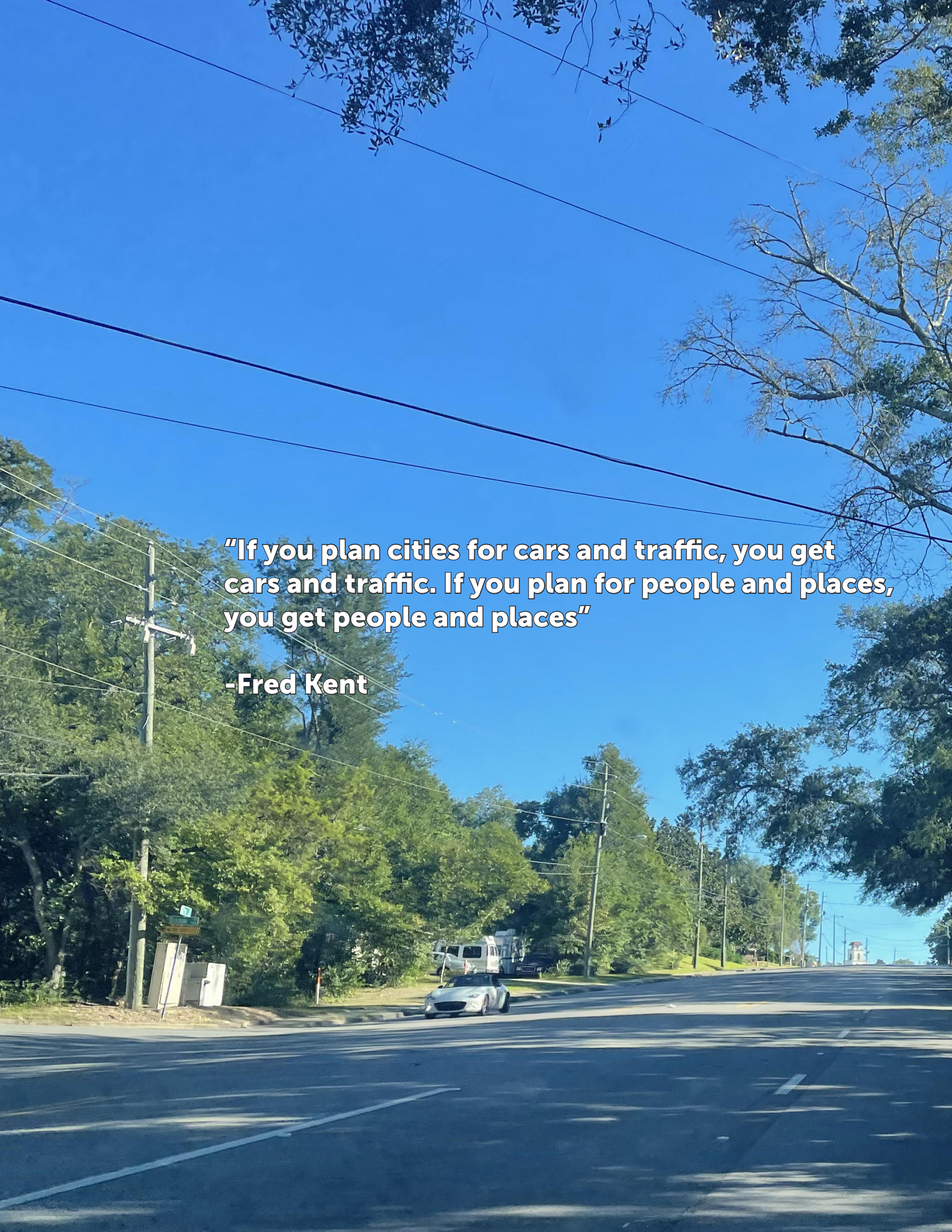
The City of Pensacola has:

- **8%** of households with zero-vehicles
- **40%** of households with one vehicle
- **15%** of households below the poverty line
- **28%** of households identifying as having a disability[1]

[1] Characterized as a difficulty with either hearing, vision, cognitive, ambulatory, selfcare, and/or independent living per U.S. Census Bureau

Figure 9. Disadvantaged Community Census Tract per DOT Equitable Transportation Community (ETC) Explorer Tool



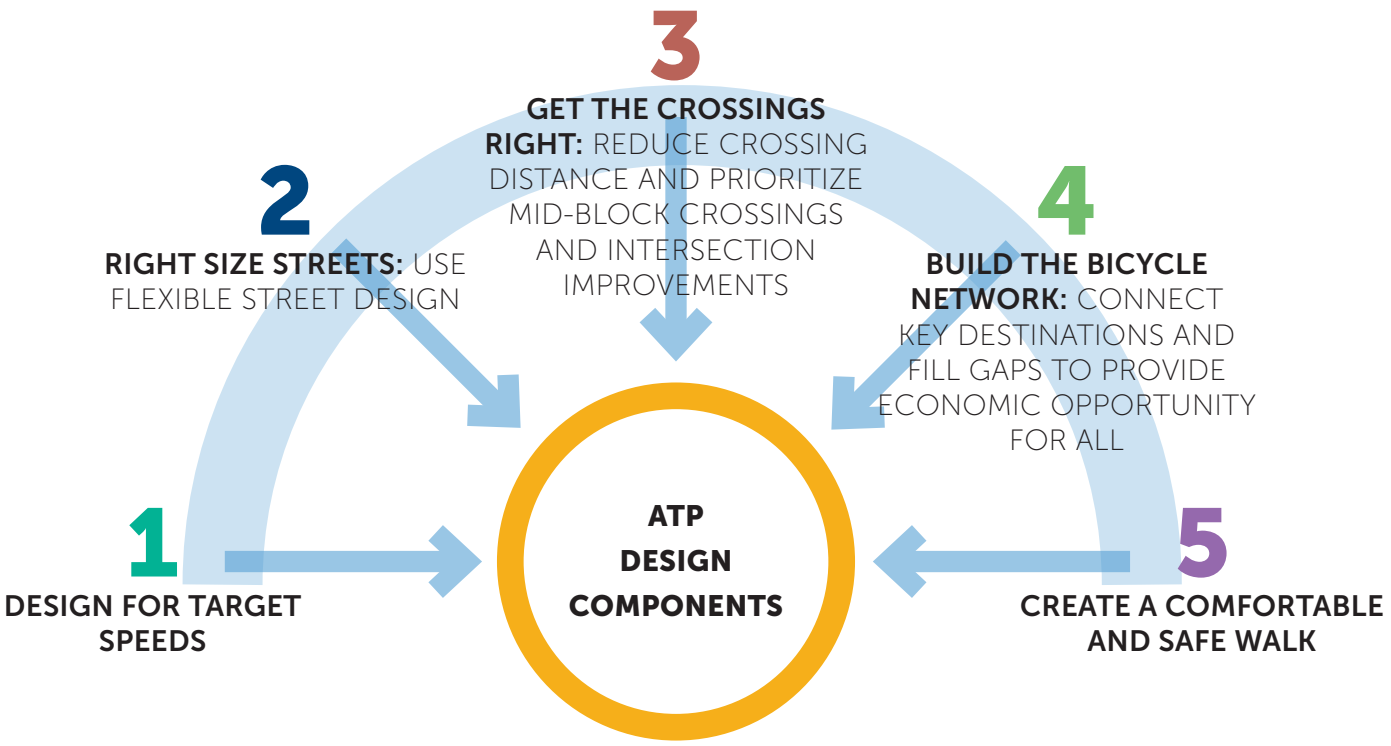

“If you plan cities for cars and traffic, you get cars and traffic. If you plan for people and places, you get people and places”

-Fred Kent

SECTION 3
WHERE ARE WE GOING?

Strategic Recommendations to Create a Comfortable ATP Network

This section discusses strategies and priorities in creating and building an active transportation network over time. The purpose is to create comfortable streets for people walking, bicycling, or wheeling around the City. These strategies can also help with the comfort and safety of those using other types of micromobility such as e-bikes and scooters.



Quick-Build Projects

The ATP includes a range of tools and strategies to create safer, well connected streets for bicyclists, pedestrians, and motorists. Some of these tools are quick-build projects which can be rapidly implemented and constructed. Quick-build projects can be pilot projects or interim build projects.

- Pilot projects tend to be based more on the concept of testing a solution during a cost-effective, quick-build implementation before deciding whether investment in a more permanent reconstruction is warranted.
- Interim-build projects are used to provide the public with the benefits of a project much earlier than otherwise would be available by waiting until the full reconstruction is funded, designed, and built.

Source: City Of Honolulu

Source: Kimley-Horn

Source: City Of Milwaukee

Source: City of Seattle

1 Design for Target Speeds

Ideally, the desired operating speeds or target speed in which we would like drivers to be driving should be aligned with the posted speed and the design of the street. However, design speed and posted speed will often take time to change and may even need to be changed over the course of several projects. Target speed can be set immediately and serves as the "target" or "goal" for design speed and posted speed on a project.

Other Guidance:

The table to the right is a design speed table that FDOT has identified for different areas within a city. The FDOT Design Manual has more information regarding speeds for each roadway context classification.

The National Association of City Transportation Official (NACTO) City Limits publication recommends starting by setting citywide default speeds. If feasible, set default speed limits by category of street (25 mph on arterials, 20 mph on non-arterials). NACTO discusses slow zones should be identified (schools, parks, other areas of high activity) and reviewed for reductions of posted speed beyond those mentioned.

[NACTO Website]

FDOT Design Speeds and Context Classification

Arterials and Collectors		
Context Classification	**Allowable Design Speed Range (mph)**	**SIS Minimum (mph)**
C1 Natural	55-70	65
C2 Rural	55-70	65
C2T Rural Town	25-45	40
C3 Suburban	35-55	50
C4 Urban General	30-45	45
C5 Urban Center	25-35	35
C6 Urban Core	25-30	30

Top Priorities

Use best practices to change policies to **set posted speed limits** at:

- Transition to 20-25 mph posted speeds in downtown depending on the street type, in neighborhoods and in other areas with destinations and points of activity
- Will need proper design (outlined in the flexible design guidance) and traffic calming tools in tandem with priority ATP network to achieve desired operating speeds

Definitions

Design Speed: The speed on which the geometry or physical elements of the roadway is based.

Operating Speed: The speed at which vehicles are traveling along a roadway.

Posted Speed Limit: The maximum lawful speed as displayed on a regulatory sign.

Statutory Speed Limit: The speed limit established under law, which applies in the absence of a posted speed limit.

Target Speed (also referring to as desired operating speed): The highest speed that designers intend drivers to go on a specific street or road

Posted Speed Above Desired Operating Speed

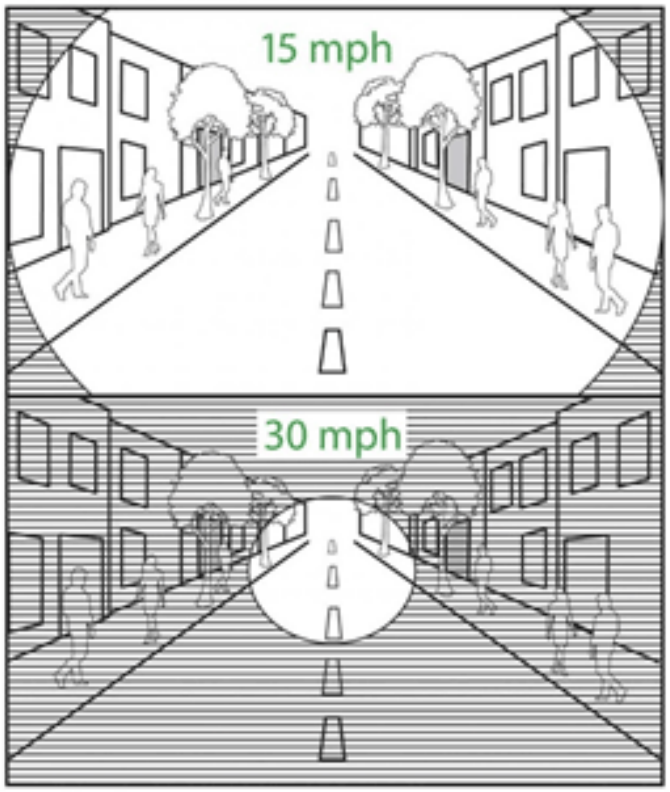
When vehicle speeds exceed design speeds, the roadway may pose significant safety issues.

Speed Kills

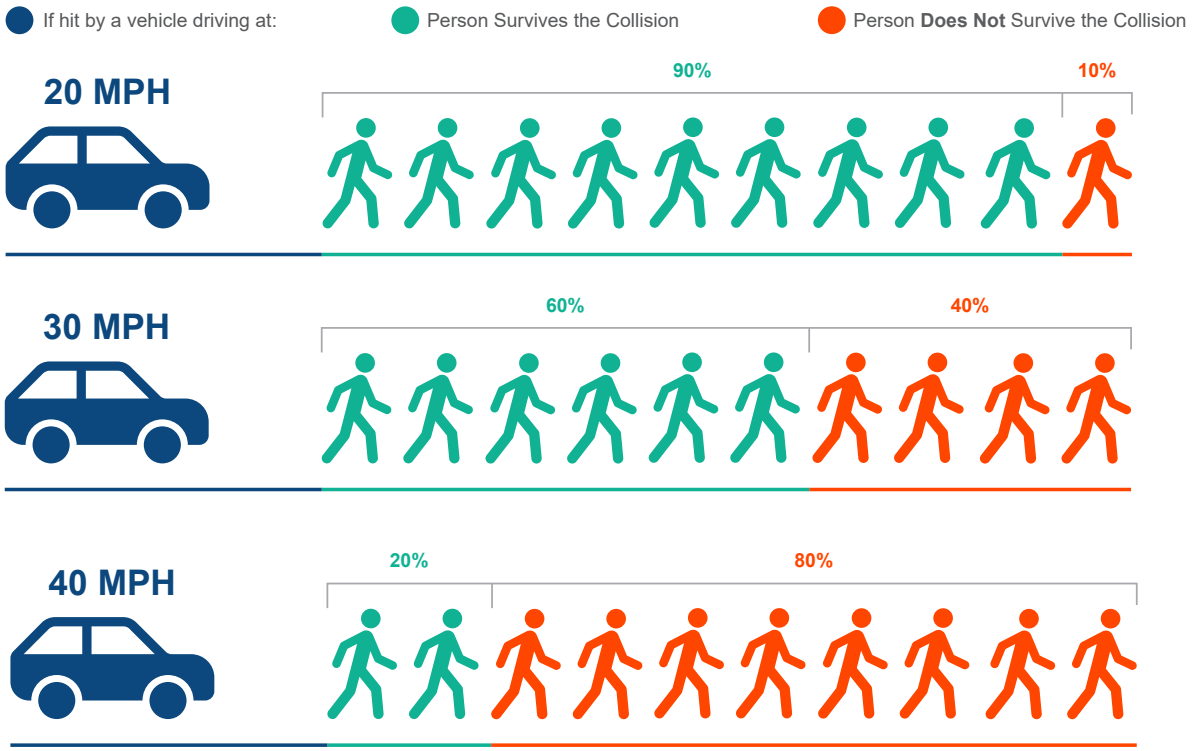
Speed plays a significant role in the severity of pedestrian and bicycle crashes. The graphic below depicts the likelihood a person survives a crash at various vehicle speeds, which significantly decreases as vehicles travel greater than 20 miles per hour.

How Speed Kills:

1. *Force:* Vehicles traveling at higher speeds have more force which increases the chances of death or serious injury over 30 miles per hour.
2. *Field of vision:* There is a narrower field of vision when driving fast - meaning you see less of your surroundings.
3. *Reaction time and braking:* When traveling at higher speeds you have less time to react and your braking distance is longer.



A drivers visual field shrinks as speed increases.
Source: Streets.mn



Speed Management Tools

There are a number of tools to better align vehicles in which people are driving to desired operating or target speeds for safety purposes. Below is list of speed management tools, which generally have four main techniques, to design streets appropriately:

Vertical Deflection: Measures that use vertical obstacles that manage speeds

Horizontal Deflection: Measures which use curves to manage speeds or "straight shots"

Street Width Reduction: Roadway size changes that affect driver perceptions to manage speeds

Other Speed Management Techniques: Roadway changes related to traffic calming, like routing restrictions, that less directly manage speeds

Speed Hump and Speed Table

Benefits:

- Speed humps reduces vehicle speeds to 15-20 mph
- Speed tables may be used on streets that range from 25-35 mph
- Best used on low-volume, low-speed streets

Typical Costs:

- Moderate

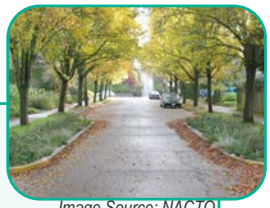


Image Source: NACTO

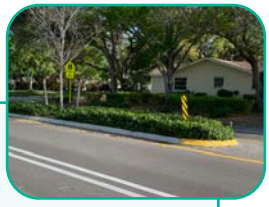
Pinchpoints

Benefits:

- Slows vehicle speeds by reducing the roadway width
- Can be used in conjunction with mid-block crossings
- Best used on low-volume streets

Typical Costs:

- Low to Moderate



Medians

Benefits:

- Separates and limits vehicle access
- Can be used in conjunction with pedestrian refuge islands
- Opportunity for landscaping/pervious surface

Typical Costs:

- Moderate

Image Source: NACTO

Chicanes

Benefits:

- Provides friction
- Slows vehicles speeds by reducing the roadway width at specific points
- Space may be used for landscaping, bike racks, lighting, and other street furniture
- Best used on low-volume, downtown streets

Typical Costs:

- Low to Moderate

Shade Trees and Landscaping

Benefits:

- Create comfort in inhospitable environments, especially for pedestrians and transit users
- Limits sight lines for motorists, naturally causing vehicles to slow down

Typical Costs:

- Moderate

On-Street Parking

Benefits:

- Creates friction along the streets which results in slower vehicle speeds
- Provides a buffer between vehicle traffic, the sidewalk, and bike lane in some designs
- Best used in downtowns and slower speed residential streets

Typical Costs:

- Low to Moderate

Speed Feedback Signs

Benefits:

- Provides drivers with feedback about their speed in relationship to the posted speed limit.

Typical Costs:

- Low

Image Source: NACTO

Lane Width Reduction or Restriping

Benefits:

- Narrower travels lanes promote slower driving which reduces crash severity

Costs:

- Low

QUICK-BUILD PROJECT

Lane Elimination

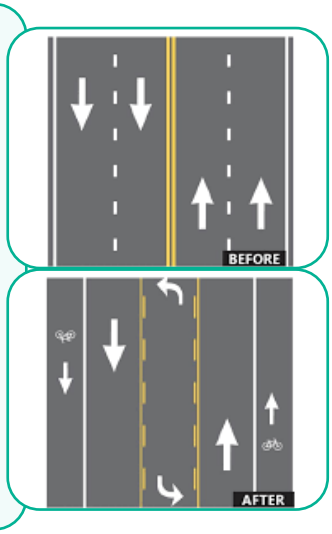
Benefits:

- Improves sight distances for left-turning vehicles
- May provide additional space for bike lanes, landscaping, on-street parking, traffic calming, or other street elements

Typical Costs:

- Low to Moderate

QUICK-BUILD PROJECT



2 Right Size Streets: Use Flexible Street Design

In order to achieve desired operating speeds, streets need to be designed appropriately. Not all streets should be designed the same, and they should take into account where they are in the City including the surrounding activities and propensity for regional versus local traffic, bicyclists, and pedestrians. Roadway design standards set the bases for speed limits, so the opportunity to reduce speeds through design, without significantly reducing travel time, is important. A goal is to not have a significant difference between target operating speeds, posted speed limits, and design speed.

Since the mid-20th century, the decision-making process for street improvements has been focused on moving a given amount of automobile traffic based on the street's functionality. Street design was one goal fits all, focused almost exclusively on automobiles regardless of the urban or suburban land use context. Sidewalks and bicycle facilities were added if sufficient right-of-way was available. The flexible design, context-sensitive approach flips that conventional decision-making process and considers context first. As depicted in the graphic on the following page, a flexible decision-making process considers how all people and modes use the transportation network. This section provides flexible street design guidance for City staff and private developers in planning a transportation network that is in tune with the varying land use contexts within the City. This guidance is for planning purposes and individual project design and construction will need to meet city engineering standards.

Top Priorities

Use best practices to change policies to reallocate space in areas such as downtown or near commercial areas, parks, schools, and transit stops for economic opportunities:

- Those bicycling and walking **should be separated from vehicles** where speeds are over 25 mph
- Reallocate space for quick-builds based on analysis. Reduce turn lanes, reduce lane widths when possible, repurpose lanes on lower volume streets
- For downtown context, design the sidewalk for walking, dining, trees for shade, and for flex spaces (bike parking, scooters, e-bikes)

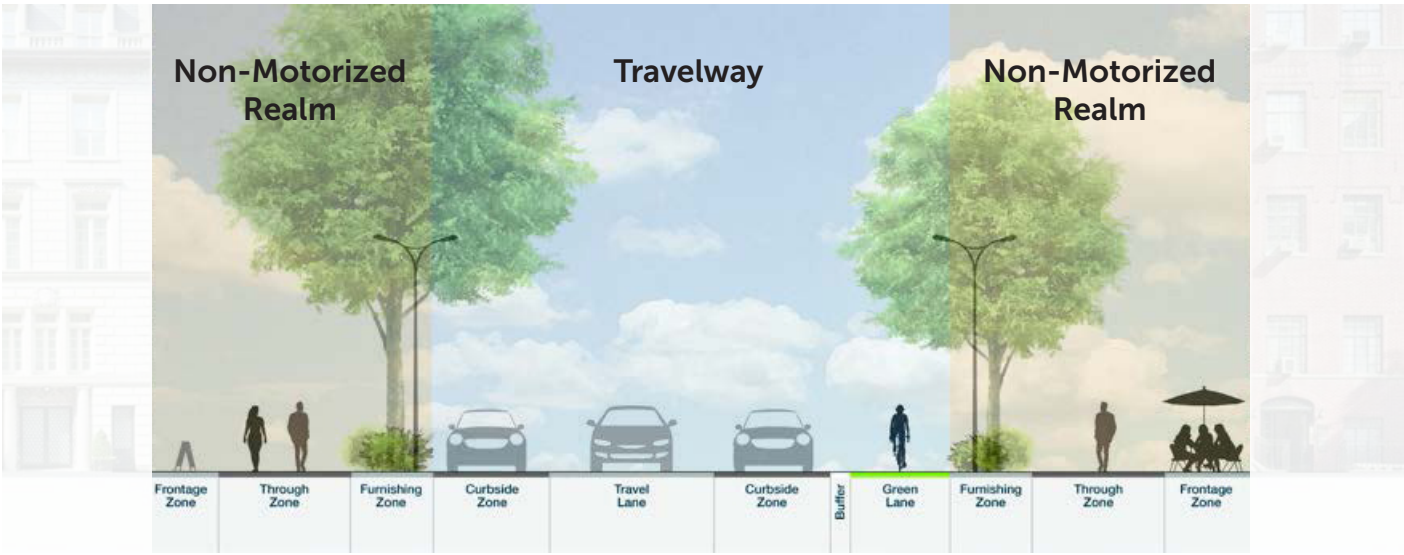
Flexible Street Design Guidance Overview

Flexible street design guidance helps City staff and private developers in planning a transportation network that is in tune with the varying land use contexts within the City.

The guidance addresses street components within the public right-of-way for changes to streets in the future. This includes the travelway and the non-motorized realm. Generally, these areas include sidewalks, street trees, landscaping, parking, bike facilities, trails, and travel lanes. Each context zone and street type outlines specific guidance for each of the components within the travelway and pedestrian realm. Some items in the guidance includes quick-build projects for rapid implementation.

Street design will change in different parts of the City from downtown to the suburban areas. For example, suburban areas may not have as many furnishings; or the curbside zone will be different where there isn't as much on-street parking or deliveries adjacent to curb like in downtown.

Design Guidance Street Realms



Non-Motorized Realm

The Non-Motorized Realm accommodates more than just pedestrian movement. The pedestrian-oriented setting of the Non-Motorized Realm is comprised of the sidewalk, street furnishings, landscaping, multimodal facilities, and frontages to the surrounding land uses. Accomodating multiple travel modes into a space separated from the roadway promotes a safer and more vibrant space for pedestrians. Shifting away from vehicle-focused trips to the Non-Motorized Realm begins with crafting attractive facilities that match their environments.

Travelway

The Travelway is defined as the space between the curbs on a street. This space is generally allocated to the movement of people, either in vehicles, on bicycles, or riding transit. Freight movement is significant roadway function that must be considered in the overall mobility network. It is essential to consider the operations and activity of nearby land uses and the importance of freight when designing or redeveloping future streets. Well-planned lane allocation and configuration of other on-street elements such as bicycle lanes, on-street parking, and medians ensure that a roadway is being used to its maximum potential. Target speeds are achieved and multimodal infrastructure is successful when a street is designed as a product of its context, thus improving safety and travel for all street users.

Example of Non-Motorized Realm

Example of Travelway

Example of Non-Motorized Realm

Example of Travelway

Curbside Zone

The Curb Zone occupies the space between the edge of the Travelway and the Furnishing Zone and typically consists of the street curb, and in some cases it may consist of other items. An effectively designed Curb Zone increases the flexibility of the Travelway, making it a space capable of supporting a variety of activities for many users. Curb management should first consider the uses critical to the street context such as transit stops, transit lanes, and micro-mobility infrastructure. Next, transit and business supportive elements like on-street parking, bikeshare stations, loading zones, and rideshare loading are assigned. The remaining portion of the curb can be used for the extension of the Non-Motorized Realm, stormwater infrastructure, on-street parking, trash collection, or beautification installments.

The Curb Zone may also be expanded to include sidewalk-level separated bicycle lanes (raised bicycle lanes) capable of supporting different modes of micro-mobility or elements that expand the sidewalk into the Travel Way (e.g., parklets). In more suburban settings, the Curb Zone may also include swale areas for roadway drainage.

Example of the Curbside Zone

Example of the Curbside Zone

Context Zones

The context zones reflect general characteristics of streets within Pensacola. The defining characteristics largely reflect the era in which the streets were originally constructed. The Urban Center "Downtown" context consists of a central core, small, walkable blocks, connected street network, and narrow streets. The Urban General "Pre-Mid 20th Century" context includes a larger area outside of downtown with small, walkable blocks, connected street network, and mostly narrow streets. The Suburban "Post-Mid 20th Century" context includes winding streets, cul-de-sacs, and wider streets with excess pavement. Understanding there are unique development patterns within the City, the Special Areas context include industrial areas and historic areas that may have unique streets and need special design considerations.

C5 - Urban Center "Downtown"	Area with the highest density and an integrated mix of uses. Narrow streets with an interconnected street network with walkable block sizes and frequent crossings.
C4 - Urban General "Pre-Mid 20th Century"	Area with the moderate density and an integrated mix of uses. Narrow streets with an interconnected street network with walkable block sizes and frequent crossings.
C3 - Suburban "Post-Mid 20th Century"	Area with lower densities and separated uses. Wider streets with less connectivity and limited crossings.
Special Areas: • **Industrial** • **Historic**	Industrial areas with large parcels, brownfields, and warehouse uses. Historic areas with historically narrow streets and compact developments.

Expected User Types in Different Context Classifications

Source: FDOT

Street Types

A typology refers to a categorization of items that have similar characteristics. To apply consistent design elements across similar streets, the Flexible Street Design Guidance groups all Pensacola streets into select typologies based upon speed, use, and purpose within the overall transportation network. Since most of Pensacola's streets have reached their full width—except in places where redevelopment is planned to occur—an approach to classifying streets on the basis of physical characteristics and their purpose within the larger network was applied.

Arterials (A) **"Gateways"**	• Streets that carry the most capacity • Typically four lanes or above at intersections, some two-lane streets • Regional connections
Collectors (C) **"Connectors"**	• Streets that carry moderate capacity • May have two to four travel lanes • Inter-city connections
Local Streets (L) **"Neighborhood Community"**	• Streets that serve neighborhood and residential uses • Neighborhood connections

How to Use the Flexible Street Design Guidance

STEP 1: Find the Street Type

Figure 10, on the following page, contains all streets within the City and their assigned typologies based on their current and desired function within the transportation network. Before beginning any street improvement project or major development project along a street, the map should be referenced to determine the street type and context characteristics. It is also important to note who owns the street (City, County, FDOT) at this step.

STEP 2: Reference the Flexible Street Design Guidance Tables

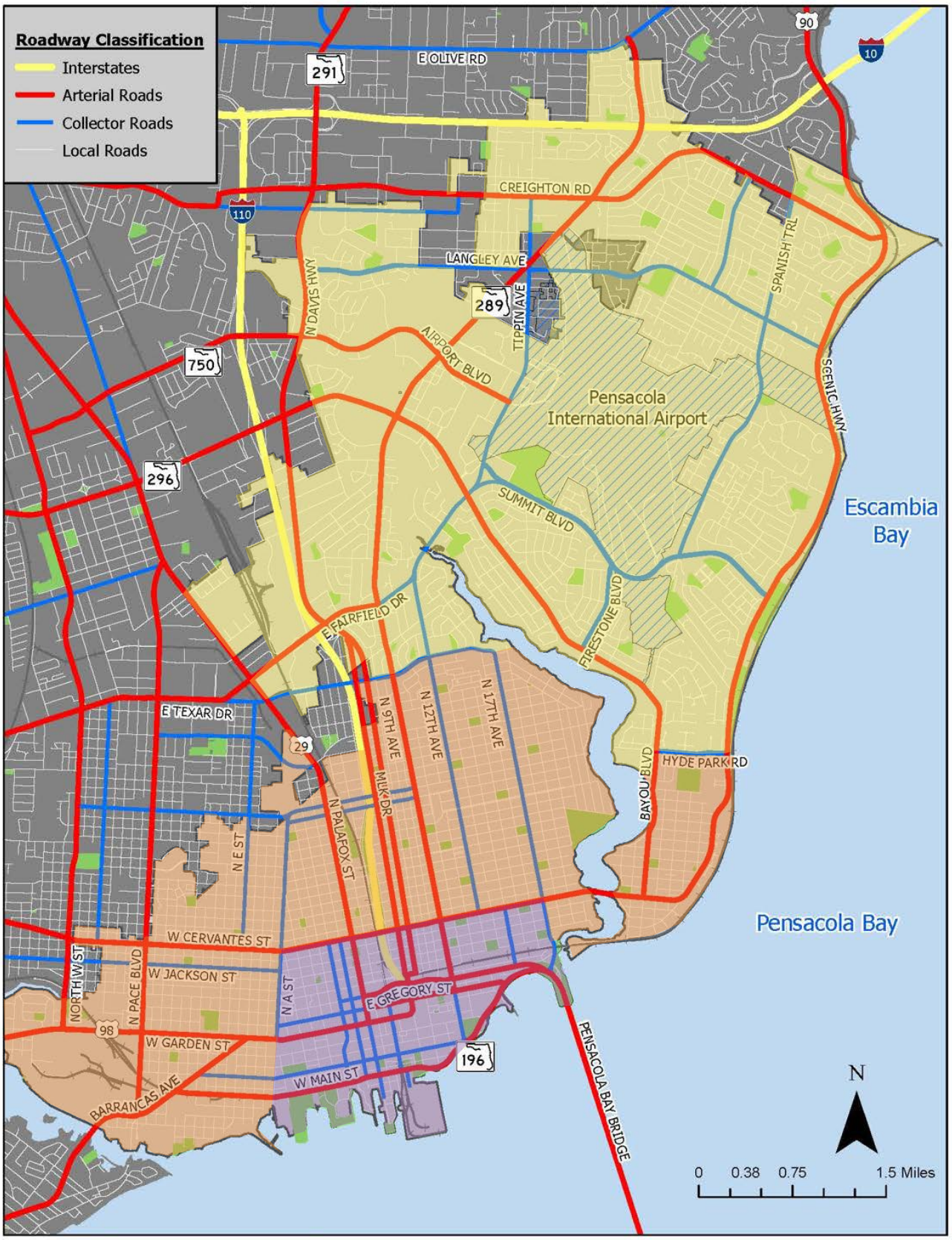
The following pages provide specific guidance for the standard design of bicycle and multimodal, pedestrian, curbside, and vehicular travel facilities for each street type. These standards provide a starting point and decision-making guide for the majority of streets within the City.

STEP 3: Finalize the Preferred Design

Each street within the City is likely to have special circumstances, which will require exceptions from the standards laid out in this guidance. Proximity to schools, high density of commercial activities, constrained right-of-way, or stormwater challenges all call for customized solutions that work within the ATP guiding principles to provide enhanced accessibility to travelers of all ages and abilities. Temporary solutions are possible for more rapid implementation where additional engineering may be necessary for a permanent improvement.

Figure 10. Roadway Classification Map

The Flexible Street Design Guidance is intended to evolve based on the surrounding context. As the City changes and redevelops, some commercial areas may resemble an Urban Center (C5) context.



Flexible Street Design Guidance Table

The table below lists the recommended dimensions and uses for each of the street design elements contained within this Design Guide. More information is provided throughout the document. Lower ranges include minimum desired. **In some constrained environments or where there are narrow streets - particularly in downtown - sidewalk and amenity/buffer widths may not be achievable and improvements should be coordinated with the City Engineer.**

		Context Classification		
	Flexible Street Design Guidance	**Urban Center (C5)**		
		Arterial	Collector	Local Community
Overall Top Priority Guidance	**Target Speed (mph)**	30-35	25-30	20-25
	Modal Priority	Pedestrian, transit, vehicle	Pedestrian, bicycle, transit	Bicycle, pedestian
	Preferred Bicycle Network	Separated - trail/ shared use path, protected bicycle lane	Separated - trail/shared use path, protected bicycle lane (1)	Neighborhood greenway/ bicycle blvd
Non-Motorized Realm	**Pedestrian Through Zone Sidewalk Width (feet) - Minimum Desired**	8'-12'+	6'-12'+	5'-10'
	Amenity Zone - landscaping, furnishing, utilities (feet) Minimum - Desired	3'-6'	3'-6'	2'-5'
Curbside Zone	**Curb and Gutter (feet)**	2'	2'	2' (2)
	On-Street Parking	Analysis needed	Encouraged	Encouraged
	Flex Zone (could include bike parking, bikeshare, micromobility)	Not recommended	For drop-off/ freight loading	For drop-off/ freight loading
Traveled Way	**Lane Widths (3)**	11'	10'-11'	10'-11'
	Medians/Two-Way Left Turns in feet	11'-12'	11'-12'	-
	Bicycle Facility	10'-12' shared use path(4) with separation if possible	6' + 2' buffer	Neighborhood greenway/ bicycle blvd elements
	Distance Between Crossings	Every block	Every block	Every block

(1) Low speeds(<30 mph)/low volumes (<1,500 AADT) - Neighborhood Greenway/Bicycle facilities may be acceptable. Buffered or Conventional Bike Lanes are acceptable with volumes (under 6,000 AADT) and speeds <25 mph (with a buffer preferred)
(2) Opportunities for curbless streets
(3) Will depend on emergency/solid waste/freight and FDOT SIS facilities
(4) Shared use path may also be used as a pedestrian facility.

Note: The non-motorized realm can be combined to include varying widths of pedestrian through zone and amenity zone.

	Flexible Street Design Guidance	Context Classification		
		Urban General (C4)		
		Arterial	Collector	Local Community
Overall Top Priority Guidance	Target Speed (mph)	30-40	25-35	20-25
	Modal Priority	Vehicle, transit	Vehicle, bicycle, transit	Bicycle, pedestrian
	Preferred Bicycle Network	Separated - trail/ shared use path, protected bicycle lane	Separated - trail/shared use path, protected bicycle lane (1)	Neighborhood greenway/ bicycle blvd
Non-Motorized Realm	Pedestrian Through Zone Sidewalk Width (feet) - Minimum Desired	6'-8'	6'-8'	6'-8'
	Amenity Zone - landscaping, furnishing, utilities (feet) Minimum - Desired	4'-8'	4'-8'	2'-4'
Curbside Zone	Curb and Gutter (feet)	2'	2'	2' (2)
	On-Street Parking	Analysis needed	Encouraged	Encouraged
	Flex Zone	Not recommended	For drop-off/ freight loading	For drop-off/ freight loading
Traveled Way	Lane Widths (3)	11'	10'-11'	10'-11'
	Medians/Two-Way Left Turns in feet	11'-12'	11'-12'	-
	Bicycle Facility	10'-12' shared use path with separation if possible	6' + 2' buffer	Neighborhood greenway/ bicycle blvd elements
	Distance Between Crossings	1/16 to 1/8 mile(4)	1/16 to 1/8 mile	Every block

(1) Low speeds(<25mph)/low volumes (<1,500 AADT) - Neighborhood Greenway/Bicycle facilities may be acceptable. Buffered or Conventional Bike Lanes are acceptable with volumes (under 6,000 AADT) and speeds <25 mph (with a buffer preferred)
(2) Opportunities for curbless streets
(3) Will depend on emergency/solid waste/freight and FDOT SIS facilities
(4) See FDOT Crossing Distance Policy and Context Classification on page 61

Note: The non-motorized realm can be combined to include varying widths of pedestrian through zone and amenity zone.

		Context Classification		
	Flexible Street Design Guidance	Suburban (C3)		
		Arterial	Collector	Local Neighborhood
Overall Top Priority Guidance	Target Speed (mph)	40-45	30-40	20-25
	Modal Priority	Vehicle, transit	Bicycle, pedestrian, transit	Bicycle, pedestrian
	Preferred Bicycle Network	Separated - trail/ shared use path	Separated - trail/shared use path, protected bicycle lane (1)	Neighborhood greenway/ bicycle blvd
Non-Motorized Realm	Frontage Zone/Door	3'	3'	3'
	Pedestrian Through "Walk/Talk" Zone (feet) Minimum - Desired	6'-8'	6'-8'	6'-8'
	Amenity Zone - landscaping, furnishing, utilities (feet) Minimum - Desired	6'-8'	4'-6'	2'-4'
Curbside Zone	Curb and Gutter (feet)	2'	2'	2' (2)
	On-Street Parking	Off-street	Off-street	Encouraged
	Flex Zone	Not recommended	Not recommended	For drop-off/ freight loading
Traveled Way	Lane Widths (3)	11'	11'	10'-11'
	Medians/Two-Way Left Turns in feet	11'-12' with curbed median/speed management landscaping		-
	Bicycle Facility	10'-12' shared use path with 4' or more separation	6' + 2' buffer or shared use path	Neighborhood greenway/ bicycle blvd elements
	Distance Between Crossings	1/4 mile	1/8 to 1/4 mile	Every block

(1) Low speeds(<25mph)/low volumes (<1,500 AADT) - Neighborhood Greenway/Bicycle facilities may be acceptable. Buffered or Conventional Bike Lanes are acceptable with volumes (under 6,000 AADT) and speeds <25 mph (with a buffer preferred)
(2) Opportunities for curbless streets
(3) Will depend on emergency/solid waste/freight and FDOT SIS facilities

Note: The non-motorized realm can be combined to include varying widths of pedestrian through zone and amenity zone.

		Context Classification	
	Flexible Street Design Guidance	Special Areas (SA)	
		Historic	Industrial
Overall Top Priority Guidance	Target Speed (mph)	15-20	25-35
	Modal Priority	Pedestrian, bicycle	Vehicle
	Preferred Bicycle Network	On-street [1]	None
Non-Motorized Realm	Frontage Zone/Door	Coordinate with City Engineer	
	Pedestrian Through "Walk/Talk" Zone (feet) Minimum - Desired		
	Amenity Zone - landscaping, furnishing, utilities (feet) Minimum - Desired		
Curbside Zone	Curb and Gutter [2] (feet)		
	On-Street Parking		
	Flex Zone		
Traveled Way	Lane Widths [3]		
	Medians/Two-Way Left Turns in feet		
	Bicycle Facility		
	Distance Between Crossings		

(1) Low speeds(<25mph)/low volumes (<1,500 AADT) - Neighborhood Greenway/Bicycle facilities may be acceptable. Buffered or Conventional Bike Lanes are acceptable with volumes (under 6,000 AADT) and speeds <25 mph (with a buffer preferred)
(2) Opportunities for curbless streets
(3) Will depend on emergency/solid waste/freight and FDOT SIS facilities

Note: The non-motorized realm can be combined to include varying widths of pedestrian through zone and amenity zone.

Gonzalez Street Typical Sections

Below are typical sections that show the different elements and dimensions in facilities depending on the street type and context area.

EXISTING CROSS SECTION

Note: Measurements are approximate for visualization and do not include curbs.

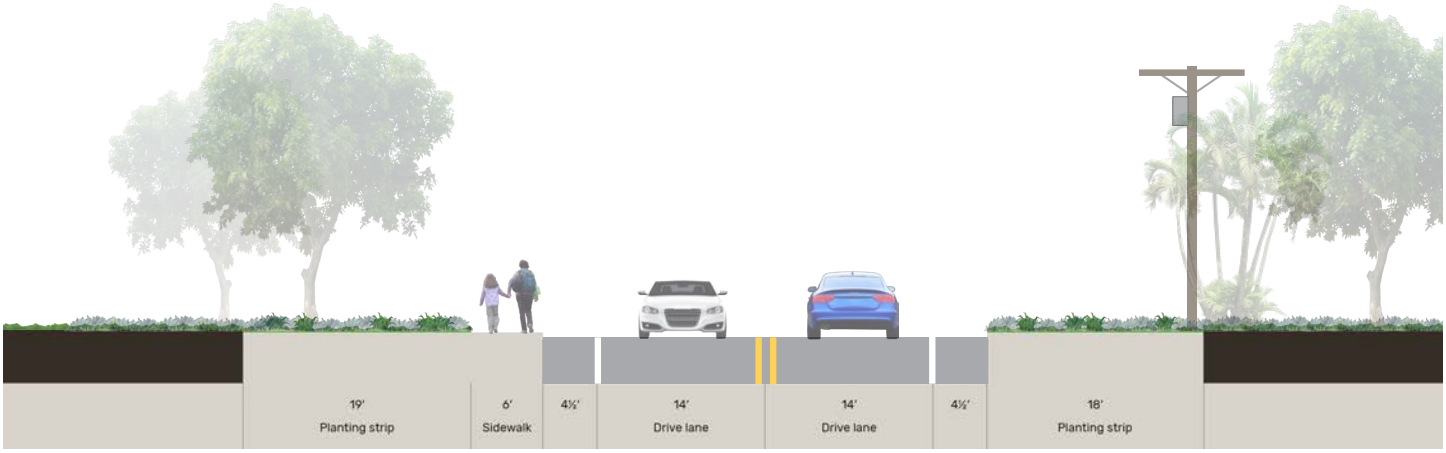
IDEAL CROSS SECTION: NEIGHBORHOOD GREENWAY

Note: Measurements are approximate for visualization and do not include curbs.

Spanish Trail Typical Sections (80' ROW)

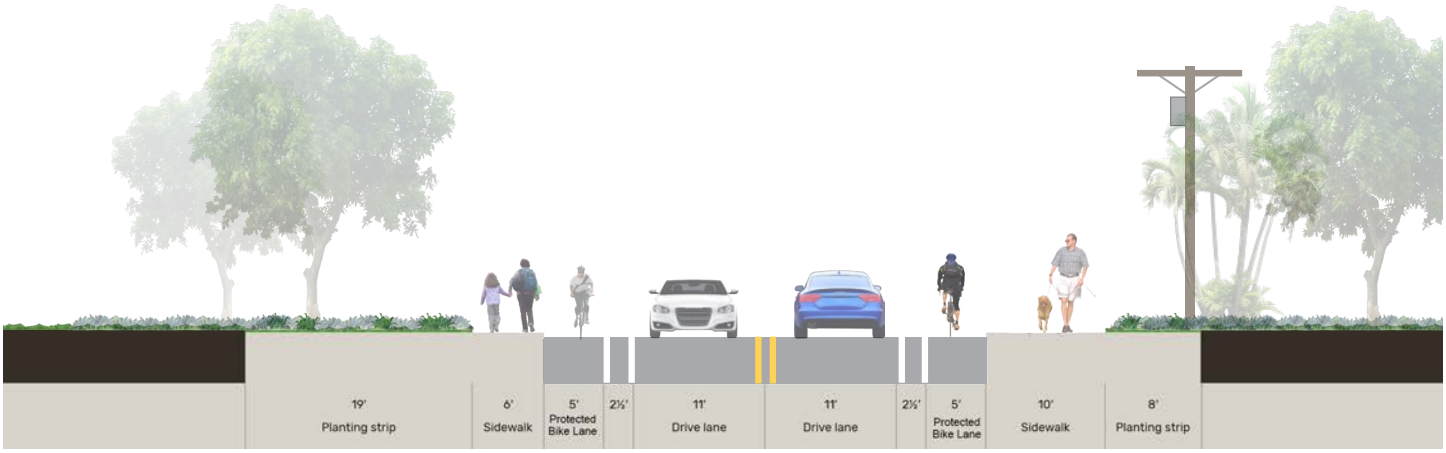
Below are typical sections that show the different elements and dimensions in facilities depending on the street type and context area.

EXISTING CROSS SECTION



Note: Measurements are approximate for visualization and do not include curbs.

IDEAL CROSS SECTION: PROTECTED BIKE LANE & SIDEWALK

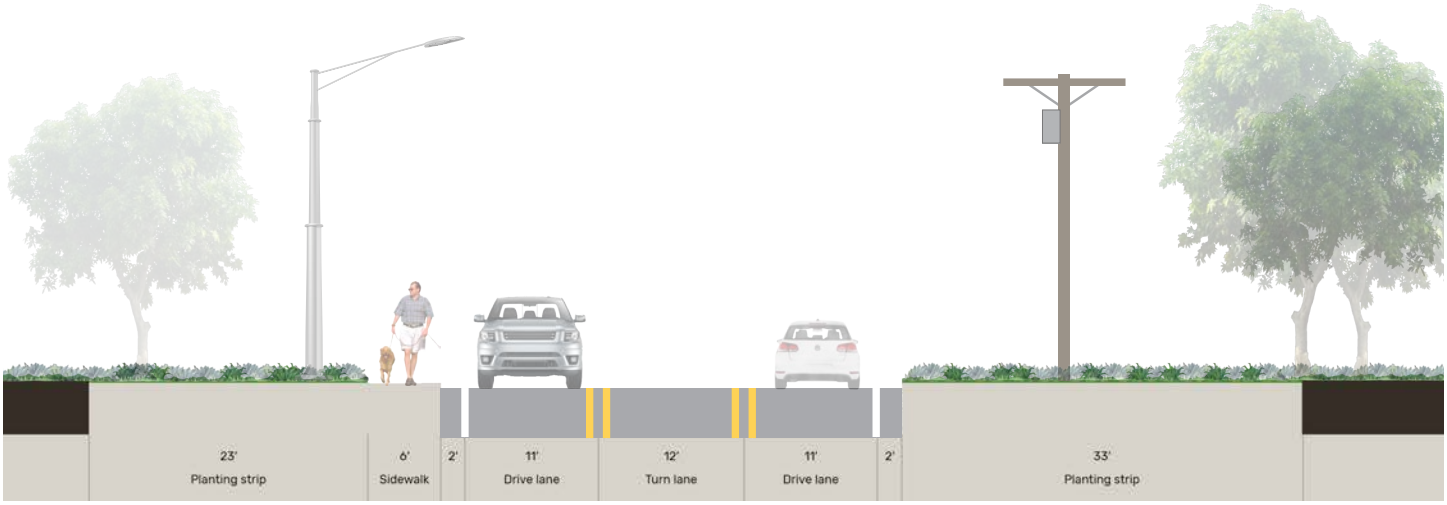


Note: Measurements are approximate for visualization and do not include curbs.

Spanish Trail Typical Sections (100' ROW)

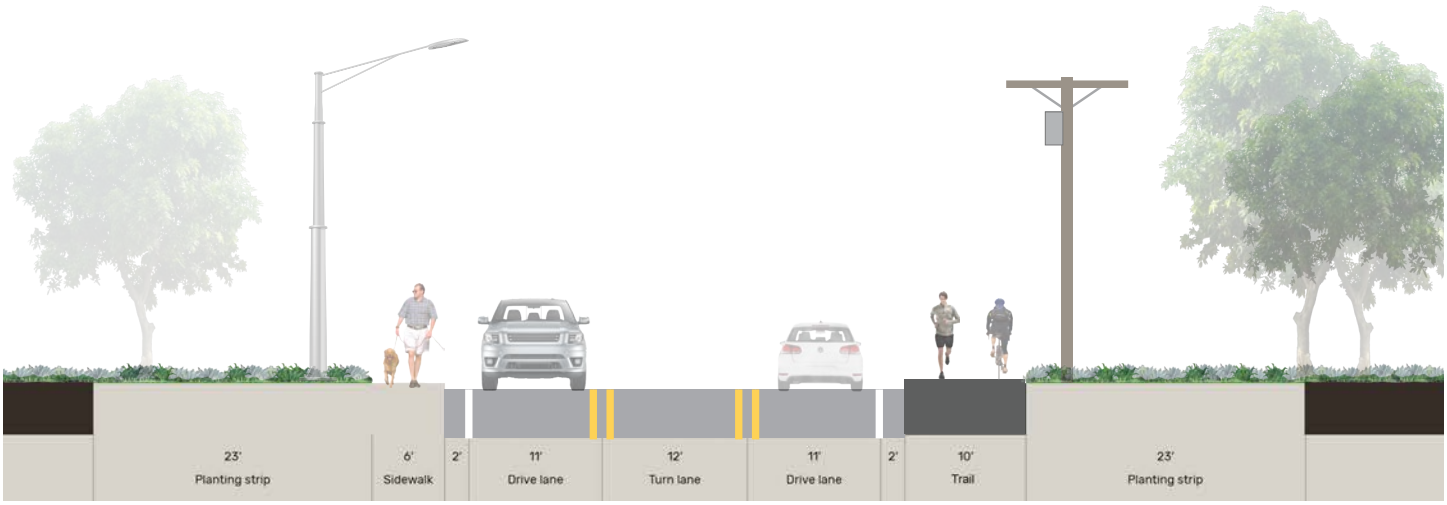
Below are typical sections that show the different elements and dimensions in facilities depending on the street type and context area.

EXISTING CROSS SECTION



Note: Measurements are approximate for visualization and do not include curbs.

IDEAL CROSS SECTION: TRAIL

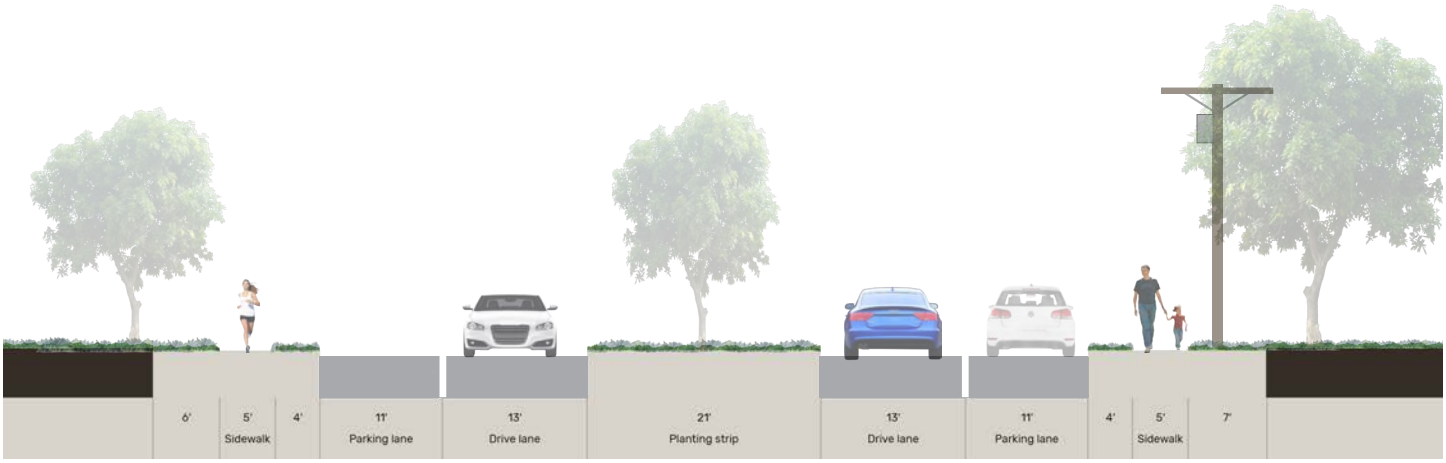


Note: Measurements are approximate for visualization and do not include curbs.

Langley Avenue Typical Sections

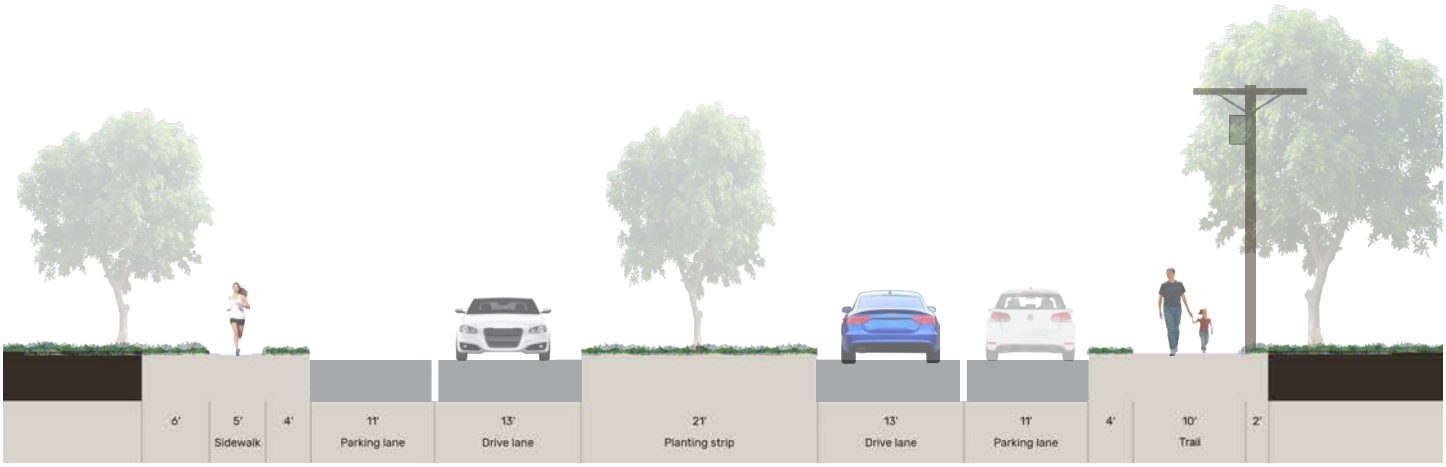
Below are typical sections that show the different elements and dimensions in facilities depending on the street type and context area.

EXISTING CROSS SECTION



Note: Measurements are approximate for visualization and do not include curbs.

IDEAL CROSS SECTION: TRAIL

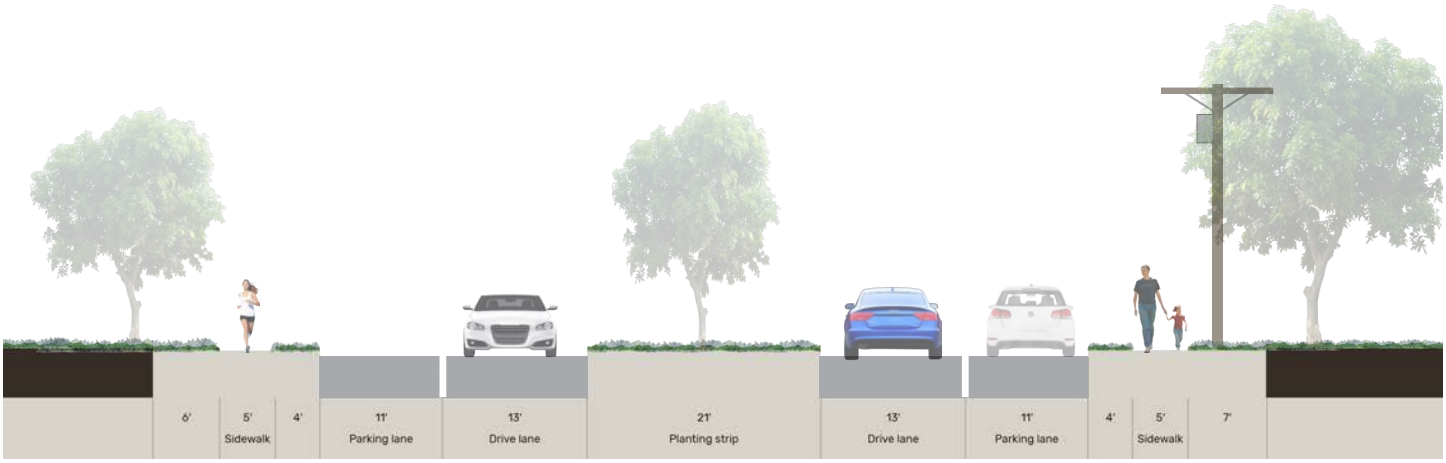


Note: Measurements are approximate for visualization and do not include curbs.

Langley Avenue Typical Sections

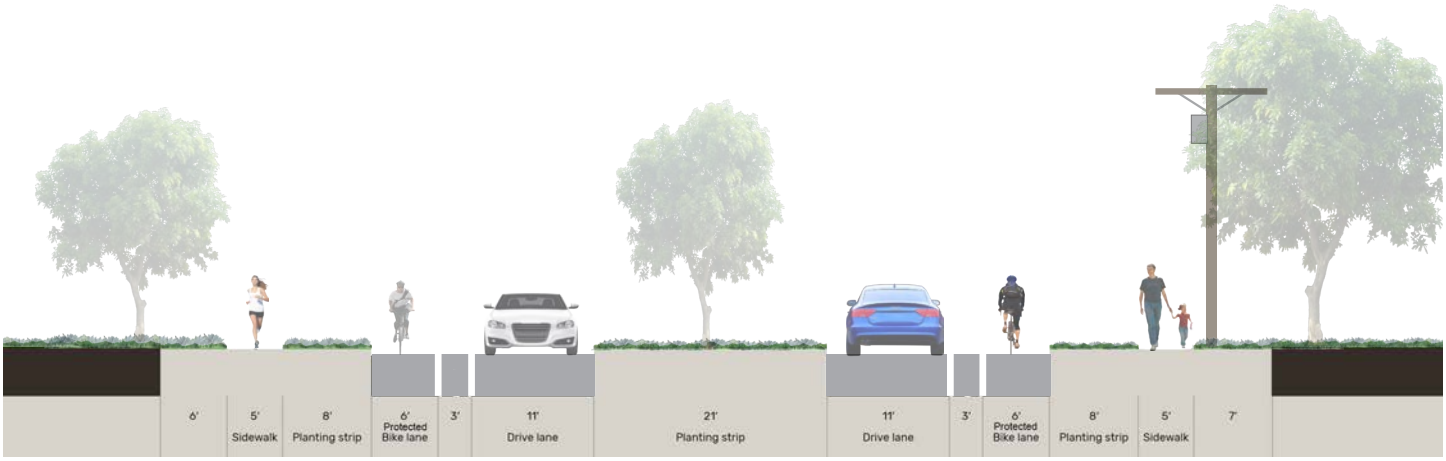
Below are typical sections that show the different elements and dimensions in facilities depending on the street type and context area.

EXISTING CROSS SECTION



Note: Measurements are approximate for visualization and do not include curbs.

IDEAL CROSS SECTION: PROTECTED BIKE LANES



Note: Measurements are approximate for visualization and do not include curbs.

Figure 11. Street Design Tools

Below is a summary of street elements typically appropriate for each street type. There are variations in different contexts - for example, on-street parking might be appropriate downtown versus in suburban areas.

STREET TYPE	Arterial	Collector	Local
Pedestrian			
Sidewalks	✓	✓	✓
Leading Pedestrian Intervals (LPIs)	✓	✓	✓
Pedestrian Lighting	✓	✓	✓
Woonerf	✗	✗	✓
Bicycle			
Shared Lane Markings	✗	✗*	✓
Neighborhood Greenway	✗	✗	✓
Bike Lane	✗*	✓	✓
Protected Bike Lane	✓	✓	✗
Multi-use Path	✓	✓	✗
Bike Boxes	✗	✓	✓
Intersections and Crossings			
High Emphasis Crosswalks	✓	✓	✓
Curb Extensions/Bulb Outs	✓	✓	✓
Curb Radii Reduction	✗[1]	✓	✓
Raised Intersection	✗	✗	✓
Rectangular Rapid Flashing Beacons (RRFBs)	✓	✓	✓
Pedestrian Hybrid Beacons (PHBs)	✓	✓	✗
Pedestrian Refuge Islands	✓	✓	✗
Mid-block Crossings	✓	✓	✓
Roundabout	✓	✓	✗
Neighborhood Traffic Circles	✗	✓	✓
Signal Progression	✓	✓	✗
Speed Management			
Reduce Speed Limit	✓	✓	✓
Lane Width Reduction	✓	✓	✓
Speed Hump/Table	✗	✗[1]	✓
Pinchpoints	✓[1]	✗[1]	✓
Chicanes	✓[1]	✓	✓
Medians	✓	✓	✓
Enhanced Landscaping/Street Trees	✓	✓	✓
On-street Parking	✗[1]	✓	✓
Lane Elimination	✓	✓	✗
Paint/Striping	✓	✓	✓

✗* May be implemented if right-of-way is constrained.

[1] Allowed in urban downtown contexts

Summary of Flexible Design Guidance and Other Resources

Engineers and planners follow established standards and guidelines to prepare designs for roadway projects. The following standards and guides, shown in the table below, currently form the basis of Complete Streets best practices and policy guidelines. Each of these resources provide guidance for a particular area of street design:

Organization/Legislation	Guidance
National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide (2nd Edition)	Bicycle facilities and intersection design
NACTO Designing for All Ages & Abilities	Bicycle facilities guidance
NACTO Transit Street Design Guide	Transit facility design
NACTO Urban Street Stormwater Guide	Green infrastructure integration
A Policy on Geometric Design of Highways and Streets (American Association of State High and Transportation Officials [AASHTO] Green Book)	Roadway design, including multimodal facilities
Manual on Uniform Traffic Control Devices (MUTCD)	Street striping, markings, signage
USDOT Achieving Multimodal Networks: Applying Design Flexibility & Reducing Conflicts	Multimodal network design
Americans with Disabilities Act (ADA) Standards for Accessible Design	Accessible street design
Institute of Transportation Engineers (ITE) Designing Walkable Urban Thoroughfares: A Context Sensitive Approach	Walkable street design
FDOT Design Manual (2023)	Design criteria for state roadways
FDOT Complete Streets	Complete Streets approach in Florida

3 Get The Crossings Right: Reduce Crossing Distances and Points of Conflict, and Prioritize Mid-block Crossings and Intersection Improvements

Intersections and crossings are places where vehicles and bicyclists and pedestrians intermingle. They are also where there are the most conflict points which can create safety concerns for those driving, walking, bicycling, or wheeling. These locations are also common places for pedestrian and bicycle crashes and, often times based on speed, can be fatal or cause injury. Some of these crashes include locations where there are currently no crossings but one may be needed. This principle aims to provide safer crossings and intersections by limiting the amount of time a pedestrian is in the roadway, forcing vehicles to drive slower, and adding more crossing opportunities.

Top Priorities

Use best practices to change policies to provide:

- Focus at key locations **where ATP network improvements** are contemplated and at **High Injury network locations**
- Reduce pavement for large turns unless needed for trucks
- Mid-block crossings that are protected
- Lighting at intersections
- Keep signals simple and timed for maximum desired operating speeds and bicyclists.
- Replace signals when possible with all-way stops and analyze roundabouts or traffic circles
- Install pushbutton-integrated Accessible Pedestrian Signals

FDOT Guidance

Below is guidance from FDOT related to crossing distances. When crossing location distances are lengthy, those walking naturally cross mid-block. Additionally, mid-block crossings should be taken into consideration at key locations.

FDOT Crossing Distance Policy and Context Classification

Context Classification	Target Maximum Spacing (feet)
C1 Natural and C2 Rural	As needed based on pedestrian generators
C3R - Suburban Residential	Within 300 feet of pedestrian generator or attractor; OR no more than 0.50 miles
C3C - Suburban Commercial	Within 300 feet of pedestrian generator or attractor; OR no more than 0.25 miles
C4 Urban General	250 - 660 feet
C5 Urban Center and C6 Urban Core	250 - 500 feet

Curb Radii Guidance

Below is guidance for reducing curb radii on various roadway types and context.

Roadway Type and Curb Radii

Roadway Type	Land Use Context	Actual Curb Radius	Effective Curb Radius
Principal and Minor Arterials	Urban Center/Core	15′	20′
	Suburban/Rural Town	25′	30′
	All intersection corners without vehicle turns	5′	-
Major Collector	Urban Center/Core	15′	20′
	Suburban/Rural Town	25′	30′
	Rural/Natural	25′	40′
	All intersection corners without vehicle turns	5′	-
Minor Collector	Urban Center/Core	15′	25′
	Suburban/Rural Town	25′	30′
	Rural/Natural	25′	30′
	All intersection corners without vehicle turns	5′	-
Local Roads	Urban Center/Core	15′	20′
	Suburban/Rural Town	15′	20′
	Rural/Natural	15′	20′
	All intersection corners without vehicle turns	5′	-

High Visibility Crosswalks

Benefits:

- Clear and noticeable to oncoming vehicles which creates a safer environment for pedestrians to cross

Costs:

- Low

QUICK-BUILD PROJECT

Standard Crosswalk Signage

Benefits:

- Emphasizes and alerts drivers to the presence of a crosswalk
- Directs pedestrians to cross at appropriate and safe locations

Costs:

- Low

QUICK-BUILD PROJECT

Image Source: City of Saanich

Leading Pedestrian Intervals (LPIs)

Benefits:

- The pedestrians walk signal turns prior to the parallel street signal turning green
- Pedestrians are more visible in the crosswalks for turning vehicles
- Best used in high pedestrian and high vehicle traffic areas

Costs:

- Low

QUICK-BUILD PROJECT

Image Source: MnDOT

Accessible Pedestrian Signals (APS)

Benefits:

- Devices affixed to pedestrian signal poles to assist pedestrians who are blind or low vision in crossing the street.
- APSs are wired to a pedestrian signal and send audible and vibrotactile indications when pedestrians push a button installed at the crosswalk.

Costs:

- Low

QUICK-BUILD PROJECT

Curb Radii Reduction

Benefits:

- Minimizes the size of a corner radius and improves safety for pedestrians by slowing down the speed at which a vehicle can make a turn
- Reducing the crossing distance of the intersection
- Can be implemented with paint, delineators, or concrete

Costs:

- Low to Moderate *(drainage and full intersection improvements may affect costs)*

QUICK-BUILD PROJECT

Raised Crosswalk

Benefits:

- Reinforce slow speeds and encourage motorists to yield to pedestrians
- Best suited for local streets with slower speeds and high pedestrian activity

Costs:

- Moderate

Image Source: FHWA

Mid-Block Crossing

Benefits:

- Designated crossing areas that provide pedestrians a safe place to cross the street between intersections

Costs:

- Low to Moderate

Image Source: City of Cambridge

Raised Intersections

Benefits:

- Reinforce slow speeds and encourage motorists to yield to pedestrians
- Best suited for minor intersections

Costs:

- Moderate

Rectangular Rapid Flashing Beacons (RRFBs)

Benefits:

- Enhance safety by increasing motorist awareness
- Directs vehicles to stop for pedestrians crossing the street

Costs:

- Moderate

Image Source: FHWA

Pedestrian Hybrid Beacons (PHBs)

Benefits:

- Enhance safety by increasing motorist awareness
- Directs vehicles to stop for pedestrians crossing the street

Costs:

- High

Curb Extensions

Benefits:

- Visually and physically narrow the roadway
- Creates safer and shorter crossing distances while increasing available space for pedestrians and street furniture
- Can be implemented with paint, delineators, or concrete

Costs:

- Low to Moderate

QUICK-BUILD PROJECT

Neighborhood Traffic Circles

Benefits:

- Lowers speeds at minor intersection crossings
- Ideal for uncontrolled intersections
- May be designed with painted crossings markings or raised islands
- Best implemented in conjunction with landscaping to further calm traffic
- Best suited for low volume, residential streets

Costs:

- Low to moderate

Signal Progression

Benefits:

- Decreased cut-through traffic
- Reduces traveler frustration
- Can be used to lower speeds also making it more efficient for bicyclists
- Improves transit performance

Costs:

- Low

QUICK-BUILD PROJECT

Pedestrian Refuge Island

Benefits:

- Provide pedestrians with a safe place to stop halfway through an intersection or when crossing a busy street
- Particularly useful for elderly residents and people who are disabled who may require more time to cross large intersections

Costs:

- Moderate

Roundabouts

Benefits:

- Significantly reduces the number of conflict points compared to traditional intersections
- Promotes lower speeds and traffic calming
- Improves operational performance
- Can be used in a wide range of contexts
- Sustainable alternative to signalized intersections because they function without electricity, reduce congestion and pollution from idling cars, and provide opportunities for Florida-friendly landscaping

Costs:

- Moderate to High

Intersection Spotlight

Ten high-crash intersections within the City were examined to determine which tools for traffic calming and safety can be implemented. The ten intersection are depicted in **Figure 7**, on the following pages with potential improvement projects.

Location: Barrancas Avenue & W Main Street
Jurisdiction: City & City

SE down Barrancas. Source: Google Maps

List of Improvements:

A. Reduce travel area with gore striping and construct ADA compliant curb ramps
B. Add high-emphasis crosswalks
C. Fill sidewalk gap
D. Construct pedestrian refuge island
E. Add pedestrian arm oriented to the sidewalk
F. Conduct a study to examine closing S K Street to traffic between Zarragossa Street and Barrancas Avenue *(long-term)*
G. Add retroreflective backplates to all signal heads *(not shown)*
H. Re-time signal for pedestrian crossing *(not shown)*

Future Bike Network

Shared Street/Neighborhood Greenway
Trail/Protected Bicycle Lane
Potential Bicycle Facility to be Determined

Location: Barrancas Avenue & W Garden Street
Jurisdiction: City & State

E down Garden. Source: Google Maps

List of Improvements:

A. Construct ADA compliant curb ramps
B. Extend curb with gore striping
C. Eliminate unused driveway openings
D. Conduct a study to examine closing Barrancas Avenue to traffic from S E Street to S D Street *(long-term)*
E. Re-stripe all crosswalks with high-emphasis crosswalks *(not shown)*
F. Add retroreflective backplates to all signal heads *(not shown)*
G. Conduct an ICE study and consider a potential roundabout *(not shown, long-term)*

Future Bike Network

Shared Street/Neighborhood Greenway
Trail/Protected Bicycle Lane
Potential Bicycle Facility to be Determined

Location: MLK Drive & E Blount Street
Jurisdiction: State & City

W down Blount. Source: Google Maps

List of Improvements:

A. Extend curb at the intersection to create bulb-outs with ADA compliant curb ramps
B. Replace the painted median on the west side with a concrete median
C. Plant street trees
D. Add retroreflective backplates to all signal heads *(not shown)*
E. Re-stripe all crosswalks with high-emphasis crosswalks *(not shown)*

Future Bike Network

Shared Street/Neighborhood Greenway
Trail/Protected Bicycle Lane
Potential Bicycle Facility to be Determined

Location: N Palafox Street & W Wright Street
Jurisdiction: City & City
List of Improvements:

A. Straighten crosswalk
B. Construct median or pedestrian refuge island
C. Extend curb with paint, delineators, or concrete
D. Add high-emphasis crosswalks
E. Add green paint and/or flex posts to existing bike lane
F. Add a hardened centerline
G. Conduct a study for a mid-block crossing *(long-term)*
H. Reorient parking for curbside angled parking, two central travel lanes, and a protected bike lane *(long-term)*
I. Add retroreflective backplates to all signal heads *(not shown)*
J. Add detectable warnings to all curb ramps *(not shown)*
K. Conduct study for potential roundabout (*not shown)*

Future Bike Network

Shared Street/Neighborhood Greenway
Trail/Protected Bicycle Lane
Potential Bicycle Facility to be Determined

E down E Wright. Source: Google Maps

Location: N 9th Avenue & E Gregory Street
Jurisdiction: State & State

E down Gregory. Source: Google Maps

List of Improvements:

A. Examine access management at Shell (400 E Gregory Street) and Whataburger (417 E Gregory Street)
B. Add green paint and/or flex posts to existing bike lane
C. Add retroreflective backplates on all signal heads *(not shown)*
D. Re-stripe all crosswalks with high-emphasis crosswalks *(not shown)*
E. Re-stripe roadway and worn pavement markings *(not shown)*
F. Conduct a lane re-purposing study on E Gregory Street *(not shown, long-term)*

Future Bike Network

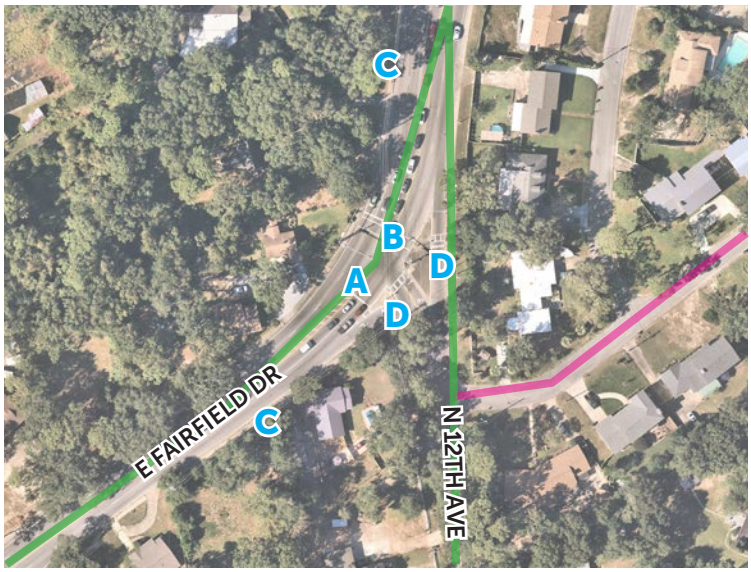
Shared Street/Neighborhood Greenway
Trail/Protected Bicycle Lane
Potential Bicycle Facility to be Determined

Location: N 12th Avenue & E Fairfield Drive
Jurisdiction: City & City

S down Fairfield. Source: Google Maps

List of Improvements:

A. Replace the painted median on the south side of the intersection with a concrete median
B. Re-stripe crosswalk with high-emphasis crosswalk
C. Install speed feedback and/or "Curve Ahead" signage (W1-2)
D. Conduct a lane re-purposing study to determine if either slip lane can be removed *(long-term)*
E. Add retroreflective backplates to all signal heads *(not shown)*
F. Improve lighting throughout the intersection *(not shown)*



Future Bike Network

Shared Street/Neighborhood Greenway
Trail/Protected Bicycle Lane
Potential Bicycle Facility to be Determined

Location: N 12th Avenue & E Hatton Street
Jurisdiction: City & City

S down 12th. Source: Google Maps

List of Improvements:

A. Construct ADA compliant curb ramps
B. Plant street trees
C. Add high-emphasis crosswalk striping *(not shown)*
D. Conduct a study for a four-way stop or mid-block crossing on N 12th Avenue *(not shown)*
E. Conduct a neighborhood traffic circle or mini-roundabout feasibility study *(long-term, not shown)*

Future Bike Network

Shared Street/Neighborhood Greenway
Trail/Protected Bicycle Lane
Potential Bicycle Facility to be Determined

Location: N 14th Avenue & E Gregory Street

E down Gregory. Source: Google Maps

List of Improvements:

A. Add high-emphasis crosswalk striping
B. Conduct a mid-block crossing study near Another Broken Egg Cafe (721 E Gregory Street) and construct Pedestrian Hybrid Beacons (PHBs)
C. Conduct signal warrant analysis
D. Add pedestrian-scale lighting throughout the intersection *(not shown)*
E. Conduct a lane re-purposing study on E Gregory Street *(long-term, not shown)*

Future Bike Network

Shared Street/Neighborhood Greenway
Trail/Protected Bicycle Lane
Potential Bicycle Facility to be Determined

Location: East of 2021 E Cervantes Street
Jurisdiction: State

E down Cervantes. Source: Google Maps

List of Improvements:

A. Add signage: "Share the Road With Bikes" (W16-1), "Bicycle Route" (M1-8), or "Bike Lane Ends" (R3-17bP)
B. Add green paint and/or flex posts to existing bike lane

Future Bike Network

Shared Street/Neighborhood Greenway
Trail/Protected Bicycle Lane
Potential Bicycle Facility to be Determined

Location: Creighton Road & Keating Road, Creighton Road & Hilltop Road
Jurisdiction: State & City (both)
List of Improvements:

A. Extend curbs at Keating Road with paint, delineators, or concrete
B. Fill sidewalk gap
C. Add high-emphasis crosswalk
D. Restripe all crosswalks at Keating Road with high-emphasis crosswalks
E. Extend bike lanes through both intersections with skip lane markings
F. Add "Intersection Warning" signage (W2-1)
G. Install speed feedback signs
H. Conduct a mid-block crossing study near Hilltop Road *(long-term)*
I. Conduct a neighborhood traffic circle or mini-roudabout feasibility study at Keating Road *(long-term)*
J. Add green paint and/or flex posts to existing bike lanes *(not shown)*
K. Conduct a lighting analysis of Creighton Road *(not shown)*

Future Bike Network

Shared Street/Neighborhood Greenway
Trail/Protected Bicycle Lane
Potential Bicycle Facility to be Determined

Creighton & Keating intersection, S down Creighton. Source: Google Maps

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4 Build The Bicycle Network: Connect Key Destinations And Filling Gaps To Provide Economic Opportunity For All

A key strategic recommendation for the future is to develop a connected bicycle network. The priority is to focus on connecting destinations and places of interest. The network should build onto the other recommendations in this section - safe streets and intersections. Where speeds are higher (greater than 25 miles per hour) or volumes are higher (greater than 3,000 to 5,000 vehicles per day generally) bike facilities should buffered and separated facilities. Ideally, bike facilities should be physically protected. For slower speed and low stress streets, neighborhood greenways/shared streets or bicycle boulevards can be applied. For streets higher than 25 miles per hour, bicycle facilities should be buffered and separated and protected whenever possible.

Top Priorities

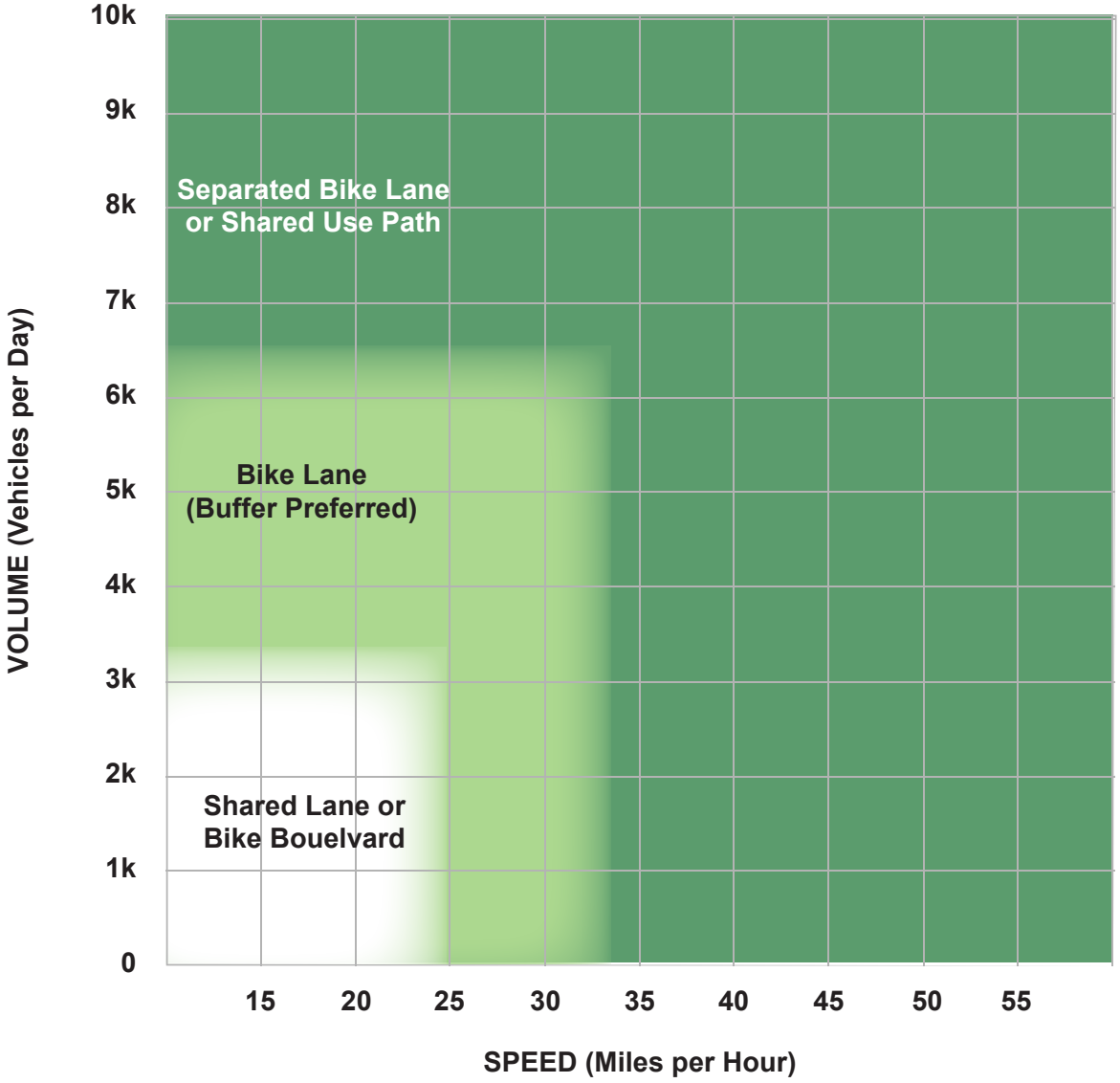
Use best practices to change policies to provide:

- **Overall Network development** – focus on direct access to destinations and points of interest, and a seamless connected network for all ages and abilities (including wayfinding and signage)
- **Separation is key** - Implement protected bike lanes with permanent separations such as barriers, curbs, planters, landscaping, or parked vehicles (where bike facilities are on higher-speed roadways) and continue to expand bicycle connections with neighborhood greenways on slower-speed streets.
- **Focus on pinch points/transitions** that cause safety concerns (e.g. Cervantes, Langley, etc.) where bicycle lanes abruptly stop or the streets gets narrower
- Improve **crossings at intersections** and **include lighting**

Bicycle Facilities based on Traffic Volume and Speed

Different streets require different bicycle facilities. The greater the vehicles speeds and greater the vehicle volumes, the more important it is to provide dedicated, separated bicycle facilities.

Figure 12. Bicycle Facility based on Traffic Volume and Speed



Source: FHWA

Shared Lane Markings

Benefits:

- Alerts drivers to the potential presence of bicyclists and indicate where bicyclists should position themselves
- Best used on low volume, traffic calmed streets

Costs:

- Low

QUICK-BUILD PROJECT

Bicycle Lane

Benefits:

- Creates a dedicated space for bicyclists within the roadway
- Can be constructed with green paint to create further awareness

Costs:

- Low to Moderate

Buffered Bicycle Lane

Benefits:

- Safer than typical painted bicycle lanes
- The use of additional paint creates a larger buffer between bicyclist and vehicle traffic

Costs:

- Low

Image Source: Rural Design Guide

Neighborhood Greenways/Shared Streets

Description/Benefits:

- Streets with low vehicle volumes and speeds, designated and designed for bicycles
- Includes speed management design techniques, and wayfinding and signage for bicyclists
- Alerts drivers to the potential presence of bicyclists and indicate where bicyclists should position themselves
- Best used on low volume, traffic calmed streets

Costs:

- Low to Medium

Separated Bicycle Lane

Benefits:

- Safer than typical painted bicycle lanes
- The use of landscaping, raised curbs, bollards, planters, and other methods create a protective barrier for bicyclists from vehicle traffic
- Protected bicycle lanes improve safety and encourage more people to bike to their destinations
- Other options for protected bicycle lanes include: Zicla Zipper, raised separated bicycle lanes, and two-way cycle tracks

Costs:

- Moderate to High

Multi-Use Trail

Benefits:

- Separated facility designed to accommodate the movement of pedestrians and bicyclists while providing maximum comfort and safety
- Promotes recreational activities and could be a major scenic feature depending on the location and use of materials

Costs:

- Moderate to High

Bicycle Street Furniture

Benefits:

- Encourage more people to bike to their destinations
- Increases convenience for bicyclists

Costs:

- Low

QUICK-BUILD PROJECT

Intersection Bicycle Boxes

Benefits:

- Provide cyclists with safe and clear access to the intersection ahead

Costs:

- Low

QUICK-BUILD PROJECT

Painted Bicycle Lanes

Benefits:

- Identifies a clear path and zone for bicycle lanes
- Alerts drivers to the presence of a bicycle facility
- Best used at intersections, intersection approaches, and large driveway openings

Costs:

- Low

QUICK-BUILD PROJECT

On-street Parking Bicycle Buffer

Benefits:

- Provide a protected buffer between bicyclists and vehicle

Costs:

- Low

QUICK-BUILD PROJECT

Bicycle Facilities Target and Constrained Widths

The goal is to add or improve bicycle facilities within existing right-of-ways (ROW) and create a baseline standard of facility widths. The target widths are the dimensions that should be followed throughout the City with ROW permitting. Some streets and ROW may be more constrained than others which is why there is a separate column of bicycle facilities standard widths for these conditions.

Bicycle Facility Target and Constrained Widths

Element	Target		Constrained	
	Lane	Buffer	Lane	Buffer
Separated Bicycle Lane	6′	2′	5′	2′
Two-way Separated Bicycle Lanes	12′	3′	8′	3′
Raised Separated Bicycle Lane	6.5′	1′ for vertical element	4′	1′ for vertical element 3′ (next to parked cars)
Two-way Median Bicycle Lanes	12′	6′ (3′ for each side)	8′	6 (3′ for each side)
Buffered Bicycle Lane	5′	3′	-	-
Conventional Bicycle Lane	6′	-	4′	-
Contra-Flow Bicycle Lane	6′	-	4′	-

Big Ideas

Smaller Infrastructure Projects

- Prioritize one east/west bicycle route north of Cervantes Street
    - Consider Gonzalez Street
- Prioritize one east/west bicycle route south of Cervantes Street
    - Jackson Street or La Rua Street or Belmont Street
- Make intersection and mid-block crossings improvements to set the foundation where on the High Injury Network or on streets on the ATP network recommendations

Larger Infrastructure Projects

- Build a full "spine" multi-use trail under I-110 that connects Hollice T Williams to the waterfront
- Implement past waterfront plans to create a downtown east/west multi-use trail - provide connections to the surrounding neighborhoods
- Advance other larger infrastructure trails into the Long Range Transportation Plan
    - Scenic Highway/Bluffline, Complete LEAP Trail
    - Multi-use trail along Spanish Trail
- Other Priorities: Coordinate regional connections, create wayfinding system (consider theming and digital attraction platform), expand bicycle racks, expand educational efforts

Figure 13. Bicycle and Pedestrian Future Network Opportunities Map

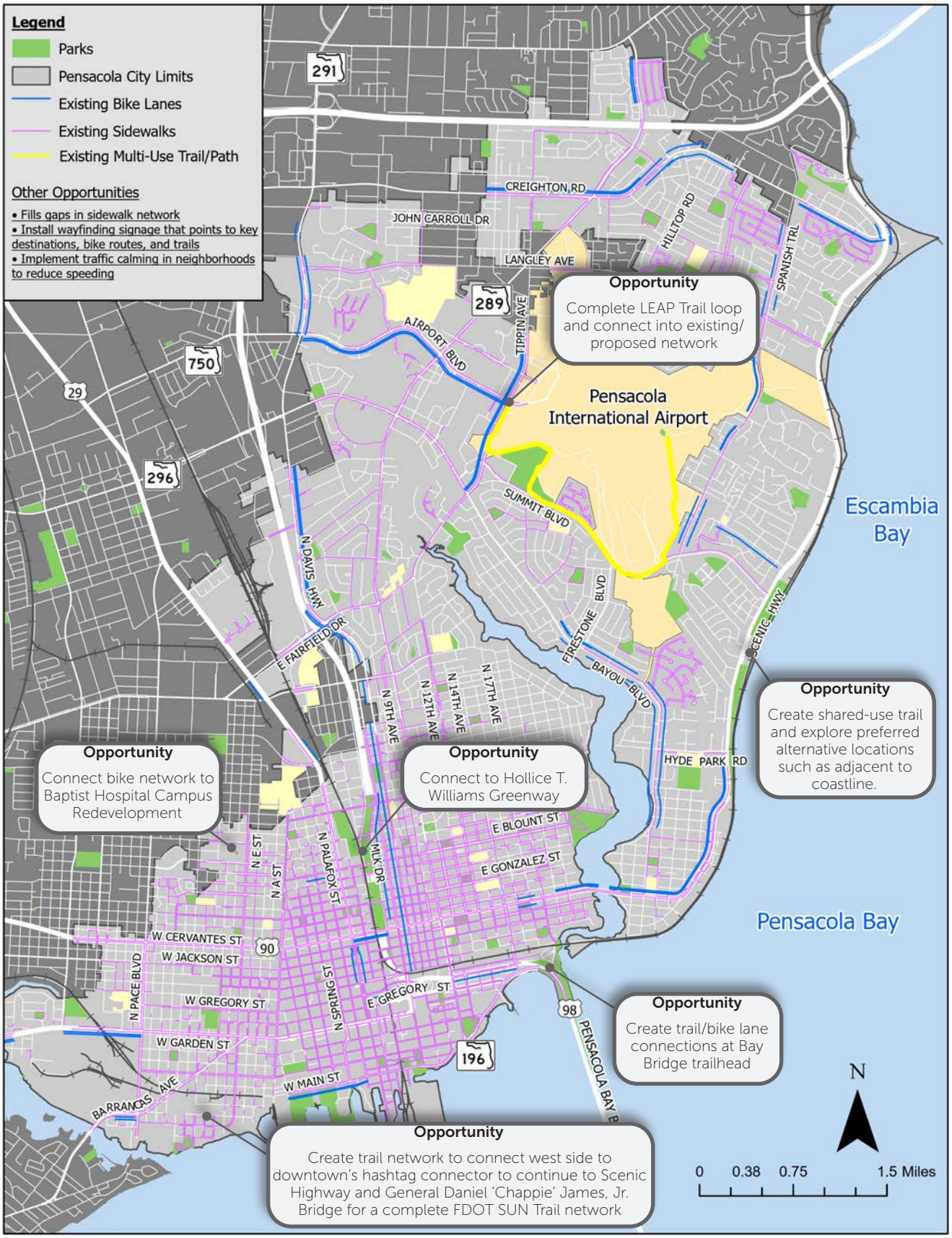
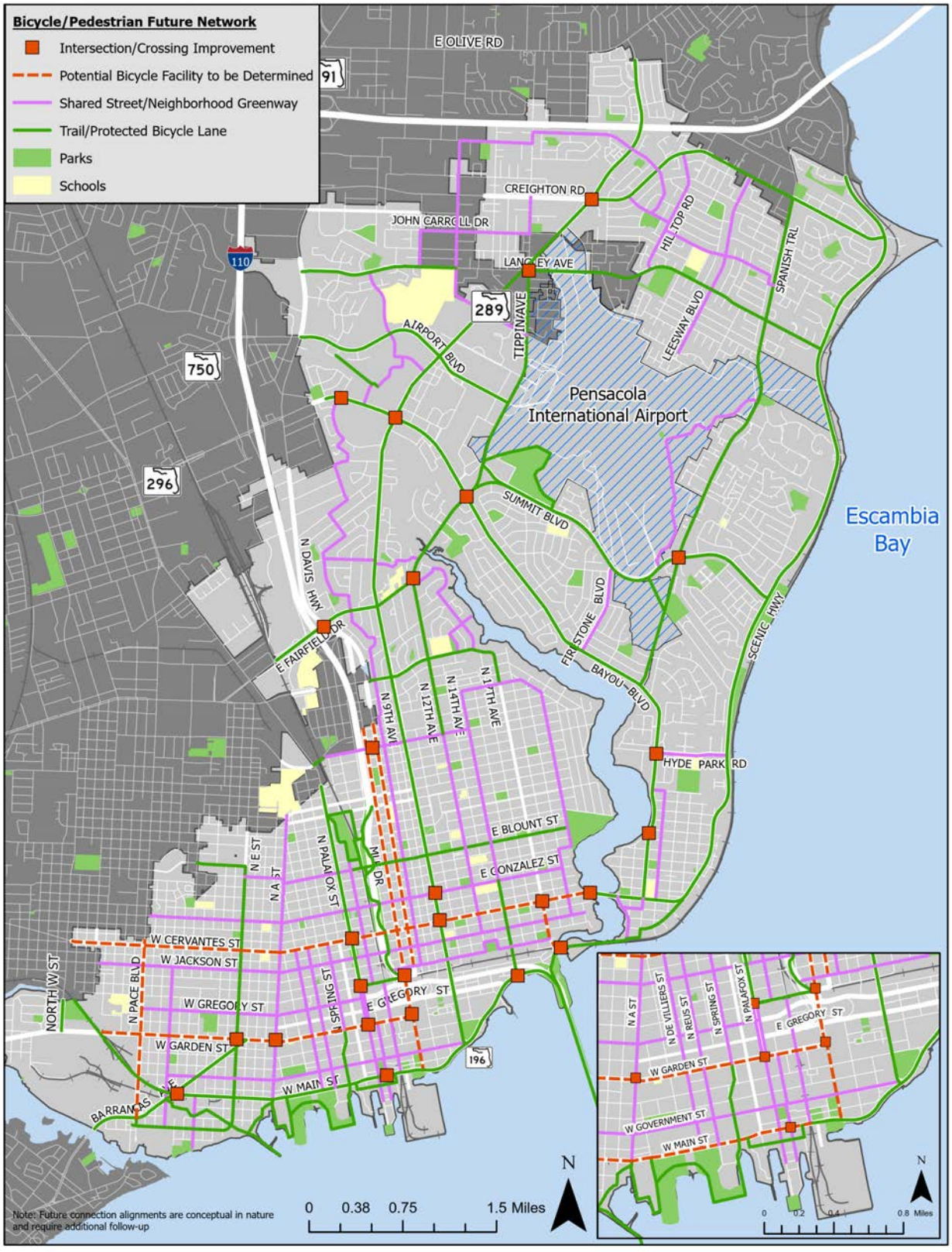


Figure 14. Bicycle and Pedestrian Future Network Map

A full future network map was developed based off of analysis and public engagement. The map groups trails and protected/separated facilities (could include a range of designs) and neighborhood greenways that are on-street facilities.



5 Create a Comfortable and Safe Walk

There is significant opportunity to improve the pedestrian network and provide connections from neighborhoods to community amenities. Almost all neighborhoods in the City are within a five-minute walk to a park or school. Proximity to these locations paired with a good sidewalk network encourages more walking and safer environments for people who walk. There are funding opportunities outlined in the next section. Strategies to consider are found on the next few pages.

Top Priorities

Use best practices to change policies to provide:

- Separate sidewalks from the streets where posted speeds are greater than 25 mph
- Safe crossings (more on the following pages)
- Fill in sidewalk gaps near schools and parks

Sidewalks

Benefits:

- Improve neighborhood connectivity
- Promote recreation and active transportation
- Improve safety for all roadway users

Typical Costs:

- Moderate to High

Wayfinding

Benefits:

- Directs residents and visitors to districts and destinations while encouraging walking and bicycling

Typical Costs:

- Low to Moderate

QUICK-BUILD PROJECT

Pedestrian Scale Lighting

Benefits:

- The quality, placement, and sufficiency of lighting help create safe environments for motorists and pedestrians

Typical Costs:

- Moderate

ADA Compliant Curb Ramps

Benefits:

- ADA-compliant curb ramps slope gently into the roadway, making it possible for people using a wheelchair, scooter, walker, or other mobility devices to travel safely between the sidewalk and the roadway

Costs:

- Low to Moderate

Image Source: NACTO

Woonerf

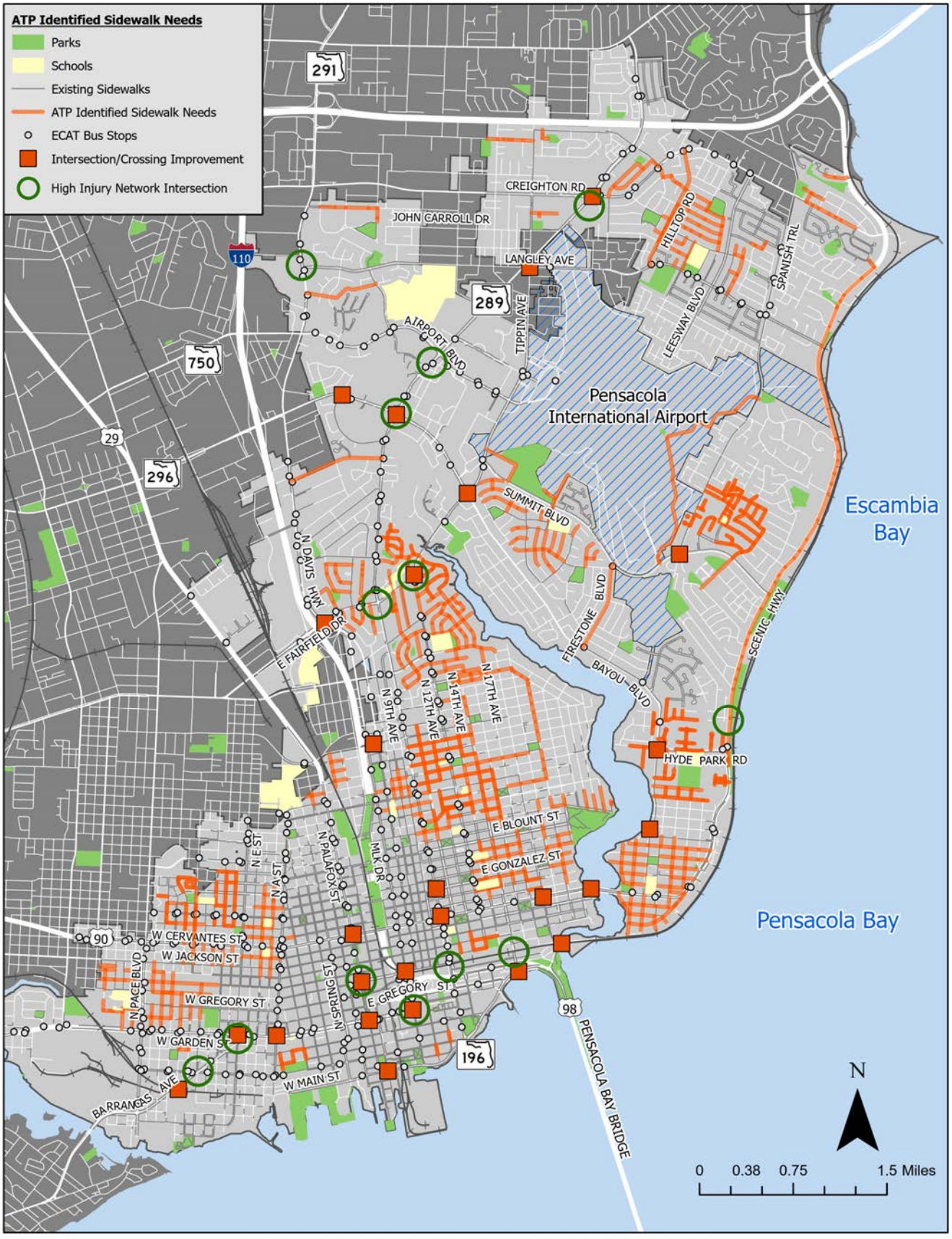
Benefits:

- Lower speed streets oriented for pedestrians and sometimes closed to vehicle traffic
- Opportunity for public space

Costs:

- Moderate to High

Figure 15. Sidewalk Connections Map



Prioritizing the ATP Network

A project priority methodology was developed to help provide guidance on priorities for developing a network as well as top priority potential projects. The criteria used to prioritize projects were based off of the steering committee meetings, stakeholders meetings, and community engagement activities. The criteria and top priorities projects for the ATP network should be monitored and reviewed over time for changing conditions. Additional review, feasibility, and engagement will need to be required when programming projects.

Crossings and Intersections

Crossing and intersection improvements were identified from the safety analysis (including the High Injury Network), locations identified by the public (those that rose to the top with multiple mentions – there are additional intersections that could be identified in the future), as well as site visits.

Bicycle Facilities

Bicycle facilities including multi-use trails/ separated and protected bicycle facilities as well as neighborhood greenways/bicycle boulevards were prioritized based on a number of criteria and related to the guiding principles shown in the table on the following page. The prioritized projects were grouped by tier as follows: Tier 1 (High/ Initial Priorities), Tier 2 (Medium/Other Priorities that are typically more complex), and Tier 3 (Low/ Visionary Priorities that may be longer-term and will include coordination from other agencies). The recommended projects are planning-level recommendations and will need to be further developed through the design process. For example, a corridor with a sidewalk project may evolve to a trail over time as projects are implemented.

Decision Process

1. Review
The context and desired type of improvement (from design guidance/and feasibility in more detail)

- Context Area
- Street Type
- Street Ownership
- Desired Facility
- Feasibility

2. Engage
Within the community and stakeholders

3. Explore Possibilities
If not possible (in short-term) or desired time frame, look at parallel route or add on-street facilities

Pedestrian Facilities

Pedestrian facilities - specifically sidewalks - were identified near major destinations and points of interest including schools, parks, and transit and in higher activity areas like Pensacola State College and downtown. In addition, sidewalk gaps near the High Injury Network intersections and from the community engagement were included as priorities. The City of Pensacola could continue to review these, along with citizen requests, with other projects and during budgeting.

Prioritization Criteria

For the prioritization mapping of the future network projects, criteria was based around four guiding principles: Safety, Connectivity, Accessibility, and Community Support. The guiding principles were developed in cooperation with the steering committee and through public input. When evaluating safety, various types of crashes were accounted for that fell within a 100ft buffer along the proposed project location. Additional data was gathered to evaluate whether the proposed project will fill a gap in the pedestrian transportation network, connects pedestrians to major destinations, or whether the proposed project will have significant utility or right of way impacts. The United States Department of Transportation's "Equitable Transportation Community (ETC)" boundary was utilized to further understand if a project would provide options and accessibility to an under-served area. Community input was gathered from several public meetings and web based form submittals to understand if a project aligns with public and stakeholder input. The prioritization was developed to help guide ranking of potential future projects. Additional considerations should be included over time based on changing conditions including a review of feasibility of projects, the continuation of projects, and where there are opportunities with resurfacing or other maintenance projects.

Prioritization Criteria

Guiding Principles	Prioritization Criteria
Put Safety First	**Safety:** High crash areas (pedestrian, bicyclists, vehicular), dark conditions, noted safety concern **Traffic Calming/Speed Reduction:** Difference between posted and desired speeds
Connect People and Places	**Connectivity:** Fills a gap or barrier in the network, connects to destinations
Access for All	Project is identified in a disadvantaged area, provides options
Add Mobility Options	**Community Support:** Aligns with public and stakeholder feedback, included in other plans/ projects

Figure 16. Neighborhood Greenway Priority Map

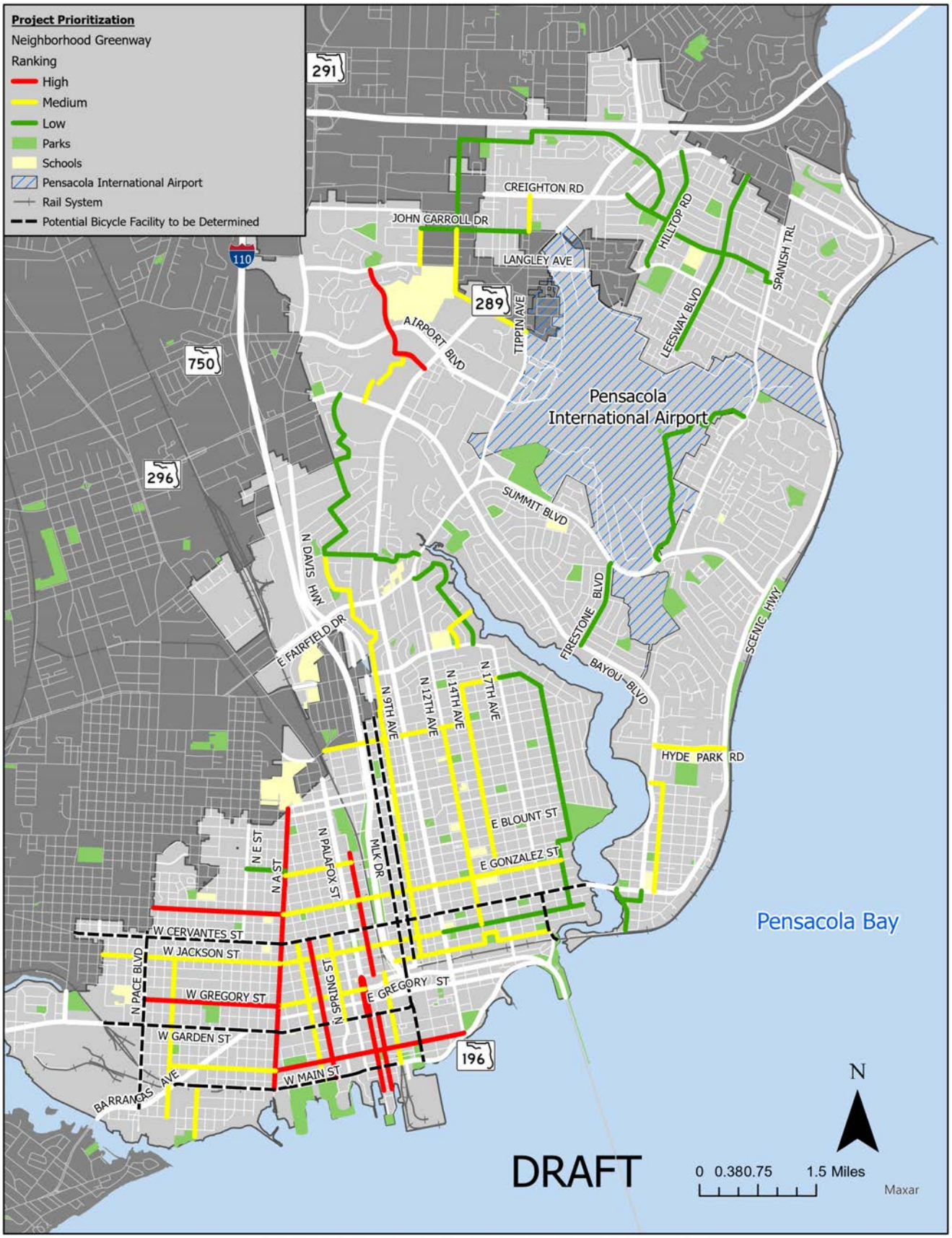


Figure 17. Trail/Protected Bike Lane Priority Map

"To make a good city, you need good streets"

-Victor Dover

SECTION 4
HOW ARE WE GOING TO GET THERE?

Actions for Implementation

Implementing the approaches and recommendations from the previous sections are vital to continue the momentum of creating a connected and comfortable active transportation network. This section includes actions for governmental agencies that own our streets (City departments, Escambia County, ECAT, and the FDOT) including others that may impact changes to our streets such as developers, other agencies, or the community. The call is to create a connected network of safe streets for everyone of all ages and abilities.

The action plan outlined in this section is a blueprint to ensure that the active transportation vision and guiding principles are fully implemented throughout the City and becomes a foundational part of all projects moving forward.

The actions for implementation are grouped into four main areas:

1

Update Policies and Regulations – especially the Land Development Code to implement recommendations

2

Leverage Quick-Build and Tactical Projects

3

Partner to implement and promote the active transportation network

4

Seek funding and grant opportunities

This section includes general timing for the actions including:

CONTINUOUS

IMMEDIATE: 0-1 YEARS

SHORT-TERM: 0-3 YEARS

MID-TERM: 4-6 YEARS

LONG-TERM: 6+ YEARS

1. Update Policies and the Regulations

A key step for implementation is for the City to continue to modernize and coordinate policies and regulations related to active transportation. Updating policies - and in particular the Land Development Code - are vital to make sure the recommendations can be implemented in conjunction with future changes to streets.

Policies and Regulations Actions

Action No.	Action	Description	Responsible Parties	Timing
1.01	Adopt a Vision Zero Policy	An adoption of an ordinance will make it clear that safety is paramount and not one death in our City is acceptable	City of Pensacola	**Immediate**
1.02	Update the Land Development Code and Standards to Add Authority to ATP	Create technical design standards/manual to include flexible design guidance and typical cross sections, bicycle facility, pedestrian, and intersection guidance Apply Form-Based Code standards to include walkability, lighting, urban design standards (consider areas near the Civic Center and commercial areas in Northeast Pensacola and areas east of downtown first) Update to include information from flexible design guidance and FDOT Design Manual on speed management, lane widths, bicycle facilities, sidewalks, landscaping (shade), lighting, and intersections Update to include bicycle parking and storage requirements for new developments Explore strategies and tools like Transportation Demand Management, Concurrency, Mobility Fees, etc.	City of Pensacola	**Short-term**
1.03	Develop an Active Transportation Plan Checklist and Procedures	Create a checklist to use during the project development phase and interdepartmental review process to ensure that all projects within the public right-of-way comply with the intent of the ATP Utilize with roadway projects and for major site plans, and assign staff to utilize with roadways projects and site plan review for multimodal opportunities and compliance with the ATP	City of Pensacola	**Short-term**
1.04	Update the Comprehensive Plan	Update policies to incorporate ATP guiding principles including measures from the ATP beyond Auto Level of Services, context classification, and focus on safe speeds	City of Pensacola	**Short-term**
1.05	Monitor and Fine-tune	Review how policies, regulations, procedures are working and update as appropriate. Create a dashboard to monitor guiding principle measurables	City of Pensacola	**Short-term** to **Mid-term**

2. Leverage Quick-Build and Tactical Projects

Implementing the ATP network may require re-allocating existing roadway space. The flexible design guidance displays modal priorities with the understanding that streets have different users. Some streets in the City have little auto traffic compared to what they were designed to carry. These streets present an opportunity to provide options and economic vitality. The Potential Lane Repurposing map, **Figure 18**, identifies roads within the City where some vehicle travel lanes could be removed or repurposed to build a connected network for other modes of travel or to meet other ATP goals such as speed reduction. Each project that may involve lane repurposing would need to include further study, targeted public involvement, and coordination with regional stakeholders such as Escambia County and the FDOT.

Leverage Quick-Build and Tactical Projects Actions

Actions No.	Action	Description	Responsible Parties	Timing
2.01	Enact temporary pop-up or demonstrations that assess/lead to quick-build projects	Quick build projects are planned with the expectation that the design may undergo changes in the future with minimal investment Quick build projects fit between pop-up projects and capital projects. Pilot projects test solutions before a significant investment is required. Interim build projects provide the benefits much earlier than otherwise would be available	City of Pensacola	**Continuous**
2.02	Leverage opportunities for quick-builds	Examine the City's roadways to determine which lanes (**Figure 18**) may be repurposed to re-allocate space for other facilities which could include space for pedestrians, bicyclists, and/or vehicles (improvements include additional studies and coordination as needed) Tie in quick builds with 3R (resurfacing, restoration, and rehabilitation) or maintenance projects	City of Pensacola	**Continuous**
2.03	Form a quick-build team	With City staff, include the community on tactical projects such as crossing and intersection improvements	City of Pensacola	**Mid-term**

Quick-Build Projects

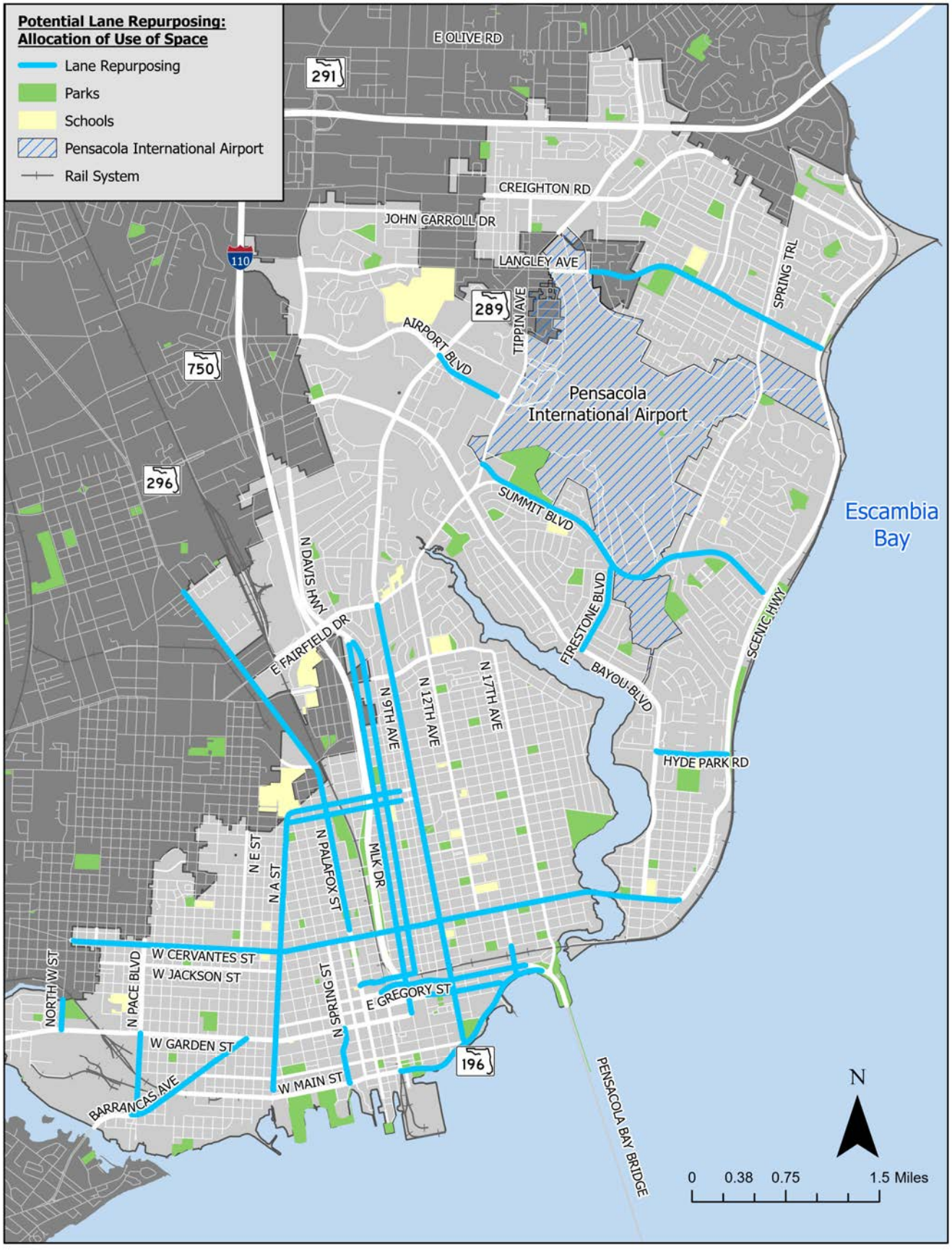
Quick-build projects can be pilot projects or interim build projects.

- Pilot projects tend to be based more on the concept of testing a solution during a cost-effective, quick-build implementation before deciding whether investment in a more permanent reconstruction is warranted.
- Interim-build projects are used to provide the public with the benefits of a project much earlier than otherwise would be available by waiting until the full reconstruction is funded, designed, and built.

Source: Kimley-Horn

Source: City Of Honolulu

Figure 18. Potential Lane Repurposing Map



3. Partner to Implement and Promote the Active Transportation Network

Implementing ATP projects will require partnerships with agencies. Coordination and partnerships with local, regional, public, and private entities, particularly on funding, are key to implementing the ATP guiding principles.

Partner to Implement and Promote the Active Transportation Network Actions

Actions No.	Action/Partnership	Description	Responsible Parties	Timing
3.01	Develop Annual and 5-Year Project Priority Lists	Develop a master list and map of annual and 5-year projects from the departments to review opportunities to leverage funding and implement ATP projects. The possibility of developing an interactive or web map should be reviewed to further coordinate the process. The City should review and update the prioritization spreadsheet, in Appendix, for Neighborhood Greenways and Trails/ Protected Bike Lanes for changing conditions overtime. Focus on the following: • Implement intersection and mid-block crossings (focus on high injury network, City controlled streets, or in partnership with other agencies or in tandem with other projects) • Implement wayfinding/signage to promote the network • Start with smaller infrastructure project – start with east/west neighborhood greenways • Build a full "spine" multi-use trail under I-110 that connects Hollice T Williams to the waterfront • Implement past waterfront plans to create a downtown east/west multi-use trail - provide connections to the surrounding neighborhoods • Advance other larger infrastructure trails into the Long Range Transportation Plan • Fill sidewalk gaps near destinations • Continued intersection and crossing improvements. Explore implementing RRFBs and PHBs	City of Pensacola	**Immediate** to **Mid-term**
3.02	TIP and LRTP Integration	Coordinate and partner with the TPO, County, and FDOT to integrate ATP projects in the TIP and LRTP.	City of Pensacola Florida-Alabama TPO	**Continuous**
3.03	Implement Projects with Future Development	Partner with the private sector and other agencies to implement ATP infrastructure such as pedestrian facilities and bicycle facilities (including parking)	City of Pensacola	**Continuous**

Partner to Implement and Promote the Active Transportation Network Actions (cont...)

Actions No.	Action/Partnership	Description	Responsible Parties	Timing
3.04	Conduct Education and Initiatives for Safer Streets	Provide training and education to staff to learn best practices from FDOT, NACTO, Institute of Transportation Engineers, and Federal Highway Administration Conduct educational campaigns through PSAs, collaboration with Pensacola Police Department, etc. to help people understand rules of the road and promote slower streets. Promote ATP through slow rides, coffee chats, food truck ralleys, CivicCon, other events Seek American League of Bicyclist Certification Engagement with local schools and tourism board	City of Pensacola	**Continuous**
3.05	Form a Bicycle and Pedestrian Advisory Committee (BPAC)	Form an Advisory Committee to provide input to decision makers on bicycle and pedestrian projects, programs, and policies.	City of Pensacola	**Short-term**
3.06	Pursue Bikeshare	Partner with a private vendor to implement bikeshare within the City	City of Pensacola	**Short-term**
3.07	Implement Additional Bicycle Parking	Include additional bicycle parking (key employers, schools, parks, Pensacola Bay City Ferry to connect to beaches)	City of Pensacola	**Short-term** to **Mid-term**
3.08	Pursue a Curb Management Plan	Identify a plan to provide further clarity on curb zones - bike/micromobility parking (corrals), transit, outdoor dining, and on-street parking	City of Pensacola	**Short-term**
3.09	Change Roadway Ownership	Look for opportunities to take ownership and change roadway jurisdiction from State or County to City on select streets. Focus on streets on the lane repurposing/allocation map.	City of Pensacola, County, and FDOT	**Mid-term** to **Long-term**
3.10	Explore Micromobility and Microtransit Options	Explore additional micromobility options such as a looper, downtowner, etc. to further connect active transportation network Explore microtransit for smaller circulator routes	City of Pensacola	**Mid-term**
3.11	Explore feasibility of mobility hubs	Mobility hubs are places in a community that bring together public transit, bike share, car share and other ways for people to get where they want to go without a private vehicle	City of Pensacola	**Mid-term**

Partner to Implement and Promote the Active Transportation Network Actions (cont...)

Actions No.	Action/Partnership	Description	Responsible Parties	Timing
3.12	Conduct an Engineering Study	Conduct a further engineering study for regional trail system to explore alignment and overcoming barriers to connections for projects that help complete the SUN Trail system.	City of Pensacola	**Mid-term**

4. Actively Seek Funding

There are various funding sources available to implement the projects within the ATP. Some of these sources are City funds, while others may come from the County, state, and federal level. There are also grant opportunities at the state and federal level that can be applied for to implement the ATP.

Actively Seek Funding Actions

Actions No.	Action/Partnership	Description	Responsible Parties	Timing
4.01	Pursue Dedicated and Additional Funding for the ATP	The City will seek diversified funding not only to mitigate larger infrastructure costs such as street re-designs, intersection projects, or even resurfacing, but also to focus on other less expensive interim projects, such as re-striping, signal timings, neighborhood greenways, and street trees. The City will also work with regional and local partners to fund ATP projects.	City of Pensacola	**Immediate**
4.02	Internal City Coordination	Combine ATP projects while reviewing pavement maintenance, 3R projects, or other CIP projects	City of Pensacola	**Immediate**
4.03	Partner with Escambia County	Coordinate with local partners to fund ATP projects that are adjacent to the City and leverage funding	Local City Partners	**Immediate**
4.04	Partner with FDOT	Work with FDOT on their Complete Streets efforts and fund projects within the City Pursue Safe Routes to School funding and Surface Transportation Program (STP) dollars	City of Pensacola, FDOT	**Immediate**
4.05	Partner with Florida-Alabama TPO	Coordinate on transportation alternatives funding Coordinate on recreational trails funding Program projects into the TIP and LRTP including trail and bicycle improvements	City of Pensacola, TPO	**Immediate**
4.06	Escambia County Area Transit	Work with Escambia County Area Transit (ECAT) to prioritize funding for improvements such as stop improvements on streets with high performing transit routes Prioritize funding for improvements that complete first and last mile connections to transit stops Seek grants and funding for transportation disadvantaged areas that could include demand response service	City of Pensacola, ECAT	**Immediate**

Additional Funding Opportunities

Opportunity	Description	Agency
State Infrastructure Bank Loans	Loan from the State of Florida for the development of Infrastructure Projects.	FDOT
Environmental Protection Agency (EPA)	Grant opportunities for green infrastructure and landscaping, healthy communities initiatives, and brownfields.	Environmental Protection Agency (EPA)
Community Development Block Grant Program (CDBG)	CDBG grants to benefit low to moderate income persons and communities, sustainable communities grants.	Housing and Urban Development (HUD)
AARP Community Challenge	Small grants to fund "quick-action" projects. AARP will prioritize projects that support residents age 50 or over, are inclusive, address disparities, AND directly engage volunteers.	American Association of Retired Persons (AARP)
Recreational Trails Program	Matching-grant funds to renovate, develop, or maintain recreational motorized, nonmotorized, and mixed-use trails and trailside facilities.	Florida Department of Environmental Protection (FDEP)
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	Grants are for capital investments in surface transportation that will have a significant local or regional impact.	USDOT OST
Community Planning Technical Assistance Grant (CPTAG)	Supports innovative, creative, or unique approaches to planning and development, and infrastructure.	Florida Department of Economic Opportunity (DEO)
Safe Streets and Roads for All (SS4A) - Implementation Grant	Funding to support Vision Zero initiatives that prevent death and serious injury on roads and streets, including the implementation of a safety action plan.	USDOT OST
Reconnecting Communities Pilot (RCP) Program	Funds are to be awarded on a competitive basis and dedicated to reconnecting communities that were previously cut off from economic opportunities by transportation infrastructure.	USDOT OST
Advanced Transportation Technology and Innovation (ATTAIN) Program	The ATTAIN Program is intended to provide funding to eligible entities to deploy, install, and operate advanced transportation technologies to improve safety, mobility, efficiency, system performance, intermodal connectivity, and infrastructure return on investment.	USDOT FHWA
The Trail Fund	Can be used for trail maintenance backlog on State and Local Lands, research with a focus on the development and understanding of how trails and the industry create value and impact, or Stewardship Training.	American Trails

Additional Funding Opportunities (cont...)

Opportunity	Description	Agency
Shade Structure Program	Must be used to implement a shade structure that meets the stringent requirements of the AADA. Examples include bench shelters, bus shelters, and shade for playgrounds.	American Academy of Dermatology Association (AADA)
People for Bikes Grants	PeopleForBikes accepts grant applications from non-profit organizations with a focus on bicycling, active transportation or community development; from city or county agencies or departments and from state or federal agencies working locally.	PeopleforBikes

Source: City of Edmonton

Evaluation and Measuring Success

The Guiding Principles in Section 3 provide the framework for transportation improvements that develop a multimodal mobility system. This system must be safe, accessible, and efficient for people of all ages and abilities. Performance measures evaluate the success of future developments, local, and regional programs and City improvements in achieving the principles. Performance measures for each guiding principle are listed below from a Citywide perspective. Specific ATP projects should also be measured for effectiveness after construction.

Measurements for Success

Overall

- Create a dashboard to start to monitor and evaluate some of the items below. Others may take more time to gather and may not be evaluated each year.
- Bicycle and Pedestrian Advisory Committee will help monitor progress on ATP goals and projects.

Put Safety First

- Number of deaths (all, bicycle, pedestrian)
- Number of Injuries (all, bicycle, pedestrian)
- Number of crashes, deaths, injuries withing disadvantaged areas
- Number of streets with speed management improvements or re-allocation/retrofits
- % of arterial and collector streets where posted speed is within target speed range
- Number of intersections with adaptive signal control or pedestrian improvements (LPI)
- Number of City-controlled lighting improvements
- Number of training events each year
- Number of trees planted by City within ROW adjacent to streets.

Connect People and Places

- % sidewalk or bicycle coverage near schools, parks, major employment
- Number of gaps connected
- Number of new developments with ATP improvements

Access for All

- Miles of ATP network within Disadvantaged Areas
- Miles of ATP network within areas with high concentrations of those with disabilities
- Number of new transit stop connections

Add Mobility Options

- Miles of bicycle infrastructure completed
- Miles of sidewalks
- # of crossings and intersection improvements
- # of new bicycle parking locations
- % mode split (US Census)
- Number of ATP related events held each year

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Next Steps

Pensacola In Motion was developed to build onto the momentum from the last few years in creating an active transportation network. It is a unique time in history when there is more focus on creating safe and comfortable streets with additional funding coming from the federal government.

To achieve the development of a safe and comfortable network, and the guiding principles of the ATP, it will take short-term and long-term actions. There will need to be collaboration and partnership with Escambia County, FDOT, and other government agencies as well as the private sector, community-based organizations, and local partners. Despite available federal funding, local funding is not in endless supply, but there is an opportunity to get tactical and resourceful. Of utmost importance is to update the policies and procedures. There will need to be flexibility and evaluation of the recommendations. The City will continue the prioritization criteria and changing conditions to continue to monitor and reassess priority projects identified in **Figures 15 - 17**.

The opportunity is to build onto the history and vibrancy of Pensacola and to implement one of the premier networks in the country for a mid-sized city. With this comes economic vitality and options. There is also a chance to achieve Vision Zero and create safer streets. The real opportunity is to create a connected network not only for people that live and visit the City today but also for future generations to keep **Pensacola In Motion!**


STOP
ALL WAY

PENSACOLA *in motion*

ACTIVE TRANSPORTATION PLAN