MOBILITY 2045

Pasco County MPO Transportation Plan

**Pasco County MPO**

# MOBILITY 2045 Long Range Transportation Plan Final Report

***Prepared for***

***Prepared by***

Tindale Oliver

# PREFACE

This document was prepared by the Pasco County Metropolitan Planning Organization (MPO) in cooperation with the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Florida Department of Transportation (FDOT), District 7.

The preparation of this report has been financed in part through grant(s) from FHWA and FTA, U.S. Department of Transportation (USDOT), under the State Planning and Research Program, Section 505 (or Metropolitan Planning Program, Section 104[f]) of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the USDOT.

This document is consistent with the requirements of Fixing America's Surface Transportation (FAST) Act, which was signed into law on December 4, 2015.

Further, it is hereby certified that the planning process of the Pasco County MPO MOBILITY 2045 LRTP is in conformance with the provisions of 23 C.F.R. 450, 23 U.S.C. 134, and 339.175(7) Florida Statutes, and is consistent with all Federal and State requirements. The last FHWA/FTA certification review of the Pasco County MPO was published in June 2017.

Detailed technical documentation was prepared during the development of the MOBILITY 2045 LRTP. These technical reports are available by request to the MPO. This document has been developed to demonstrate compliance of the plan development process with the federal and state requirements.

This document includes an Executive Summary, a complete summary document that is ADA-compliant and can be found on the Pasco MPO website. It provides a concise, citizen-friendly summary of MOBILITY 2045, including the adopted Cost Affordable Plan.

Also found herein is more detailed technical documentation of MOBILITY 2045 (Chapters 1–11), which provide an account of how MOBILITY 2045 was developed. Supporting this document is a standalone document of Appendices that include referenced, supporting documentation and minor work products and deliverables that support MOBILITY 2045.

# PASCO COUNTY MPO

# MOBILITY 2045
# LONG RANGE TRANSPORTATION PLAN

*Prepared for*

**PASCO COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
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**Published March 2020**

In accordance with Title VI of the Civil Rights Act of 1964 and other nondiscrimination laws, public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, familial, or income status. It is a priority of the MPO that all citizens of Pasco County are given the opportunity to participate in the transportation planning process including low-income individuals, persons with disabilities, and persons with limited English proficiency. You may contact the MPO's Title VI Specialist at (727) 847-8140 if you have any discrimination complaints

**RESOLUTION** 20-055

**A RESOLUTION OF THE PASCO COUNTY METROPOLITAN PLANNING ORGANIZATION (MPO) ADOPTING THE MOBILITY 2045 LONG RANGE TRANSPORTATION PLAN AND CERTIFYING THE PLAN AS THE OFFICIAL LONG RANGE TRANSPORTION PLAN FOR PASCO COUNTY, FLORIDA.**

**WHEREAS,** the Pasco County MPO is the responsible entity for conducting a continuing, cooperative, and comprehensive transportation planning program for Pasco County, Florida; and

**WHEREAS,** under federal and state regulations, the Pasco County MPO has, as one of its primary duties, the responsibility for developing and adopting an updated 2045 Long Range Transportation Plan (LRTP) conforming to the requirements of the Fixing America's Surface Transportation (FAST) Act; and

**WHEREAS,** the MOBILITY 2045 LRTP has addressed the FAST Act requirements for transportation plans as well as the planning factors contained in the FAST Act; and

**WHEREAS,** the MOBILITY 2045 LRTP considered the January 2018 Federal Strategies for Implementing Requirements for LRTP Updates for the Florida MPOs; and

**WHEREAS**, the MOBILITY 2045 LRTP considered the Metropolitan Planning Organization Advisory Council July 2017 document regarding Financial Guidelines for MPO 2045 Long Range Plans; and

**WHEREAS,** the Pasco County MPO has conducted a public involvement program throughout the MOBILITY 2045 LRTP development process that is consistent with the Pasco County MPO Public Participation Plan, including advertised public workshops, a public hearing and meetings with interested community groups, and distribution of materials (electronic media, web-based and hard copy) throughout the County ; and

**WHEREAS,** the Pasco County MPO has considered the principles of Environmental Justice by conducting environmental justice workshops that targeted the community's underserved populations to avoid any disproportionate impacts; and

**WHEREAS,** the Pasco County MPO has coordinated the MOBILITY 2045 LRTP development with involved state, regional and local agencies, including consideration of locally adopted comprehensive plans and the Florida Transportation Plan; and

**WHEREAS,** the MOBILITY 2045 LRTP has considered multimodal and intermodal opportunities to serve the mobility of people and goods throughout Pasco County and adjacent counties; and

**WHEREAS,** the MOBILITY 2045 LRTP identifies short range strategies for alleviating congestion, improving safety and promoting increased system efficiency through systems management techniques and coordination with land use planning and development activity; and

**WHEREAS,** the MOBILITY 2045 LRTP projects costs and revenues that are anticipated to be available to fund projects to assure the MOBILITY 2045 Cost Affordable Plan; and

**WHEREAS,** the Pasco County MPO has fully supported the development of a transportation plan for West Central Florida through participation in the Florida Department of Transportation's Regional Transportation Analysis, the West Central Florida MPO Chairs Coordinating Committee (CCC), and the Tampa Bay Area Regional Transportation Authority (TBARTA) Regional Transportation Master Plan, thereby providing for the region's mobility needs and promoting coordinated planning for inter-county corridors.

**WHEREAS,** the Pasco County MPO has facilitated significant public outreach over the past year and, during November and December (November 6th through December 6th) provided for a thirty-day comment period during which two open house workshops were facilitated prior to taking final action on the MOBILITY 2045 LRTP at the regularly scheduled MPO meeting on December 11, 2019.

**NOW, THEREFORE, BE IT RESOLVED,** that the Pasco County MPO duly assembled in regular session on this 11th day of December, 2019, having fulfilled all federal and state requirements, certifies that the MOBILITY 2045 Long Range Transportation Plan, as well as associated policies, is the adopted Transportation Plan for all modes of transportation in Pasco County, Florida.

**BE IT FURTHER RESOLVED** that henceforth the MOBILITY 2045 Long Range Transportation Plan, including all maps, inventories, and other related materials, shall be the basis for future plans, programs, and policies of the Pasco County MPO.

ADOPTED in regular session on the 11th day of December, 2019.

**PASCO COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**

Jeff Starkey, MPO Chairman 12-11-2019

BOARD OF COUNTY COMMISSIONERS ORGANIZED JUNE 2nd 1887 PASCO COUNTY, FLORIDA

Attest:

Deputy Clerk Jessica L Floyd, D.C.

(SEAL)

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

County Attorney's Office

# PASCO COUNTY
# METROPOLITAN PLANNING ORGANIZATION

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City of New Port Richey

Lance Smith, MPO Vice-Chair
Councilmember, City of Zephyrhills

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Pasco County

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*(Non-Voting Advisor)*

## PASCO COUNTY MPO STAFF

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### Acknowledgments

Over the last two years during the development of this Long Range Transportation Plan, Pasco County's John Villeneuve, Transportation Planning Manager/MPO Director, and Ali Atefi, P.E., Engineer III, contributed to it development. Their efforts are recognized following their retirements in 2019.

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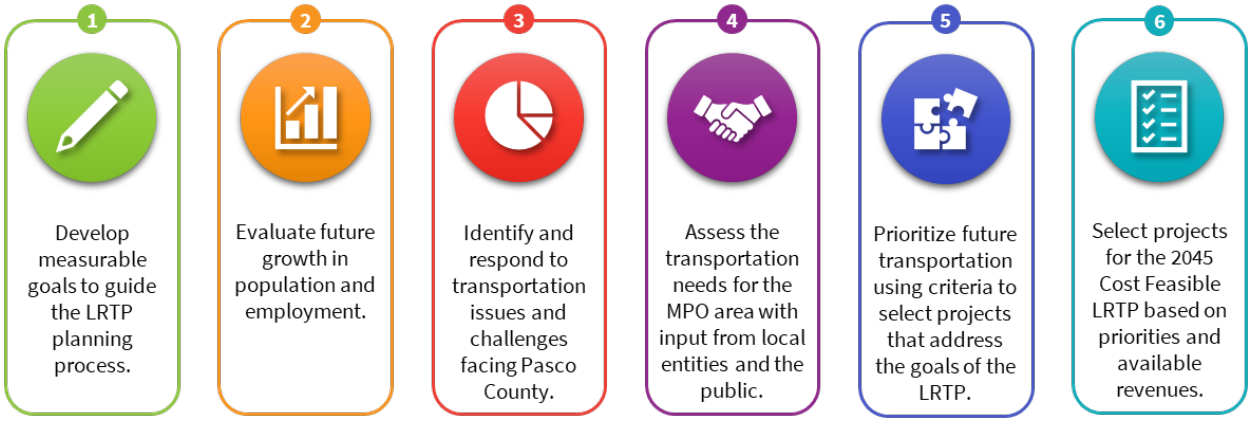
# Executive Summary

## Introduction and Overview

### MOBILITY 2045 Introduction

MOBILITY 2045 is the Long Range Transportation Plan (LRTP) for Pasco County produced by the Pasco County Metropolitan Planning Organization (MPO); its development took place over two years (2018 and 2019). This document defines and illustrates MOBILITY 2045 LRTP components in both map and tabular formats and provides an overview of the process followed for establishing a community vision and goals that guided the LRTP development. Figure ES-1 provides an overview of the steps followed in deriving the results and recommendations for the MOBILITY 2045 LRTP.

**Figure ES-1: MOBILITY 2045 Development Process**




Supporting technical documentation for Pasco County MOBILITY 2045 reports can be found in the full LRTP document, standalone technical reports, and technical appendices, which can be accessed by contacting the Pasco County MPO.

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### MOBILITY 2045 Overview

The MOBILITY 2045 Cost Affordable Plan reflects an $8 billion transportation program covering 2025–2045. It represents an increase of 6% from the program adopted in the MPO's 2040 LRTP. Table ES-1 compares the allocation of revenues by transportation mode/program for the MOBILITY 2045 Plan and the MOBILITY 2040 Plan (adopted in December 2014). Table ES-2 provides a breakdown of the

distribution of revenues by source for the MOBILITY 2045 Plan, and Table ES-3 further categorizes the local revenues by local revenue source and allocation to transportation programs.

**Table ES-1: MOBILITY 2040 and MOBILITY 2045 Spending Comparison by Transportation Mode**

| Mode/Program | MOBILITY 2040 (Adopted Dec 2019) | | MOBILITY 2045 (Adopted Dec 2019) | |
|---|---|---|---|---|
| | *Total Cost* (in millions)* | *Distribution* | *Total Cost* (in millions)* | *Distribution* |
| Highway Expansion | $4,782 | 63.6% | $5,781 | 71.1% |
| Transit (Operations & Capital) | $1,881 | 25.0% | $768 | 9.4% |
| Trails, Sidewalks, Bicycle Facilities | $94 | 1.3% | $183 | 2.3% |
| ITS/CMP | $71 | 0.9% | $273 | 3.4% |
| Highway Maintenance | $689 | 9.2% | $1,120 | 13.8% |
| **TOTAL** | **$7,517** | **100.0%** | **$8,125** | **100.0%** |

** Total cost shown in Future Year of Expenditure (YOE) amounts.*

**Table ES-2: Distribution of Revenues by Source:**

| Revenue Source | Total Revenue* (in millions) | Distribution |
|---|---|---|
| Federal and State | $2,171 | 27% |
| MPO Attributable | $152 | 2% |
| Local | $3,941 | 48% |
| Private Contributions | $1,861 | 23% |
| **TOTAL** | **$8,125** | **100.0%** |

** Total Revenue shown in Future Year of Expenditure (YOE) amounts.*

The following key observations were made regarding the MOBILITY 2045 Cost Affordable Plan:

- Transit investment decreased significantly, from nearly 25% of total expenditures in MOBILITY 2040 to 10% in MOBILITY 2045. This is a direct result of a new transportation surtax not being included in MOBILITY 2045; a transportation surtax was included in revenues for MOBILITY 2040.
- Highway maintenance investment increased significantly, from just over 9% in MOBILITY 2040 to almost 14% in MOBILITY 2045 as a result of projected increases in Tax Increment Financing (TIF) revenues.
- Highway expansion investment increased, from nearly 64% in MOBILITY 2040 to about 71% in MOBILITY 2045.
- The percent allocated for Trails, Sidewalks, and Bicycle Facilities nearly doubled, from 1.3% to 2.3%.
- The investment allocation in Intelligent Transportation Systems (ITS) and the Congestion Management Process (CMP) had the greatest overall increase of all programs, from less than 1% of total spending to more than 3%, over three times more funds expended.

**Table ES-3: Allocation of Revenues to LRTP Programs ($ millions of future revenues)**

| Funding Programs and Sources | 2025 | 2026-2030 | 2031-2035 | 2036-2045 | Total |
|---|---|---|---|---|---|
| ***Roadways*** | **$150.94** | **$1,292.68** | **$1,421.27** | **$2,916.35** | **$5,781.23** |
| Strategic Intermodal System | $0.00 | $259.73 | $62.87 | $525.23 | **$847.83** |
| Other Roads Construction & ROW – Capacity | $23.32 | $136.65 | $147.82 | $307.99 | **$615.78** |
| Other Roads Construction & ROW – Product Support | $5.13 | $31.16 | $33.62 | $69.96 | **$139.87** |
| TMA Funds | $5.63 | $27.16 | $26.47 | $41.75 | **$101.01** |
| TRIP Funds | $0.74 | $5.50 | $6.10 | $12.52 | **$24.86** |
| 5-Cent Local Option Fuel Tax | $10.57 | $54.53 | $57.24 | $120.93 | **$243.27** |
| Mobility Fees | $30.08 | $142.58 | $143.21 | $262.95 | **$578.81** |
| Tax Increment Financing | $26.34 | $162.36 | $217.64 | $623.91 | **$1,030.24** |
| Tax Increment Financing (VOPH) | $1.23 | $7.43 | $9.72 | $27.24 | **$45.62** |
| Penny for Pasco (1.0%), 18% for Transportation | $11.42 | $66.27 | $84.58 | $245.72 | **$407.99** |
| Developer Contributions | $36.48 | $399.31 | $632.00 | $678.14 | **$1,745.93** |
| ***Transit Revenues*** | **$27.68** | **$149.64** | **$161.46** | **$429.09** | **$767.86** |
| Federal 5307 | $3.88 | $20.17 | $22.15 | $51.08 | **$97.28** |
| Federal 5311 | $0.58 | $3.01 | $3.33 | $7.73 | **$14.65** |
| FDOT Block Grant | $1.17 | $6.17 | $6.82 | $15.83 | **$29.99** |
| FDOT Urban Corridor Grant | $1.13 | $5.88 | $6.50 | $15.09 | **$28.60** |
| FDOT Service Development Grant | $0.71 | $1.62 | $0.00 | $0.00 | **$2.33** |
| State New Starts Transit Funds | $4.53 | $25.92 | $28.24 | $59.34 | **$118.03** |
| Local Match | $2.07 | $7.75 | $0.00 | $0.00 | **$9.82** |
| Penny for Pasco (1.0%), 18% for Transportation | $0.82 | $4.73 | $6.04 | $17.55 | **$29.14** |
| Mobility Fees | $0.16 | $0.76 | $0.76 | $1.46 | **$3.14** |
| Tax Increment Financing | $7.18 | $44.28 | $59.36 | $170.16 | **$280.98** |
| Fare Revenue | $1.73 | $9.72 | $16.84 | $64.76 | **$93.05** |
| Paratransit | $1.52 | $7.98 | $8.74 | $19.86 | **$38.10** |
| Other (Local/Private) | $2.20 | $11.65 | $2.68 | $6.23 | **$22.76** |
| ***Bicycle and Pedestrian*** | **$5.89** | **$32.57** | **$39.15** | **$105.32** | **$182.94** |
| TALU (>200,000 Population) | $0.44 | $2.22 | $2.22 | $4.43 | **$9.31** |
| TALT (Any Area) | $0.58 | $2.91 | $2.91 | $5.83 | **$12.23** |
| Mobility Fees | $0.79 | $3.78 | $3.81 | $7.31 | **$15.68** |
| Penny for Pasco (1.0%), 18% for Transportation | $4.08 | $23.67 | $30.21 | $87.76 | **$145.71** |
| ***Roadway Maintenance*** | **$38.65** | **$213.76** | **$250.02** | **$618.02** | **$1,120.45** |
| State Constitutional Fuel Tax | $4.88 | $25.15 | $26.34 | $55.62 | **$111.99** |
| County Fuel Tax | $2.16 | $11.16 | $11.72 | $24.78 | **$49.82** |
| Ninth-Cent Fuel Tax | $2.59 | $13.33 | $13.97 | $29.76 | **$59.65** |
| 6-Cent Local Option Fuel Tax | $14.65 | $75.56 | $79.28 | $167.55 | **$337.04** |
| Tax Increment Financing | $14.37 | $88.56 | $118.71 | $340.31 | **$561.95** |
| ***Congestion Management and Technology*** | **$8.30** | **$56.12** | **$60.91** | **$147.99** | **$273.32** |
| Other Roads Construction & ROW – Capacity | $5.83 | $40.41 | $43.21 | $89.50 | **$178.95** |
| Other Roads Construction & ROW – Product Support | $1.28 | $7.79 | $8.41 | $17.49 | **$34.97** |
| TMA Funds | $0.60 | $3.96 | $4.65 | $20.50 | **$29.71** |
| Mobility Fees | $0.60 | $3.96 | $4.65 | $20.50 | **$29.71** |

** Total revenue shown in Future Year of Expenditure (YOE) amounts*

## Plan Development

The MOBILITY 2045 LRTP is the result of significant efforts over 2018 and 2019, including the following:

- Review of planning assumptions and Federal/State planning requirements.
- Development of population and employment projections to support transportation demand projections.
- Participation in the regional planning and coordination process for development of a coordinated and consistent long-range transportation plan for the Tampa Bay Region.
- Significant coordination with the Tampa Bay Area Regional Transportation Authority (TBARTA) and adjacent MPOs and counties in the development of a regional public transportation system that includes premium transit options.
- Regional environmental consultation workshop with adjacent MPOs and environmental regulatory agencies to identify potential environmental mitigation strategies.
- Public workshops/open houses to receive citizen input on transportation needs and priorities.
- Participation in the FHWA Resilience and Durability Pilot Study with adjacent MPOs to assess the potential climate vulnerability and risks of our transportation network to weather-related events.
- Discussion groups to obtain input from social service and other agencies regarding the transportation needs of the traditionally under-served populations (minority, low-income, older adults, persons with disabilities, and other population segments).
- Identification of transportation needs, including highway, transit, bicycle, pedestrian, multi-use trail, intersection/safety improvements, technology, and other transportation projects.
- Financial resources analysis.
- Prioritization of transportation projects for inclusion in the MOBILITY 2045 Cost Affordable Transportation Plan.

Outreach efforts supporting LRTP development in 2018 included the It's TIME Pasco and It's TIME Tampa Bay online surveys. More than 2,400 Pasco residents provided input on the transportation needs and issues in Pasco County.

## Public Participation

During the MOBILITY 2045 update, there were a multitude of tools used in the public involvement process to engage a full range of community stakeholders and facilitate their active participation in plan development. As public input was a key element that helped guide the plan, the outreach process was designed to maximize public engagement. The following section outlines the outreach techniques and provides a summary of the public involvement efforts of the MOBILITY 2045 update.

### *Outreach Techniques*

**Project Website** – the single source of all information and project-related materials for the MOBILITY 2045 update; included links to all the maps, documents, and presentations developed for the Plan as well as information about the project schedule and how to get involved.

**Social Media** – a key forum for communication regarding event and meeting announcements and project updates; the Pasco County Development Services Facebook, Instagram, and Twitter accounts (@PlanningPasco) were used by the Pasco MPO to connect with the community and distribute information about the MOBILITY 2045 update.

**Online surveys** – conducted two surveys to provide opportunities for residents to comment on and share their thoughts on the type of transportation investments needed to serve Pasco County and the Tampa Bay Region through the year 2045. The It's TIME Pasco online survey was targeted for Pasco residents, and the It's TIME Tampa Bay on-line survey was a tri-county (Hillsborough, Pasco, Pinellas) regional outreach effort.

**Web Map** – developed for the public to vote on transportation projects and to prioritize transportation improvements in Pasco County.

**Community Workshops and Presentations** – held at various locations throughout Pasco County to provide an opportunity for the public to learn about MOBILITY 2045; workshops and presentations also provided opportunities for residents to comment on transportation at the county-wide level and on specific issues, needs, and transportation projects within more defined sub-areas of the county.

**MPO Board and Committee Meetings** – held throughout the project to discuss and review technical analyses and the development of the different phases of the MOBILITY 2045 update; provided the opportunity for members to comment on developing the vision and directing the LRTP; included topics such as the Vision and Goals, transportation revenue scenarios, the Needs Assessment, project cost assumptions, and the Cost Feasible Plan.

**Regional Committee Meetings** – with the Hillsborough MPO (Plan Hillsborough) and the Pinellas MPO (Forward Pinellas) were conducted on a monthly basis to coordinate the development of each MPO's 2045 LRTP through the Technical Review Team meetings.

The following graphic summarizes the public involvement activities and participation that took place as part of MOBILITY 2045. More than 4,300 people participated through one of the many techniques used in the public outreach process.


## Outline of Executive Summary

This summary report is organized into five sections:

- Section 1 includes an Introduction and overview of the report, an overview of the transportation investment in MOBILITY 2045, a summary of the report format, public participation overview, and a summary list of activities completed to develop the Plan.
- Section 2 provides an overview of the goals of the MOBILITY 2045 LRTP and their consistency with State and Federal planning requirements.
- Section 3 includes a review of the population and employment growth expected in Pasco County by 2045 to create the basis for determining future travel demands and the areas of greatest need for future transportation investments.

- Section 4 presents the Pasco County MPO Multimodal Cost Affordable LRTP, including a geographic and tabular review of major capacity projects and the approach for identifying future projects in the walk/bike and congestion management programs.
- Section 5 concludes the report by identifying key next steps that must be taken to ensure that the projects identified in the Plan transition to implementation.

For additional information, please contact the Pasco County MPO at (727) 847-8140 or (352) 521-4274.

# Vision and Goals

The MOBILITY 2045 LRTP was developed to be consistent with the requirements of the FAST Act, which was signed into law on December 4, 2015. As with previous transportation laws, the FAST Act includes a series of metropolitan planning factors that ensure that the work of the MPO is based on a continuous, cooperative, and comprehensive process.

## Federal Planning Factors

Following are the 10 planning factors to be applied to the metropolitan planning process for all MPOs, including the Pasco MPO:

1) Economic Vitality: Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2) Safety: Increase the safety of the transportation system for motorized and non-motorized users.
3) Security: Increase the security of the transportation system for motorized and non-motorized users.
4) Accessibility: Increase accessibility and mobility of people and freight.
5) Environment: Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.
6) Connectivity: Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7) Efficient Management: Promote efficient system management and operation.
8) Preservation: Emphasize the preservation of the existing transportation system.
9) Resiliency: Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10) Enhance Travel: Enhance travel and tourism.

## MOBILITY 2045 Goals

In addition to addressing Federal planning factors, consistency with the FDOT's 2015 Florida Transportation Plan (FTP) Policy Element and policies included in the local government comprehensive plans have been included in review and development of the LRTP Goals and Objectives listed below.

**Goal 1** Provide multimodal facilities and services that ***support economic development.***

**Goal 2** ***Improve the safety and security*** of the multimodal transportation network for motorized and non-motorized users.

**Goal 3** Maximize opportunity for ***local and regional connectivity and modal choice*** for all Pasco County residents, employees, visitors, and commerce.

**Goal 4** ***Create quality places*** by coordinating transportation and land use planning with the County and cities that facilitates healthy, active living and protects the County's natural resources through proactive environmental stewardship.

**Goal 5** Manage and provide a ***reliable and efficient multimodal transportation system***.

**Goal 6** ***Encourage full public participation*** early and throughout plan adoption and ensure that the Transportation Plan and MPO planning activities reflect the needs of the community, particularly those that are traditionally underserved.

## State and Federal Consistency

Consistency with the National Planning Factors and Goals of the FTP are critical components of the MOBILITY 2045 LRTP. Demonstrating this consistency is a major milestone in conducting the LRTP and ensuring that the planning conducted by the Pasco MPO meets and supports the expectations of the federal and state requirements. Table ES-4 shows the correlation between the goals of the FTP and the goals of the MOBILITY 2045 LRTP.

**Table ES-4: Comparison of FTP and MOBILITY 2045 LRTP Goals**

| 2015 FDOT FTP Policy Element Goals | MOBILITY 2045 LRTP Goals |
|---|---|
| 1. Safety and Security for Residents, Visitors, and Businesses | *Goal 2* – Improve Safety and Security |
| 2. Agile, Resilient, and Quality Infrastructure | *Goal 4* – Create Quality Places<br>*Goal 5* – Provide a Reliable, Resilient and Efficient Multimodal Transportation System |
| 3. Efficient and Reliable Mobility for People and Freight | *Goal 1* – Support Economic Development<br>*Goal 3* – Provide Local and Regional Connectivity and Transportation Choices |
| 4. More Transportation Choices for People and Freight | *Goal 1* – Support Economic Development<br>*Goal 3* – Provide Local and Regional Connectivity and Transportation Choices<br>*Goal 5* – Provide a Reliable, Resilient and Efficient Multimodal Transportation System |
| 5. Transportation Solutions that Support Florida's Global Economic Competitiveness | *Goal 1* – Support Economic Development |
| 6. Transportation Solutions that Support Quality Places to Live, Learn, Work, and Play | *Goal 4* – Create Quality Places |
| 7. Transportation Solutions that Support Florida's Environment and Conserve Energy | *Goal 5* – Provide a Reliable, Resilient and Efficient Multimodal Transportation System |

Consistency with the 10 National Planning Factors listed in the FAST Act is shown in Table ES-5. These factors outline the Federal position on planning. The Goals identified by the MPO were aligned with these factors.

**Table ES-5: Comparison of FAST Act Planning Factors and MOBILITY 2045 LRTP Goals**

| FAST Act Planning Factors | Goal 1 | Goal 2 | Goal 3 | Goal 4 | Goal 5 | Goal 6 |
|---|---|---|---|---|---|---|
| Economic Vitality | ✓ | | | | ✓ | ✓ |
| Increase Safety | ✓ | ✓ | | | ✓ | ✓ |
| Increase Security | | ✓ | | | ✓ | ✓ |
| Increase Accessibility and Mobility | ✓ | | ✓ | | ✓ | ✓ |
| Improve Quality of Life, Environment, Energy Conservation, and Plan Consistency | | | | ✓ | | ✓ |
| Connectivity | | | ✓ | ✓ | ✓ | ✓ |
| System Management | | ✓ | | | ✓ | ✓ |
| Preservation | | | | ✓ | | ✓ |
| Improve Resiliency and Reliability | | ✓ | | | ✓ | ✓ |
| Enhance Travel and Tourism | ✓ | | | | | ✓ |

# Future Population and Employment Growth

## Countywide Growth Forecast

For the purpose of determining future transportation needs, projected population and employment for 2045 were estimated and distributed throughout the county based on approved developments and Pasco County's Future Land Use Map. The 2045 forecast for household population is 785,428, and the employment total is 266,561 employees. This represents an increase in population of 311,003 and in employment of 109,061 from 2015 to 2045. The projected population represents an average of the forecasted Medium and High population projections developed by the Bureau of Economic and Business Research (BEBR). Forecasts of future population in previous LRTP updates have included a faster and higher continued growth expectation for Pasco County using the BEBR high estimate. Development of 2045 population projections included a review of current trends and historic BEBR projections and estimates developed by Woods & Poole for comparative purposes. Figure ES-2 shows the historic population growth of Pasco County relative to projected growth from these sources.

Pasco County also has implemented economic policies to encourage job growth in the county and land use policies regarding the location for future coordinated growth of population and employment centers. Currently, as much as 45 percent of the Pasco County workforce is employed in Hillsborough or Pinellas counties, according to the US Census Bureau's OnTheMap application. The forecast was developed based on the assumption that the population-to-jobs ratio would remain relatively constant; however, unemployment has been returning to previous historic levels (down from 12% to 5%), and a transition from service-based jobs to industrial jobs affects the mix of future employment, wages, and transportation needs. Through review with staff from the Pasco County Office of Economic Growth, the assumptions of population-to-jobs and industry mix were verified and determined to be reasonable for estimating growth in jobs for the next 30 years. Table ES-6 presents the recommended population and employment forecasts for Pasco County.

**Figure ES-2: Pasco County Population Historic Growth and Forecast**

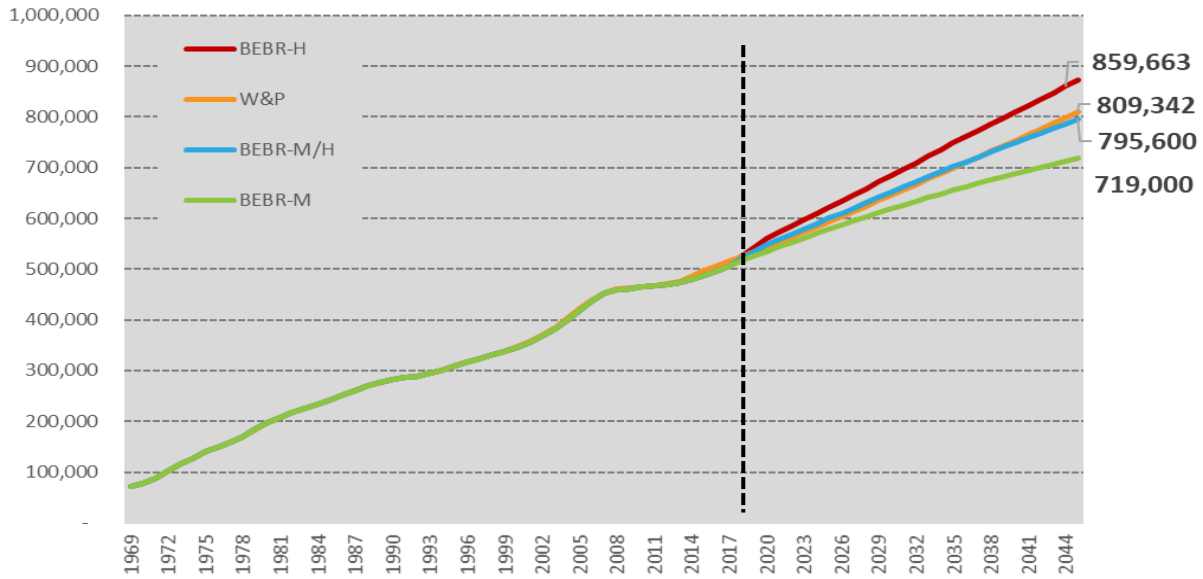



**Table ES-6: Population and Employment Forecast Recommendation**

| Variable | 2015 | 2035 | 2045 | 2015–2045 Growth |
|---|---|---|---|---|
| Household Population | 477,662 | 691,614 | 785,428 | 307,766 |
| Group Quarters Population | 6,335 | 8,965 | 9,572 | 3,237 |
| Total Population | 483,997 | 700,579 | 795,000 | 311,003 |
| Employees | 157,500 | 228,187 | 266,561 | 109,061 |
| Employees/Population Ratio | 0.33 | 0.33 | 0.34 | n/a |

## Growth Allocation

The MPO developed a land use allocation model using CommunityViz software to distribute future population and employment growth based on location, build-out potential, and development attractiveness. The model divided the county into a series of grid cells to represent different development types, patterns, and intensities anticipated for the study area, and existing development status was assigned to each parcel in Pasco County using 2015 aerial photography and the Property Appraiser database. Values for development status were recorded as Open Space, Agriculture, Developed, Undeveloped, or Committed Development.

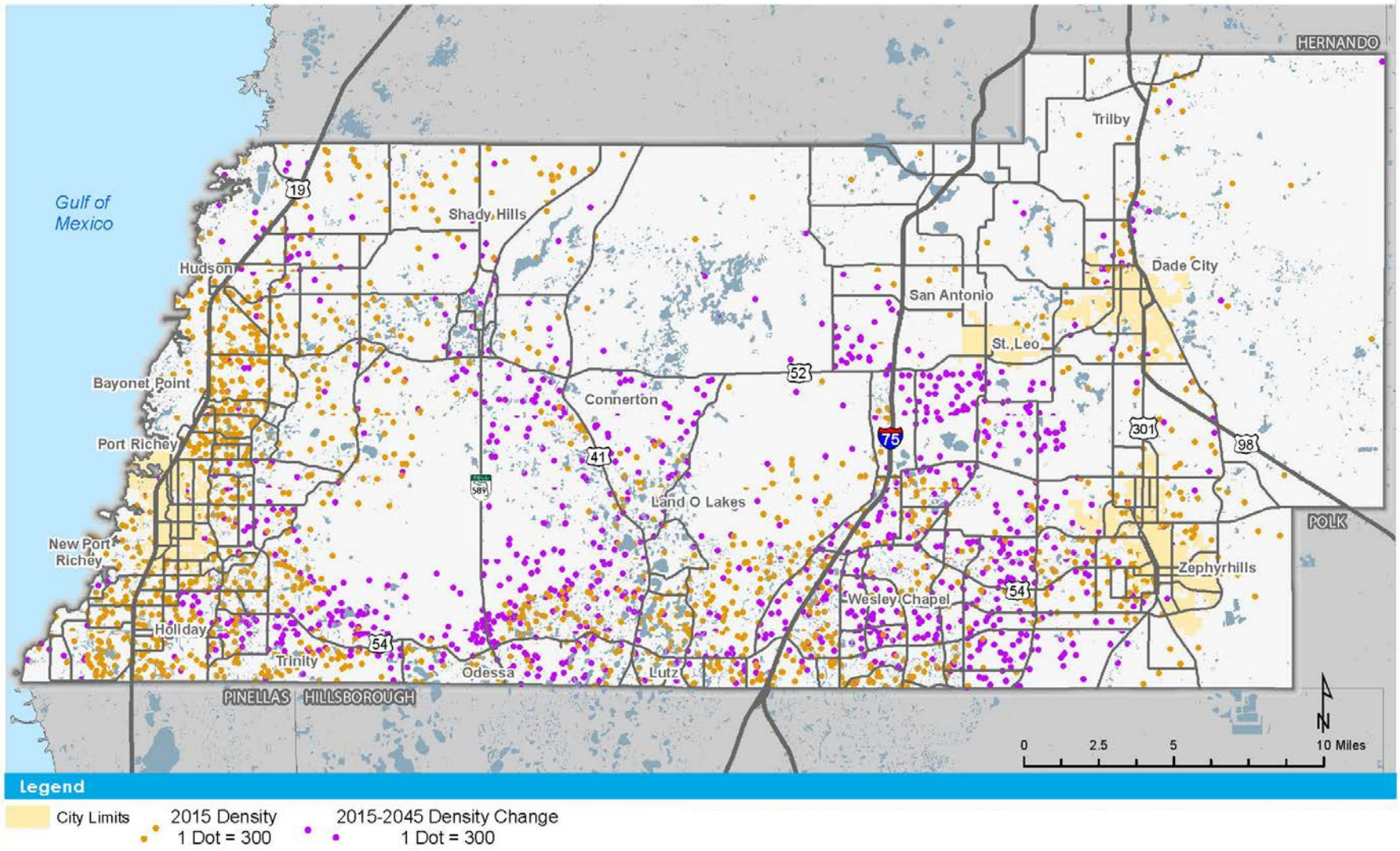
Information from Pasco County on Master Planned Unit Developments (MPUDs) and approved developments as of November 13, 2018, were incorporated into the forecasts of future growth. Approved dwelling units and employees were allocated to the grid cells based on the timeframe in which approved developments are expected to occur. The remainder of the population and employment growth was allocated using the CommunityViz land use allocation model.

Consistent with the County's Comprehensive Plan, Table ES-7 shows the distribution of future growth to the County Market Areas. Map ES-1 shows the distribution of the base year (2015) and future 2045 population in Pasco County.

**Table ES-7: Population and Employment Growth to Pasco Market Areas**

| Market Area | Population Growth | Employment Growth |
|---|---|---|
| Gateway Crossings (South) | 56% | 68% |
| Harbors (West) | 10% | 4% |
| Midlands (Central) | 28% | 21% |
| Highlands (East) | 3% | 5% |
| Countryside (North) | 3% | 2% |

**Map ES-1: Existing and Future Population**



# MOBILITY 2045 Cost Affordable Plan

Determining the transportation projects and strategies to include in the MOBILITY 2045 Cost Affordable LRTP was based on an evaluation of prioritized needs and availability of transportation revenues. This section provides a listing of the major projects included as being "cost affordable" in the LRTP along with a series of maps and detailed funding tables.

## Roadway Capacity Projects

The 2045 Cost Affordable roadway network includes significant capacity improvements throughout Pasco County. Highlights of these roadway capacity projects include the following.

### *Committed Projects (2020–2024)*

- Collier Pkwy: Bell Lake Rd to Parkway Blvd, widen to 4 lanes
- Clinton Ave Ext: from Uradco Pl (east of I-75) to Fort King Rd, construct new/widen to 4 lanes
- Little Rd: from Trinity Blvd to SR-54, widen to 6 lanes
- Overpass Rd and I-75 Interchange
- Ridge Rd: from Moon Lake Rd to US-41, construct 4 new lanes and add interchange at Suncoast Pkwy
- SR-52: from Suncoast Pkwy to US-41, widen to 4 lanes
- Trinity Blvd: from Little Rd to SR-54, widen to 4 lanes
- US-41: from N of Connerton Blvd to S of SR-52, widen to 4 lanes
- Wesley Chapel Blvd: from SR-56 to Oakley Blvd, widen to 6 lanes

*Recently completed SR-56 extension to US-301 provides continuous corridor across southern Pasco County.*

*FDOT Diverging Diamond Interchange currently under construction at SR-56 and I-75.*

### *East/West Roadway Projects (2025–2045)*

- N County Line Rd: from East Rd to Shady Hills Rd, widen to 4 lanes
- Overpass Rd Ext: from I-75 to US-301, construct new 4 lanes
- S County Line Rd: from Dale Mabry Hwy to I-75, widen to 4 lanes
- SR-52: from US-41 to Old Pasco Rd, widen to 4 lanes
- Tower Rd: from Gunn Hwy to Sunlake Blvd, construct new/widen to 4 lanes
- Zephyrhills West Extension: from SR-54 to US-301 construct new/widen to 4 lanes
- Construction of several developer roadways in central and east portion of county

### *North/South Roadway Projects (2025 – 2045)*

- Moon Lake Rd: from Ridge Rd to S of SR-52, widen to 4 lanes
- Shady Hills Rd: from SR-52 to County Line Rd, widen to 4 lanes
- Starkey Blvd: from Rangeland Blvd to Decubellis Rd, widen to 4 lanes
- Old Pasco Rd from Overpass Rd to SR-52, widen to 4 lanes
- US 98, re-align to connect to Clinton Rd Extension at US-301
- US-301, redesign one-way pair in Zephyrhills; reduce to 2 lanes one-way on 6th St and Gall Blvd
- US-301: from Eiland Blvd to Kossik Rd widen to 6 lanes
- Construction of several developer roadways in central and east portion of county

### *Future Corridor Improvements (2020–2045)*

- SR-54/56, alternative improvements within SR-54/56 corridor currently being evaluated as part of Vision 54/56 assessment; future corridor alternatives could include but are not necessarily limited to premium transit improvements, overpasses, and/or elevated lanes; future corridor assessment will include significant public engagement regarding alternative improvements to the SR-54/56 corridor
- US-19, corridor improvements based on future studies and/or recommendations consistent with vision of adopted West Market Plan

### *Constrained Roadways*

There are no formally-adopted constrained roadways in the Pasco County Comprehensive Plan; as a result, constrained roadways are not identified in the MOBILITY 2045 LRTP. It should be noted, however, that the City of St. Leo Comprehensive Plan constrains SR-52 to a 2-lane undivided road in the vicinity of St. Leo University.

During the development of the MOBILITY 2040 LRTP, the MPO Board adopted a series of policy statements intended to guide future transportation decisions and funding. The following policy regarding the maximum number of general purpose lanes was adopted on June 12, 2014:

- **Maximum Number of Lanes on Non-Freeway/Expressway Road –** Future road improvements on non-freeway/expressway roads shall be limited to a maximum of six general purpose through-lanes. Exceptions may be made on roads that necessitate special use or auxiliary lanes.

## Roadway Maintenance

- State roads – although not specifically reflected in the MOBILITY 2045 Plan, FDOT has committed to include sufficient funding in the 2045 Revenue Forecast to meet the following statewide objectives and policies:
    - Resurfacing Program – ensure that 80% of State Highway System (SHS) pavement meets Department standards.
    - Bridge Program – ensure that 90% of FDOT-maintained bridges meet Department standards while keeping all FDOT-maintained bridges open to the public safe.

  - Operations and Maintenance Program – Achieve 100% of acceptable maintenance condition standard on the State Highway System
  - Product Support – reserve funds for Product Support required to construct improvements (funded with the forecast capacity funds) in each district and metropolitan area.
  - Administration – administer the state transportation program.
- County roads – Pasco County recognizes the importance of increasing its investment in highway maintenance and is allocating the 6-cent Local Option Fuel Tax to ensure that additional local resources are available to meet the maintenance needs of the county road network. Revenues collected from a Countywide Tax Increment Finance policy is allocated for capital roadway maintenance activities, as shown previously in Table ES-3.

## Transit Projects

The 2045 Cost Affordable Transit Element includes significant service and facility improvements throughout Pasco County and was developed using the following:

- Access Pasco Transit Development Plan, 2019–2028 (September 2018)
- Transit Needs Assessment through 2045
- Significant input from the public, MPO committees, and the MPO Board

Major elements of the 2045 Cost Affordable Transit Element are summarized below.

### *Improvements to Existing Local Bus (2020–2045)*

- Increase service frequency to 15 minutes on Route 19.
- Increase service frequency to 30 minutes on all other existing routes.
- Expand 3 hours of service at night on existing routes.
- Add Sunday service on existing routes.

### *New Service Expansion (2020–2045)*

#### Wiregrass Hopper

- Shady Hills Connector
- St. Leo University Connector
- Regional I-75 Express
- US-19 Express
- Regional Rapid Transit (I-275)
- Land O' Lakes Circulator
- SR-54 Cross County Express
- SR-52 Cross County Express
- Starkey Connector

### *Transit Infrastructure/Access (2020–2045)*

- Addition of 4 "super stops" to serve as complementary facilities for transit use support key transfer locations

- Purchase of 236 new transit vehicles for replacement and expansion
- Expansion of demand-response services to provide complementary paratransit services
- Bus bays, bus shelters, benches, and signs to accommodate new transit service expansion, address ADA accessibility and safety.

### *Transit System Constraints*

There are no formally-adopted constraints on the transit system contained in the Comprehensive Plan for Pasco County or its municipalities; as a result, constrained transit needs are not identified in the MOBILITY 2045 LRTP.

## Walk/Bike Program

Developing an active (walking and cycling) transportation system in Pasco County is built on completing the existing network of sidewalk, trails, bike lanes, and paths in a manner that recognizes the unique needs of the users and function of transportation facilities. Highlights of the approach proposed in the MOBILITY 2045 LRTP include the following:

- All road widening and construction projects in the LRTP will include appropriate bicycle facilities and sidewalks.
- Continue implementation of bicycle and sidewalk safety projects currently prioritized for implementation.
- Use Pasco County's recently-updated roadway cross-section designs, which include appropriate bike/ped facilities, when filling gaps in the system or resurfacing/rehabilitation existing roadways.
- Identify opportunities for local road connections in established areas as alternatives to busy and often unsafe arterials.
- Prepare a comprehensive bike/ped plan that would consider opportunities, constraints, and evaluation of alternative solutions or projects specific to the needs and vision of the County's Market Areas.
- Prioritize identified projects based on technical criteria for implementation.
- Coordinate with FDOT, County. and City staff for using the $183 million set aside in the LRTP through 2045 for walk/bike.

## Congestion Management Program

As a follow-up activity to the MOBILTIY 2045 LRTP, the MPO will be updating the recommendations of the Congestion Management Process considering the following:

- Continued implementation of Advanced Traffic Management Systems (ATMS) and Variable Message Signs on SR-54/56 from US-19 to US-301.
- Continued implementation of ATMS on US-19 from the Pinellas County line to CR 1, Little Rd.
- Implementation of ITS improvements on the corridors illustrated in Figure 4-5 along with providing opportunities to further explore connected vehicle technologies.

- Safety improvements on corridors and road segments identified with high crash rates and strategies included in the Pasco Countywide Pedestrian and Bicycle Safety Action Plan.
- Identification of future technology projects that provide safety and mobility benefits for the users of the transportation system.

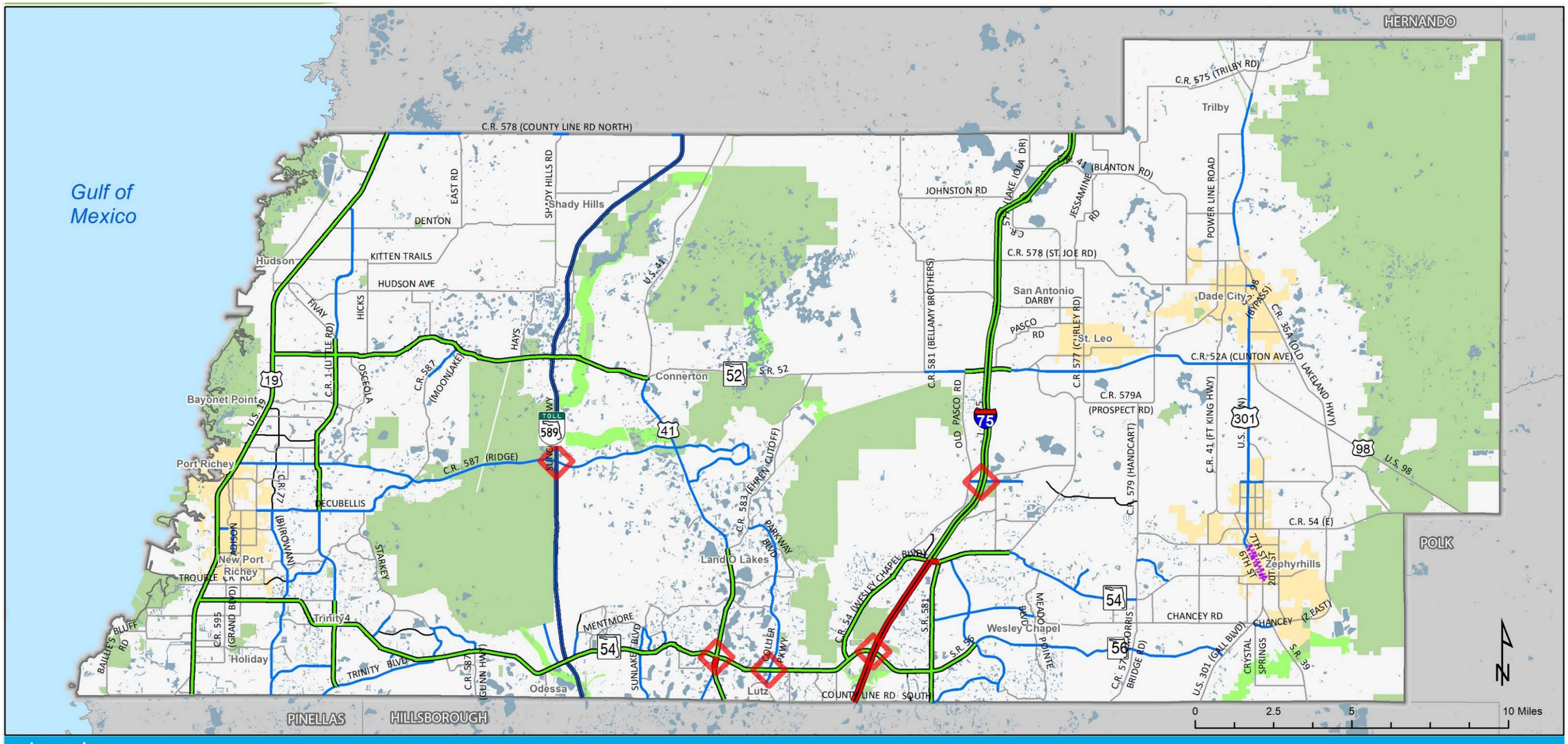
The MOBILITY 2045 LRTP has set aside $273 million for implementation of ITS and CMP improvements through 2045 as recommended through the Congestion Management Process. Funding of these projects and strategies will be coordinated with FDOT, County, and City staff for implementation.

## Maps and Tables

The following pages include maps and tables illustrating the projects included in the Cost Affordable MOBILITY 2045 LRTP:

- Map ES-2 illustrates the transportation network resulting from completion of committed roadway capacity projects by 2024.
- Map ES-3 shows 2045 cost affordable roadway number of lanes and cost affordable projects.
- Table ES-8 is a detailed listing of roadway project costs and revenues for the Cost Affordable Plan.
- 4 shows the 2045 cost affordable transit system in Pasco County.
- Table ES-9 shows MOBILITY 2045 Cost Affordable Transit Operating and Capital Costs Summary for 2020–2045.
- Table ES-10 shows the 25-Year Cost Affordable Transit Financial Plan.
- Map ES-5 illustrates the multimodal network of bicycle and pedestrian facilities and system gaps on the arterial and collector roadway system.
- Map ES-6 shows existing and planned ITS corridors and potential system expansions for consideration through the CMP.

**Map ES-2: Existing and Committed Roadway Number of Lanes (2024)**

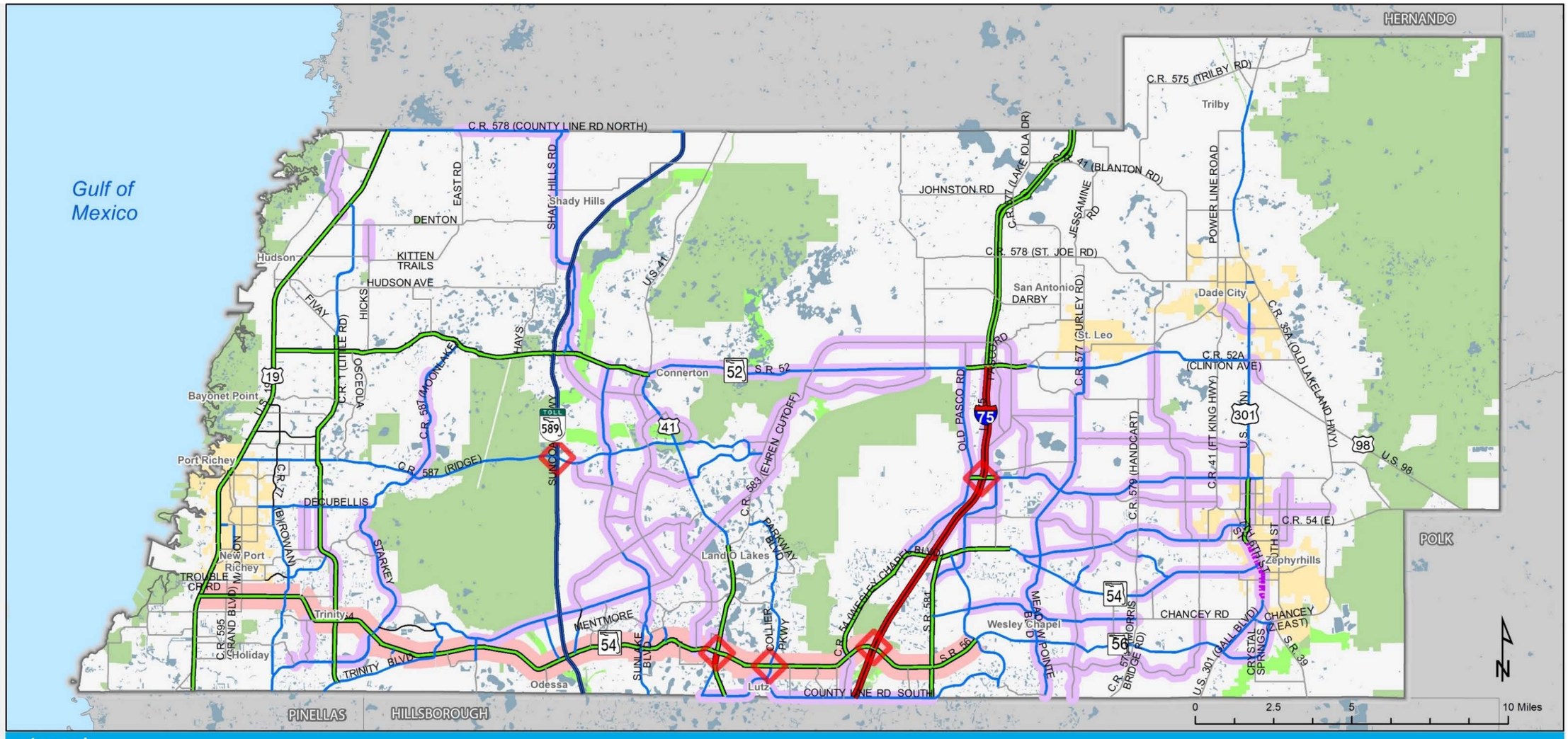



**Legend**

**Number of Lanes**

- 2 Lane Undivided
- 2 Lane Divided
- 2 Lane One Way
- 4 Lane Divided
- 4 Lane Freeway
- 6 Lane Divided
- 6 Lane Freeway
- 8 Lane Divided
- 8 Lane Freeway
- 10 Lane Freeway
- City Limits
- New / Improved Interchange
- Critical Linkages
- Parks and Publicly Owned Land

**Map ES-3: Roadway Capacity Improvements and Number of Lanes (2025–2045)**




**Legend**

**Number of Lanes**
- 2 Lane Undivided
- 2 Lane Divided
- 2 Lane One Way
- 4 Lane Divided
- 4 Lane Freeway
- 6 Lane Divided
- 6 Lane Freeway
- 8 Lane Divided
- 8 Lane Freeway
- 10 Lane Freeway
- City Limits
- New / Improved Interchange
- 2025-2045 Improvement
- SR 54/56 Corridor Improvements
- Critical Linkages
- Parks and Publicly Owned Land

**$632.8m is set aside for various studies and improvements along the SR 54/56 Corridor**

## Table ES-8: Roadway Project Cost and Revenues (2019–2045)

**State / Federal Revenue Balancing (YOE)**

| | 2025 | 2026-2030 | 2031-2035 | 2036-2045 | Total |
|---|---|---|---|---|---|
| Strategic Intermodal System (SIS) Available Revenues | $0 | $259,731,143 | $62,867,000 | $525,234,344 | $847,832,487 |
| Total Amount Spent | $0 | $259,731,143 | $62,867,000 | $525,234,344 | $847,832,487 |
| Total Amount Remaining | $0 | $0 | $0 | $0 | $0 |
| Other State Roadways Preliminary Engineering (OAPE) | $5,128,000 | $31,160,000 | $33,624,000 | $69,960,000 | $139,872,000 |
| Total Amount Spent | $0 | $0 | $2,804,601 | $24,249,360 | $27,053,961 |
| Total Amount Remaining | $5,128,000 | $31,160,000 | $30,819,399 | $45,710,640 | $112,818,039 |
| Other State Roadways Right-of-Way & Construction (OARC) | $23,320,000 | $136,648,000 | $147,824,000 | $307,992,000 | $615,784,000 |
| Total Amount Spent | $23,320,000 | $136,648,000 | $147,824,000 | $307,992,000 | $615,784,000 |
| Total Amount Remaining | $0 | $0 | $0 | $0 | $0 |
| Federal Trasnportion Management Area (TMA) | $5,625,000 | $27,160,000 | $26,470,000 | $41,750,000 | $101,005,000 |
| Total Amount Spent | $0 | $24,715,091 | $25,000,000 | $39,909,169 | $89,624,260 |
| Total Amount Remaining | $5,625,000 | $2,444,909 | $1,470,000 | $1,840,831 | $11,380,740 |
| State Transportation Regional Incentive Program (TRIP) | $740,000 | $5,500,000 | $6,100,000 | $12,520,000 | $24,860,000 |
| Total Amount Spent | $740,000 | $5,500,000 | $6,100,000 | $12,520,000 | $24,860,000 |
| Total Amount Remaining | $0 | $0 | $0 | $0 | $0 |

**County Revenue Balancing (YOE)**

| | 2025 | 2026-2030 | 2031-2035 | 2036-2045 | Total |
|---|---|---|---|---|---|
| General County Transportation Funds (CoGen) | $75,246,126 | $410,631,659 | $487,419,248 | $1,224,290,632 | $2,197,587,666 |
| Total Amount Spent | $71,323,103 | $425,312,336 | $498,327,798 | $1,202,282,431 | $2,197,245,668 |
| Total Amount Remaining | $3,923,023 | -$14,680,677 | -$10,908,549 | $22,008,201 | $341,998 |
| County Mobility Fees for SIS (CoMF) | $4,110,600 | $19,639,100 | $19,815,900 | $37,988,600 | $81,554,200 |
| Total Amount Spent | $4,110,600 | $19,639,100 | $19,815,900 | $37,988,600 | $81,554,200 |
| Total Amount Remaining | $0 | $0 | $0 | $0 | $0 |
| Village of Pasadena Hills (CoVOPH) | $1,230,000 | $7,430,000 | $9,720,000 | $27,240,000 | $45,620,000 |
| Total Amount Spent | $471,240 | $6,905,688 | $8,524,211 | $0 | $15,901,140 |
| Total Amount Remaining | $758,760 | $524,312 | $1,195,789 | $27,240,000 | $29,718,860 |
| Other (TBD) Revenues | $10,448,302 | $0 | $0 | $0 | $10,448,302 |
| Total Amount Spent | $10,448,302 | $0 | $0 | $0 | $10,448,302 |
| Total Amount Remaining | $0 | $0 | $0 | $0 | $0 |

**Developer Revenue Balancing (YOE)**

| | | | | | |
|---|---|---|---|---|---|
| Developer Revenues | $36,484,210 | $399,308,774 | $632,004,211 | $678,136,900 | $1,745,934,095 |
| Total Amount Spent | $36,484,210 | $399,308,774 | $632,004,211 | $678,136,900 | $1,745,934,095 |
| Total Amount Remaining | $0 | $0 | $0 | $0 | $0 |

| Project Number | On Street | From | To | 2019 Lanes | 2045 Lanes | Project Development & Environment / Design | | | Right of Way | | | Construction | | | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Source | Timing | Cost | Source | Timing | Cost | Source | Timing | Cost | |
| **SIS Roadways** | | | | | | | | | | | | | | | |
| 3200 | I-75 / I-275 | S of County Line Road | SR 56 | Interchange Modification | | SIS | 2019 - 2024 | $7,582,999 | SIS | 2019 - 2024 | $2,189,100 | SIS | 2026 - 2030 | $69,809,191 | $79,581,290 |
| 3023 | I-75 | SR 56 | Wesley Chapel Blvd | 8F | 10F | SIS | 2031 - 2035 | $12,019,000 | | Unfunded | $0 | | Unfunded | $0 | $12,019,000 |
| 3022 | I-75 | Wesley Chapel Blvd | SR 52 | 6F | 8F | SIS | 2036 - 2045 | $23,754,000 | SIS | 2036 - 2045 | $10,437,000 | SIS | 2036 - 2045 | $258,441,344 | $292,632,344 |
| 3021 | I-75 | SR 52 | Hernando County Line | 6F | 8F | SIS | 2031 - 2035 | $4,848,000 | SIS | 2036 - 2045 | $15,002,000 | | Unfunded | $0 | $19,850,000 |
| 3202 | Ridge Road @ Suncoast Pkwy | | | | | | Completed | | | Completed | | SIS | 2019 - 2024 | $12,654,973 | $12,654,973 |
| 3203 | US 19 | Pinellas County Line | Hernando County Line | Corridor / Int. Improvements | | SIS | 2031 - 2035 | $1,000,000 | | Unfunded | | | Unfunded | | $1,000,000 |
| 3020 | Suncoast Pkwy | Hillsborough County Line | SR 52 | 4F | 6F | SIS | 2019 - 2024 | $23,750,000 | | Unfunded | | | Unfunded | | $23,750,000 |
| **State Roadways** | | | | | | | | | | | | | | | |
| 3100a | Clinton Ave Ext (New SR 52) | Urdaco Pl | Fort King Rd | 00 / 2U | 4D | | Completed | | | Completed | | | Under Construction | | $0 |
| 3201 | SR 52 | US 41 (Land O' Lakes Blvd) | CR 581/Bellamy Brothers | 2U | 4D | | Completed | | OARC | 2019 - 2024 | $23,592,360 | OARC | 2026 - 2030 | $109,078,089 | $132,670,449 |
| 3007 | SR 52 | Urdaco Pl | Clinton Ave Ext | 4D | 6D | OAPE | 2031 - 2035 | $2,804,601 | | Completed | | OARC | 2036 - 2045 | $16,859,221 | $19,663,822 |
| 3076 | SR 54 | Morris Bridge Rd | US 301 | 2U | 4D | OAPE | 2036 - 2045 | $24,249,360 | OARC | 2036 - 2045 | $110,235,384 | OARC | 2036 - 2045 | $110,235,384 | $244,720,128 |
| 3111 | SR 56 Extension | US 301 | SR 39 | 00 | 4D | OARC | 2025 | $7,903,525 | OARC | 2031 - 2035 | $31,797,898 | OARC | 2036 - 2045 | $61,893,994 | $116,595,417 |
| | | | | | | | | | TMA | 2031 - 2035 | $15,000,000 | | | | |
| 3018a | US 301 (Gall Blvd) | SR 56 | SR 39 | 2U | 4D | OAPE | 2019 - 2024 | $3,146,468 | OARC | 2019 - 2024 | $20,625,740 | OARC | 2031 - 2035 | $36,529,208 | $60,301,416 |
| 3077 | US 301 (6th, 7th, Gall) | SR 39 | CR 54 | 3O | 2O | OAPE | 2019 - 2024 | $7,032,239 | OARC | 2019 - 2024 | $15,979,630 | OARC | 2031 - 2035 | $69,966,983 | $92,978,852 |
| 3019 | US 301 | S of CR 54/Eiland | Kossik Rd | 4D | 6D | OAPE | 2019 - 2024 | $3,885,108 | OARC | 2025 | $11,375,900 | OARC | 2026 - 2030 | $13,284,577 | $41,830,162 |
| | | | | | | | | | | | | TMA | 2026 - 2030 | $13,284,577 | |
| 3209 | US 98 Realignment | @ Clinton Ave | | 00 | 2U | TMA | 2026 - 2030 | $505,006 | TMA | 2026 - 2030 | $3,157,994 | TMA | 2026 - 2030 | $7,767,514 | $11,430,514 |

| Project Number | On Street | From | To | 2019 Lanes | 2045 Lanes | Project Development & Environment / Design | | | Right of Way | | | Construction | | | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Source | Timing | Cost | Source | Timing | Cost | Source | Timing | Cost | |
| **SR 54/56 Corridor Improvements** | | | | | | | | | | | | | | | |
| 3188 | SR 54 | US 41 | | Intersection / Interchange | | SIS | 2019 - 2024 | $8,505,130 | SIS | 2019 - 2024 | $28,615,500 | SIS | 2026 - 2030 | $189,921,952 | $227,042,582 |
| 3189 | SR 54 | Collier Pkwy | | Intersection / Interchange | | SIS | 2031 - 2035 | $15,000,000 | SIS | 2031 - 2035 | $30,000,000 | SIS | 2036 - 2045 | $217,600,000 | $262,600,000 |
| | **Future Corridor Improvements**<br><br>Alternative improvements within the SR 54/56 corridor will be evaluated as part of ongoing Vision 54/56 corridor assessment and will include, but not necessarily be limited to, premium transit improvements, overpasses, and/or elevated lanes, and alternative intersection designs. In addition, future corridor assessment will include significant public engagement regarding alternative improvements to the SR 54/56 corridor. | | | | | | | | | | | CoGen | 2036 - 2045 | $10,000,000 | $10,000,000 |
| | | | | | | | | | | | | CoMF | 2025 | $4,110,600 | $4,110,600 |
| | | | | | | | | | | | | CoMF | 2026 - 2030 | $19,639,100 | $19,639,100 |
| | | | | | | | | | | | | CoMF | 2031 - 2035 | $19,815,900 | $19,815,900 |
| | | | | | | | | | | | | CoMF | 2036 - 2045 | $37,988,600 | $37,988,600 |
| | | | | | | | | | | | | OARC | 2025 | $4,040,575 | $4,040,575 |
| | | | | | | | | | | | | OARC | 2026 - 2030 | $14,285,334 | $14,285,334 |
| | | | | | | | | | | | | OARC | 2031 - 2035 | $9,529,911 | $9,529,911 |
| | | | | | | | | | | | | OARC | 2036 - 2045 | $8,768,018 | $8,768,018 |
| | | | | | | | | | | | | TMA | 2031 - 2035 | $10,000,000 | $10,000,000 |
| | | | | | | | | | | | | TMA | 2036 - 2045 | $5,000,000 | $5,000,000 |
| **County Roads** | | | | | | | | | | | | | | | |
| 3133 | 20th St | CR 54 | Pretty Pond Rd | 00 | 2U | CoGen | 2036 - 2045 | $1,064,323 | CoGen | 2036 - 2045 | $6,655,618 | CoGen | 2036 - 2045 | $16,370,392 | $24,090,333 |
| 3117 | 23rd St | North Ave | Otis Allen Rd | 00 | 2U | CoGen | 2036 - 2045 | $2,120,774 | CoGen | 2036 - 2045 | $13,262,024 | CoGen | 2036 - 2045 | $32,619,737 | $48,002,536 |
| 3092 | Boyette Road Realignment | SR 54 | Boyette Rd | 00 | 4D | CoGen | 2036 - 2045 | $3,250,429 | CoGen | 2036 - 2045 | $20,314,073 | CoGen | 2036 - 2045 | $49,971,466 | $73,535,968 |
| 3167 | Boyette Rd | Boyette Rd Realignment | Overpass Rd | 2U | 4D | CoGen | 2036 - 2045 | $1,303,853 | CoGen | 2036 - 2045 | $8,148,639 | CoGen | 2036 - 2045 | $20,045,193 | $29,497,686 |
| 3106a | Boyette Rd Ext | Overpass Rd | McKendree Rd | 00 | 2U | CoGen | 2031 - 2035 | $1,979,335 | CoGen | 2031 - 2035 | $12,377,541 | CoGen | 2031 - 2035 | $30,444,232 | $44,801,107 |
| 3014a | Bruce B Downs Loop Rd | SR 581 | Wiregrass Ranch Blvd | 00 | 4D | CoGen | 2026 - 2030 | $605,370 | CoGen | 2026 - 2030 | $3,785,427 | CoGen | 2026 - 2030 | $9,312,492 | $13,703,290 |
| 3014b | Bruce B Downs Loop Rd | Wiregrass Ranch Blvd | SR 54 | 00 | 4D | CoGen | 2036 - 2045 | $869,442 | CoGen | 2036 - 2045 | $5,436,690 | CoGen | 2036 - 2045 | $13,374,749 | $19,680,882 |
| 3080 | Chancey Rd / Ext | Mansfield Rd | Morris Bridge Rd | 00 | 4D | CoGen | 2036 - 2045 | $6,333,824 | CoGen | 2036 - 2045 | $39,605,877 | CoGen | 2036 - 2045 | $97,434,020 | $143,373,720 |
| 3113 | Coats Rd | Chancey Rd | Oldwoods Ave | 00 | 2U | CoGen | 2031 - 2035 | $1,289,870 | CoGen | 2031 - 2035 | $8,066,047 | CoGen | 2036 - 2045 | $26,239,381 | $35,595,297 |
| 3067a | Collier Parkway | S of Bell Lake Rd | Hale Rd | 4D | 4D | | Completed | | | Completed | | CoGen | 2019 - 2024 | $10,217,488 | $10,217,488 |
| 3067b | Collier Parkway | Hale Rd | Parkway Blvd | 2U | 4D | | Completed | | | Completed | | CoGen | 2019 - 2024 | $6,685,250 | $6,685,250 |
| 3028a | CR 578 (County Line Rd) | East Rd | Shady Hills Rd | 2U | 4D | CoGen | 2036 - 2045 | $2,922,480 | CoGen | 2036 - 2045 | $18,279,030 | CoGen<br>TRIP | 2036 - 2045<br>2036 - 2045 | $32,440,190<br>$12,520,000 | $66,161,700 |
| 3069 | County Line Rd | Dale Mabry | US 41 (Land O' Lakes Blvd) | 2U | 4D | CoGen | 2031 - 2035 | $521,511 | CoGen | 2031 - 2035 | $3,261,865 | CoGen | 2036 - 2045 | $10,611,167 | $14,394,543 |
| 3010 | County Line Rd | US 41 (Land O' Lakes Blvd) | SR 581 | 2U | 4D | CoGen | 2031 - 2035 | $4,845,960 | CoGen | 2031 - 2035 | $30,309,683 | CoGen | 2036 - 2045 | $119,100,371 | $154,256,014 |
| 3152a | CR 539 Ext (Overpass Rd / Kossik Rd) | CR 579 (Handcart Rd) | US 301 | 00 | 2U | CoGen | 2031 - 2035 | $1,821,250 | CoGen | 2031 - 2035 | $1,894,100 | CoGen | 2031 - 2035 | $20,944,375 | $24,659,725 |
| 3152b | CR 539 Ext (Overpass Rd / Kossik Rd) | CR 579 (Handcart Rd) | US 301 | 2U | 4D | CoGen | 2031 - 2035 | $1,821,250 | CoGen | 2031 - 2035 | $1,894,100 | CoGen | 2036 - 2045 | $27,700,625 | $31,415,975 |
| 3032 | CR 587 (Moon Lake) | Ridge Rd | S of SR 52 | 2U | 4D | | Completed | | CoGen | 2019 - 2024 | $2,000,000 | CoGen | 2026 - 2030 | $70,974,942 | $72,974,942 |
| 3098 | Curley Rd (Realignment) | SR 54 | Curley Rd | 00 | 4D | CoGen | 2025 | $1,390,234 | CoGen | 2025 | $8,688,488 | CoGen | 2031 - 2035 | $27,839,021 | $37,917,743 |
| 3099 | Curley Rd | Meadow Pointe Blvd Ext. | Overpass Rd | 2U | 4D | CoGen | 2019 - 2024 | $684,000 | CoVOPH | 2025 | $471,240 | CoGen<br>CoVOPH | 2026 - 2030<br>2026 - 2030 | $10,600,000<br>$5,600,000 | $17,355,240 |
| 3103 | Curley Rd | Overpass Rd | Clinton Ave Ext | 2U | 4D | CoGen | 2019 - 2024 | $3,116,000 | CoGen | 2025 | $2,146,760 | CoGen | 2026 - 2030 | $73,800,000 | $79,062,760 |
| 3173 | Daughtry Rd ext | Wire Rd | Old Lakeland Highway | 00 | 2U | CoGen | 2036 - 2045 | $2,269,623 | CoGen | 2036 - 2045 | $14,192,824 | TMA | 2036 - 2045 | $34,909,169 | $51,371,616 |
| 3206 | Decubellis Road (III) | Little Road | Starkey Blvd | 2U | 4D | CoGen | 2019 - 2024 | $250,000 | CoGen | 2019 - 2024 | $358,378 | CoGen | 2019 - 2024 | $10,098,424 | $10,706,802 |
| 3205 | Decubellis Road (II) | Starkey Blvd | Town Center | 2U | 4D | | Completed | | CoGen | 2019 - 2024 | $215,000 | CoGen | 2019 - 2024 | $10,000,116 | $10,215,116 |
| 3095 | Eiland Blvd | CR 579 (Handcart Rd) | Fort King Hwy | 2U | 4D | CoGen | 2031 - 2035 | $2,893,232 | CoGen | 2036 - 2045 | $23,893,400 | CoGen | 2036 - 2045 | $58,780,601 | $85,567,233 |
| 3137 | Eiland Blvd | Fort King Hwy | Gall Blvd | 2U | 4D | CoGen | 2036 - 2045 | $206,480 | CoGen | 2036 - 2045 | $1,289,292 | CoGen | 2036 - 2045 | $3,171,813 | $4,667,586 |
| 3170 | Greenslope Dr Ext | Kossik Rd | Bailey Hill Rd | 00 | 2U | CoGen | 2031 - 2035 | $534,668 | CoGen | 2031 - 2035 | $3,337,392 | CoGen | 2031 - 2035 | $8,211,759 | $12,083,819 |
| 3179 | Hicks Rd | Denton Ave | New York Ave | 00 | 2U | CoGen | 2026 - 2030 | $685,415 | CoGen | 2031 - 2035 | $5,032,993 | CoGen | 2031 - 2035 | $12,379,326 | $18,097,734 |
| 3132 | Keefer Rd | Curley Rd | Fort King Rd | 00 | 2U | CoGen | 2036 - 2045 | $4,827,391 | CoGen | 2036 - 2045 | $30,187,531 | CoGen | 2036 - 2045 | $74,250,307 | $109,265,230 |
| 3171 | Keefer Rd ext / Bailey Hill Rd | Fort King Rd | Gall Blvd | 00 | 2U | CoGen | 2036 - 2045 | $1,093,616 | CoGen | 2036 - 2045 | $6,838,794 | CoGen | 2036 - 2045 | $16,820,935 | $24,753,344 |
| 3207 | Little Road | Trinity Blvd | S of SR 54 | 4D | 6D | | 2019 - 2024 | $211,361 | | Completed | | CoGen | 2019 - 2024 | $5,872,388 | $6,083,749 |
| 3003 | Little Rd | Old County Rd 54 | Decubellis Rd | 4D | 6D | CoGen | 2031 - 2035 | $2,724,885 | CoGen | 2031 - 2035 | $17,020,931 | CoGen | 2031 - 2035 | $41,866,309 | $61,612,125 |
| 3104a | McKendree Rd / Kenton Rd Ext | Overpass Rd | SR 52 | 00 | 2U | Dev | 2031 - 2035 | $3,012,093 | Dev | 2031 - 2035 | $29,985,317 | Dev | 2031 - 2035 | $46,329,145 | $79,326,556 |
| 3144a | Meadow Pointe Blvd | Hillsborough / Pasco County Line Rd | Oldwoods Ave | 2U | 4D | CoGen | 2031 - 2035 | $730,112 | | Completed | | CoGen | 2031 - 2035 | $11,215,490 | $11,945,602 |
| 3144b | Meadow Pointe Blvd | Oldwoods Ave | SR-56 | 2U | 4D | CoGen | 2031 - 2035 | $333,312 | | Completed | | CoGen | 2031 - 2035 | $5,120,115 | $5,453,427 |
| 3097 | Meadow Pointe Blvd | SR 56 | SR 54 | 2U | 4D | CoGen | 2031 - 2035 | $2,478,528 | CoGen | 2019 - 2024 | $9,984,693 | CoGen | 2036 - 2045 | $50,355,241 | $62,818,461 |
| 3163 | Morgan Rd / Hunt Rd | SR 54 | US 41 (Land O' Lakes Blvd) | 00 | 2U | CoGen | 2036 - 2045 | $920,915 | CoGen | 2036 - 2045 | $5,758,844 | CoGen | 2036 - 2045 | $14,164,653 | $20,844,412 |
| 3088 | Morningside Drive | Fort King Rd | US 301 | 00 | 2U | CoGen | 2019 - 2024 | $570,838 | CoGen | 2019 - 2024 | $3,569,670 | Other (TBD) | 2025 | $10,448,302 | $14,588,810 |
| 3118 | North Ave | 21st St | 23rd St | 00 | 2U | CoGen | 2036 - 2045 | $275,561 | CoGen | 2036 - 2045 | $1,723,189 | CoGen | 2036 - 2045 | $4,238,416 | $6,237,166 |
| 3075 | Old Pasco Rd | Wesley Chapel Blvd | SR 52 | 2U | 4D | CoGen<br>TRIP | 2025<br>2025 | $3,614,564<br>$740,000 | CoGen | 2026 - 2030 | $28,970,472 | CoGen<br>TRIP | 2026 - 2030<br>2026 - 2030 | $66,586,934<br>$5,500,000 | $105,411,969 |

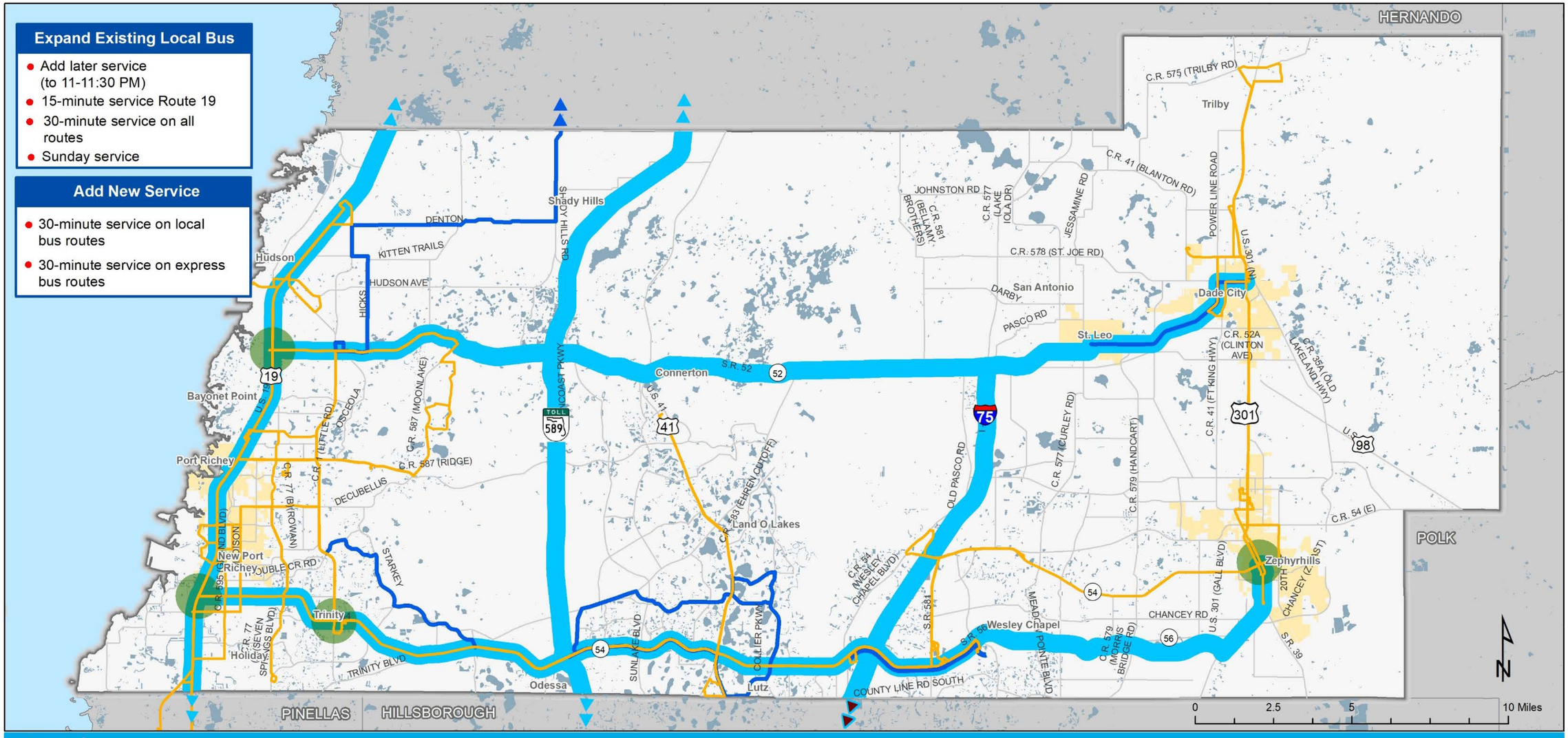
| Project Number | On Street | From | To | 2019 Lanes | 2045 Lanes | Project Development & Environment / Design | | | Right of Way | | | Construction | | | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Source | Timing | Cost | Source | Timing | Cost | Source | Timing | Cost | |
| **County Roads Continued** | | | | | | | | | | | | | | | |
| 3039 | Osteen Rd | Plathe Rd | De Cubellis Rd | 00 | 2U | CoGen | 2036 - 2045 | $1,453,243 | CoGen | 2036 - 2045 | $9,087,693 | CoGen | 2036 - 2045 | $22,352,407 | $32,893,343 |
| 3015a | Overpass Rd | Old Pasco Rd | Boyette Rd | 2U | 4D | CoGen | 2019 - 2024 | $2,670,466 | CoGen | 2019 - 2024 | $6,253,687 | CoGen | 2019 - 2024 | $62,830,072 | $71,754,225 |
| 3015b | Overpass Rd | Old Pasco Rd | Boyette Rd | 4D | 6D | CoGen | 2036 - 2045 | $975,767 | | Completed | | CoGen | 2036 - 2045 | $14,992,113 | $15,967,881 |
| 3017b | Overpass Rd Ext | Mckendree Rd/Kenton Rd Ext | Epperson Blvd | 00 | 4D | CoGen | 2019 - 2024 | $1,325,000 | CoGen | 2025 | $1,639,820 | CoGen | 2025 | $18,132,625 | $21,097,445 |
| 3017c | Overpass Rd Ext | Epperson Blvd | Sunshine Rd | 2D | 4D | CoGen | 2019 - 2024 | $1,157,120 | CoGen | 2025 | $8,598,012 | CoGen | 2025 | $21,152,131 | $30,907,263 |
| 3017d | Overpass Rd Ext | Sunshine Rd | Handcart Rd | 00 | 4D | CoGen | 2019 - 2024 | $1,325,000 | CoVOPH | 2031 - 2035 | $2,135,900 | CoGen | 2031 - 2035 | $23,618,125 | $27,079,025 |
| 3038 | Perrine Ranch Rd Extn | 7 Spring Blvd | Trinity Oaks Blvd | 00 | 2U | CoGen | 2036 - 2045 | $189,851 | CoGen | 2036 - 2045 | $1,185,044 | CoGen | 2036 - 2045 | $2,915,838 | $4,290,732 |
| 3211 | Prospect Rd | Highland Blvd | Clinton Ave Ext | 0 | 2U | CoVOPH | 2026 - 2030 | $1,305,688 | CoGen | 2026 - 2030 | $0 | CoVOPH | 2031 - 2035 | $6,388,311 | $7,694,000 |
| 3053 | Ridge Rd Ext | Suncoast Pkwy | US 41 (Land O' Lakes Blvd) | 00 | 4D | | Completed | | CoGen | 2019 - 2024 | $2,000,000 | CoGen | 2019 - 2024 | $46,233,892 | $48,233,892 |
| 3048 | Shady Hills Rd | SR 52 | Pasco / Hernando County Line | 2U | 4D | CoGen | 2036 - 2045 | $7,089,603 | CoGen | 2036 - 2045 | $44,342,837 | CoGen | 2036 - 2045 | $109,068,280 | $160,500,720 |
| 3161 | South Branch Ranch Rd | SR 54 | Tower Rd Ext | 00 | 4D | Dev | 2019 - 2024 | $1,069,061 | Dev | 2019 - 2024 | $6,681,268 | Dev | 2019 - 2024 | $16,435,540 | $24,185,869 |
| 3036 | Starkey Blvd Extn | SR 54 | Little Rd | 00 | 4D | CoGen | 2031 - 2035 | $1,552,114 | CoGen | 2031 - 2035 | $9,705,486 | CoGen | 2031 - 2035 | $23,876,367 | $35,133,968 |
| 3034a | Starkey Blvd | Tower Road | River Crossing Blvd | 2U | 4D | CoGen | 2031 - 2035 | $2,253,824 | | Completed | | CoGen | 2031 - 2035 | $34,621,730 | $36,875,554 |
| 3034b | Starkey Blvd | River Crossing Blvd | De Cubellis Rd | 2U | 4D | CoGen | 2019 - 2024 | $1,878,762 | | Completed | | CoGen | 2026 - 2030 | $24,644,400 | $26,523,162 |
| 3066 | Sunlake Blvd | Mentmore Blvd | Lake Patience Rd | 2U | 4D | CoGen | 2026 - 2030 | $769,501 | | Completed | | CoGen | 2026 - 2030 | $11,830,150 | $12,599,651 |
| 3154 | Sunlake Blvd | Lake Patience Rd | Tower Rd | 2U | 4D | CoGen | 2025 | $259,834 | | Completed | | CoGen | 2026 - 2030 | $4,427,424 | $4,687,258 |
| 3049a | SunLake Blvd | Tower Rd Ext | Bexley Ranch Blvd | 00 | 4D | Dev | 2025 | $1,352,019 | Dev | 2025 | $14,346,521 | Dev | 2025 | $20,785,671 | $36,484,210 |
| 3049c | SunLake Blvd | Bexley Ranch Blvd | New Collector Road "A" | 00 | 2U | Dev | 2026 - 2030 | $1,555,963 | Dev | 2026 - 2030 | $35,921,293 | Dev | 2026 - 2030 | $23,932,339 | $61,409,596 |
| 3049b | SunLake Blvd | New Collector Road "A" | SR 52 | 00 | 4D | CoGen | 2025 | $3,428,021 | | Completed | | CoGen | 2026 - 2030 | $58,459,064 | $61,887,086 |
| 3051 | Tower Rd | Gunn Hwy | Bexley Ranch Blvd | 00 | 4D | CoGen | 2025 | $2,272,614 | CoGen | 2026 - 2030 | $15,740,749 | CoGen<br>TRIP | 2031 - 2035<br>2031 - 2035 | $44,369,119<br>$6,100,000 | $68,482,482 |
| 3040a | Tower Rd | East of Ballantrae Blvd | Lake Patience Rd | 00 | 2U | Dev | 2026 - 2030 | $505,006 | Dev | 2026 - 2030 | $4,474,721 | Dev | 2026 - 2030 | $7,767,514 | $12,747,240 |
| 3040b | Tower Rd | Bexley Ranch Blvd | Lake Patience Rd | 2U | 4D | CoGen | 2026 - 2030 | $1,236,787 | | Completed | | CoGen | 2026 - 2030 | $18,998,694 | $20,235,481 |
| 3141a | Tower Rd | Lake Patience Rd | Sunlake Blvd | 00 | 4D | CoGen | 2026 - 2030 | $387,024 | CoGen | 2026 - 2030 | $16,987,857 | CoGen | 2026 - 2030 | $5,950,032 | $23,324,913 |
| 3141b | Tower Rd | Sunlake Blvd | Drexel Rd | 0 | 2U | CoGen | 2026 - 2030 | $559,601 | CoGen | 2026 - 2030 | $0 | CoGen | 2031 - 2035 | $10,106,992 | $10,666,593 |
| 3141c | Tower Rd | Drexel Rd | Land O Lakes Blvd (US 41) | 0 | 2U | CoGen | 2031 - 2035 | $1,787,011 | CoGen | 2031 - 2035 | $4,469,946 | CoGen | 2031 - 2035 | $27,486,088 | $33,743,044 |
| 3142a | Tower Rd Ext / Caliente Blvd | Land O Lakes Blvd (US 41) | Ehren Cutoff | 00 | 2U | CoGen | 2031 - 2035 | $1,218,052 | | Completed | | CoGen | 2031 - 2035 | $18,734,912 | $19,952,964 |
| 3011 | Wesley Chapel Blvd | SR 54/56 | Magnolia Blvd | 4D | 6D | | Completed | | | Completed | | CoGen | 2019 - 2024 | $36,645,282 | $36,645,282 |
| 3012 | Wesley Chapel Blvd | Magnolia Blvd | N of Oakley Blvd | 4D | 6D | | Completed | | | Completed | | CoGen | 2019 - 2024 | $11,387,338 | $11,387,338 |
| 3094 | Z West Ext | SR 54 | Handcart Rd | 00 | 4D | CoGen | 2031 - 2035 | $4,322,803 | CoGen | 2031 - 2035 | $27,016,040 | CoGen | 2036 - 2045 | $87,895,962 | $119,234,804 |

| Project Number | On Street | From | To | 2019 Lanes | 2045 Lanes | Project Development & Envrionemnt / Design | | | Right of Way | | | Construction | | | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Source | Timing | Cost | Source | Timing | Cost | Source | Timing | Cost | |
| **Developer Roads (funded with Developer and County funds)** | | | | | | | | | | | | | | | |
| 3056a | Bexley Ranch Rd | Tower Rd | Sunlake Blvd | 00 | 2U | Dev | 2026 - 2030 | $1,876,710 | Dev | 2026 - 2030 | $23,340,900 | Dev | 2026 - 2030 | $28,865,760 | $54,083,370 |
| 3056b | Bexley Ranch Rd | Sunlake Blvd | US 41 (Land O' Lakes Blvd) | 00 | 2U | Dev | 2031 - 2035 | $1,955,294 | Dev | 2031 - 2035 | $24,318,260 | Dev | 2031 - 2035 | $30,074,464 | $56,348,018 |
| 3054 | Bulloch Blvd | Asbel Rd | SR 52 | 00 | 2U | Dev | 2026 - 2030 | $5,286,514 | Dev | 2026 - 2030 | $33,058,608 | Dev | 2026 - 2030 | $81,312,110 | $119,657,232 |
| 3061a | Collier Parkway Ext | Ehren Cutoff (S) | Ehren Cutoff (N) | 00 | 2U | Dev | 2031 - 2035 | $4,909,768 | Dev | 2031 - 2035 | $30,684,369 | Dev | 2031 - 2035 | $53,263,938 | $88,858,075 |
| 3123a | Collier Parkway Ext | SR 52 | Bellamy Brothers Blvd | 00 | 2U | Dev | 2036 - 2045 | $4,292,393 | Dev | 2036 - 2045 | $26,841,983 | Dev | 2036 - 2045 | $66,021,480 | $97,155,855 |
| 3123b | Collier Parkway Ext | Bellamy Brothers Blvd | McKendree Rd | 00 | 2U | Dev | 2036 - 2045 | $3,624,687 | Dev | 2036 - 2045 | $22,666,563 | Dev | 2036 - 2045 | $55,751,472 | $82,042,722 |
| 3059a | Connerton Blvd | Flourish Drive | Ehren Cutoff Rd | 00 | 2U | Dev | 2026 - 2030 | $682,440 | Dev | 2026 - 2030 | $11,019,624 | Dev | 2026 - 2030 | $10,496,640 | $22,198,704 |
| 3110 | Dean Dairy | Eiland Blvd | Prospect Rd | 00 | 2U | Dev | 2036 - 2045 | $3,587,201 | Dev | 2036 - 2045 | $22,391,242 | Dev | 2036 - 2045 | $55,094,379 | $81,072,822 |
| 3062 | Drexel Rd | Lake Patience Rd | Tower Rd | 00 | 2U | Dev | 2031 - 2035 | $1,403,398 | Dev | 2031 - 2035 | $8,775,992 | Dev | 2031 - 2035 | $21,585,736 | $31,765,125 |
| 3162 | Drexel Rd | Tower Rd | Bexley Rd | 00 | 2U | Dev | 2031 - 2035 | $985,575 | Dev | 2031 - 2035 | $6,163,178 | Dev | 2031 - 2035 | $15,159,169 | $22,307,922 |
| 3164 | Mirada Blvd | SR 52 | Curley Rd | 00 | 2U | | Completed | | Dev | 2019 - 2024 | $7,204,361 | Dev | 2019 - 2024 | $17,720,099 | $24,924,460 |
| 3158 | New Collector "A" | Ridge Rd | SunLake Blvd Ext / New rd | 00 | 2U | Dev | 2036 - 2045 | $2,611,423 | Dev | 2036 - 2045 | $16,330,230 | Dev | 2036 - 2045 | $40,166,404 | $59,108,058 |
| 3157 | New Collector west of US 41 | Sunlake Blvd Ext | US 41 (Land O' Lakes Blvd) | 00 | 2U | Dev | 2036 - 2045 | $1,371,005 | Dev | 2036 - 2045 | $8,573,424 | Dev | 2036 - 2045 | $21,087,493 | $31,031,922 |
| 3055 | New Connector | Sunlake Blvd | Rdway "A" | 00 | 2U | Dev | 2036 - 2045 | $1,027,647 | Dev | 2036 - 2045 | $6,426,264 | Dev | 2036 - 2045 | $15,806,265 | $23,260,175 |
| 3074 | New Connector | Ehren Cutoff | SR 52 | 00 | 2U | Dev | 2036 - 2045 | $4,478,656 | Dev | 2036 - 2045 | $28,006,760 | Dev | 2036 - 2045 | $68,886,406 | $101,371,821 |
| 3156 | New Ext of SunLake Blvd | SunLake Blvd Ext | SR 52 | 00 | 2U | Dev | 2036 - 2045 | $2,180,905 | Dev | 2036 - 2045 | $13,638,043 | Dev | 2036 - 2045 | $33,544,605 | $49,363,553 |
| 3089 | New River Rd | Chancey Rd | SR 56 | 00 | 2U | Dev | 2036 - 2045 | $847,962 | Dev | 2036 - 2045 | $5,302,630 | Dev | 2036 - 2045 | $13,042,535 | $19,193,127 |
| 3030 | Old Dixie Hwy | New York Ave | Aripeka Rd | 00 | 2U | Dev | 2031 - 2035 | $953,607 | Dev | 2031 - 2035 | $5,963,269 | Dev | 2031 - 2035 | $14,667,464 | $21,584,339 |
| 3124 | Old Pasco Rd Ext | SR 52 | Collier Parkway Ext | 00 | 2U | Dev | 2036 - 2045 | $870,992 | Dev | 2036 - 2045 | $5,446,645 | Dev | 2036 - 2045 | $13,396,760 | $19,714,397 |
| 3112 | Oldwoods Ave | Meadow Pointe Blvd | Coats Rd | 00 | 2U | Dev | 2031 - 2035 | $4,368,914 | Dev | 2031 - 2035 | $27,320,503 | Dev | 2031 - 2035 | $67,198,466 | $98,887,883 |
| 3165 | Pasco Towne Center Drive | McKendree Rd Ext | SR 52 | 00 | 2U | Dev | 2031 - 2035 | $1,802,963 | Dev | 2031 - 2035 | $11,274,619 | Dev | 2031 - 2035 | $27,731,447 | $40,809,029 |
| 3155 | Racetrack Rd | US 19 | Old Dixie Hwy (3030) | 0 | 2U | Dev | 2031 - 2035 | $494,435 | Dev | 2031 - 2035 | $3,086,252 | Dev | 2031 - 2035 | $7,593,822 | $11,174,508 |
| 3083a | River Glen Blvd / Wynfields Blvd | Hillsborough County Line | Overpass Rd Ext | 00 | 2U | Dev | 2026 - 2030 | $4,190,182 | Dev | 2026 - 2030 | $55,321,224 | Dev | 2026 - 2030 | $64,449,370 | $123,960,775 |
| 3058 | Roach's Run | Rdway "A" | US 41 (Land O' Lakes Blvd) | 00 | 2U | Dev | 2036 - 2045 | $1,498,825 | Dev | 2036 - 2045 | $9,372,723 | Dev | 2036 - 2045 | $23,053,476 | $33,925,024 |
| 3109a | Sunshine Rd | Overpass Rd | Handcart Rd | 00 | 2U | | Completed | | | Completed | $0 | Dev | 2019 - 2024 | $7,077,280 | $7,077,280 |
| 3109b | Sunshine Rd | Handcart Rd | Ft. King Rd | 00 | 2U | Dev | 2031 - 2035 | $2,027,416 | Dev | 2031 - 2035 | $12,678,210 | Dev | 2031 - 2035 | $31,183,768 | $45,889,393 |
| 3057a | Symphony Drive (Asbel Dr. Ext.) | Central Blvd | US 41 (Land O' Lakes Blvd) | 00 | 2U | | Completed | | | Completed | | | 2019 - 2024 | $460,463 | $460,463 |
| 3057b | Symphony Drive | Connerton Blvd | Central Blvd | 00 | 2U | Dev | 2036 - 2045 | $1,755,249 | Dev | 2036 - 2045 | $10,976,249 | Dev | 2036 - 2045 | $26,997,565 | $39,729,064 |
| 3166 | Tyndall Rd | McKendree Rd Ext | Curley Rd / St | 00 | 2U | Dev | 2031 - 2035 | $825,516 | Dev | 2031 - 2035 | $5,162,268 | Dev | 2031 - 2035 | $12,697,295 | $18,685,080 |
| 3160 | Welbilt Blvd | Mitchell Blvd | Mitchell Ranch Rd | 00 | 2U | Dev | 2026 - 2030 | $232,030 | Dev | 2026 - 2030 | $1,450,970 | Dev | 2026 - 2030 | $3,568,858 | $5,251,858 |
| 3093 | Wells Rd Ext | SR 581 Ext | Boyette Rd | 00 | 2U | Dev | 2031 - 2035 | $803,629 | Dev | 2031 - 2035 | $5,025,399 | Dev | 2031 - 2035 | $12,360,646 | $18,189,673 |
| 3096 | Wells Rd Ext | Curley Rd | Eiland Blvd | 00 | 2U | Dev | 2031 - 2035 | $2,905,602 | Dev | 2031 - 2035 | $18,169,852 | Dev | 2031 - 2035 | $44,691,204 | $65,766,658 |
| 3071a | Wesley Chapel Blvd | County Line Rd | SR 54 | 00 | 2U | Dev | 2036 - 2045 | $1,428,555 | Dev | 2036 - 2045 | $17,767,137 | Dev | 2036 - 2045 | $21,972,669 | $41,168,360 |
| 3064 | Wilson Rd | SR 54 | Lake Patience Rd | 00 | 2U | Dev | 2031 - 2035 | $1,431,975 | Dev | 2031 - 2035 | $8,954,696 | Dev | 2031 - 2035 | $22,025,281 | $32,411,952 |
| 3091 | Wiregrass Ranch Blvd Ext. | Chancey RD | SR 54 | 00 | 4D | | Completed | | | Completed | | Dev | 2019 - 2024 | $21,298,410 | $21,298,410 |

Roadway codes: 2U= 2 lanes undivided, 4D= 4 lanes divided, 6D= 6 lanes divided, 6F=6 lanes freeway, 00=roadway not built or substandard

Funding Source Codes: OAPE = Other State Roadways Product Support, OARC = Other State Roadways Right of Way & Construction, TMA = Transportation Management Area Funds, TRIP = Transportation Regional Incentive ProgramSIS = Federal Funds for Strategic Intermodal System Roadways, CoMF = County Mobility Fees, COVPH = County Village of Pasadena Hills Funds, CoGen = County General Transportation Funds, Dev = Developer funded

**Map ES-4: MOBILITY 2045 Cost Affordable Transit Plan, 2020–2040**




*Super Stops are enhanced bus stops that may include a kiosk, real-time bus arrival information display, lighting, covered seating, bike storage, and other amenities.

**Table ES-9: MOBILITY 2045 Cost Affordable Transit Operating and Capital Costs Summary, 2020–2045**

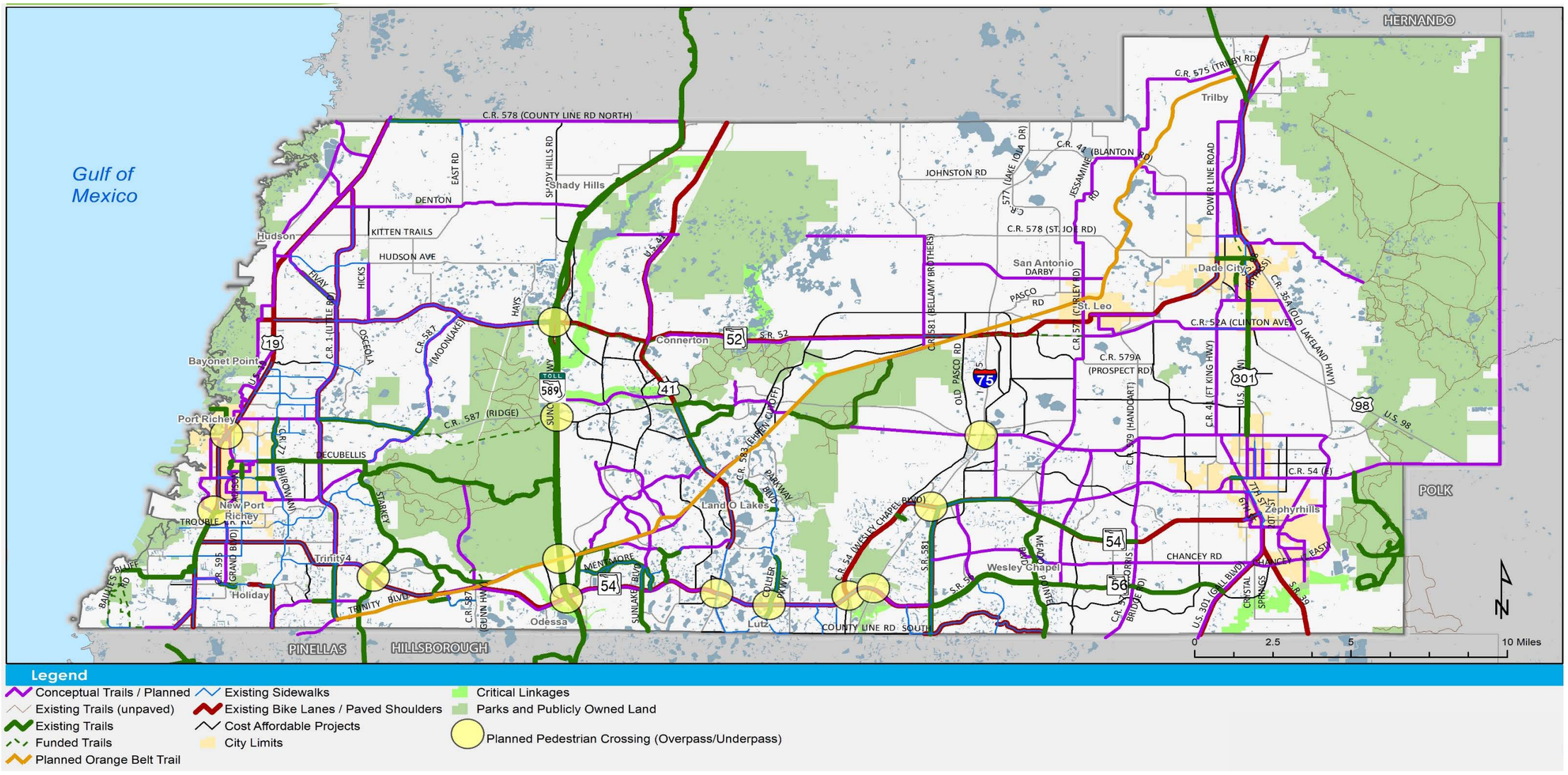
| Proposed Improvement | Implementation Year | Capital Costs (YOE*) *Replacement Vehicles for Existing Services* | *Vehicle Purchases for New Services* | *Infrastructure* | Operating Cost (YOE*) | Total Cost (YOE*) |
|---|---|---|---|---|---|---|
| Continue existing fixed-route service | Ongoing | $39,027,189 | $0 | $0 | $139,933,377 | $178,960,566 |
| Continue existing paratransit service (ADA & TD) | Ongoing | $5,430,783 | $0 | $0 | $49,516,731 | $54,947,514 |
| Support vehicles | Ongoing | $392,565 | $0 | $0 | $0 | $392,565 |
| Increase frequency to 30 min on existing routes | 2024 | $0 | $20,838,828 | $0 | $140,637,376 | $161,476,204 |
| Increase frequency to 15 min on Route 19 | 2020 | $0 | $7,908,425 | $0 | $53,724,987 | $61,633,412 |
| Expand hours of service 3 hours at night on all routes | 2021 | $0 | $0 | $0 | $18,916,678 | $18,916,678 |
| Add Sunday Service on existing routes | 2026 | $0 | $0 | $0 | $25,172,723 | $25,172,723 |
| SR-52 Cross County Express | 2022 | $0 | $2,455,218 | $0 | $5,505,513 | $7,960,731 |
| Wiregrass Hopper | 2023 | $0 | $225,389 | $0 | $7,322,143 | $7,547,532 |
| Shady Hills Connector | 2024 | $0 | $2,554,408 | $0 | $9,228,429 | $11,782,837 |
| St. Leo University Connector | 2027 | $0 | $243,968 | $0 | $2,115,856 | $2,359,824 |
| Regional Express I-75 (off-peak) | 2029 | $0 | $2,820,273 | $0 | $14,757,925 | $17,578,198 |
| Regional Express I-75 (peak) | 2029 | $0 | $4,230,410 | $0 | $11,068,442 | $15,298,852 |
| US-19 Express (PHSC to Tarpon Mall) | 2033 | $0 | $5,640,548 | $0 | $44,273,776 | $49,914,324 |
| Regional Rapid Transit (I-275) | 2029 | $0 | $5,640,548 | $0 | $44,273,776 | $49,914,324 |
| Land O' Lakes Circulator (round-trip) | 2029 | $0 | $4,230,410 | $0 | $32,178,354 | $36,408,764 |
| SR-54 Cross County Express | 2033 | $0 | $8,210,539 | $0 | $26,225,743 | $34,436,282 |
| Suncoast Express | 2033 | $0 | $2,691,737 | $0 | $34,967,656 | $37,659,393 |
| Starkey Connector | 2029 | $0 | $1,410,137 | $0 | $11,068,442 | $12,478,579 |
| Paratransit (ADA) service for new local routes | 2020-2045 | $0 | $885,201 | $0 | $2,198,443 | $3,083,644 |
| Super Stops | 2020-2045 | $0 | $0 | $3,696,385 | $0 | $3,696,385 |
| Other capital infrastructure | 2020-2045 | $0 | $0 | $25,425,048 | $0 | $25,425,048 |
| **Total** | | **$44,850,537** | **$69,986,039** | **$29,121,433** | **$673,086,370** | **$817,044,379** |

**YOE = Year of Expenditure*

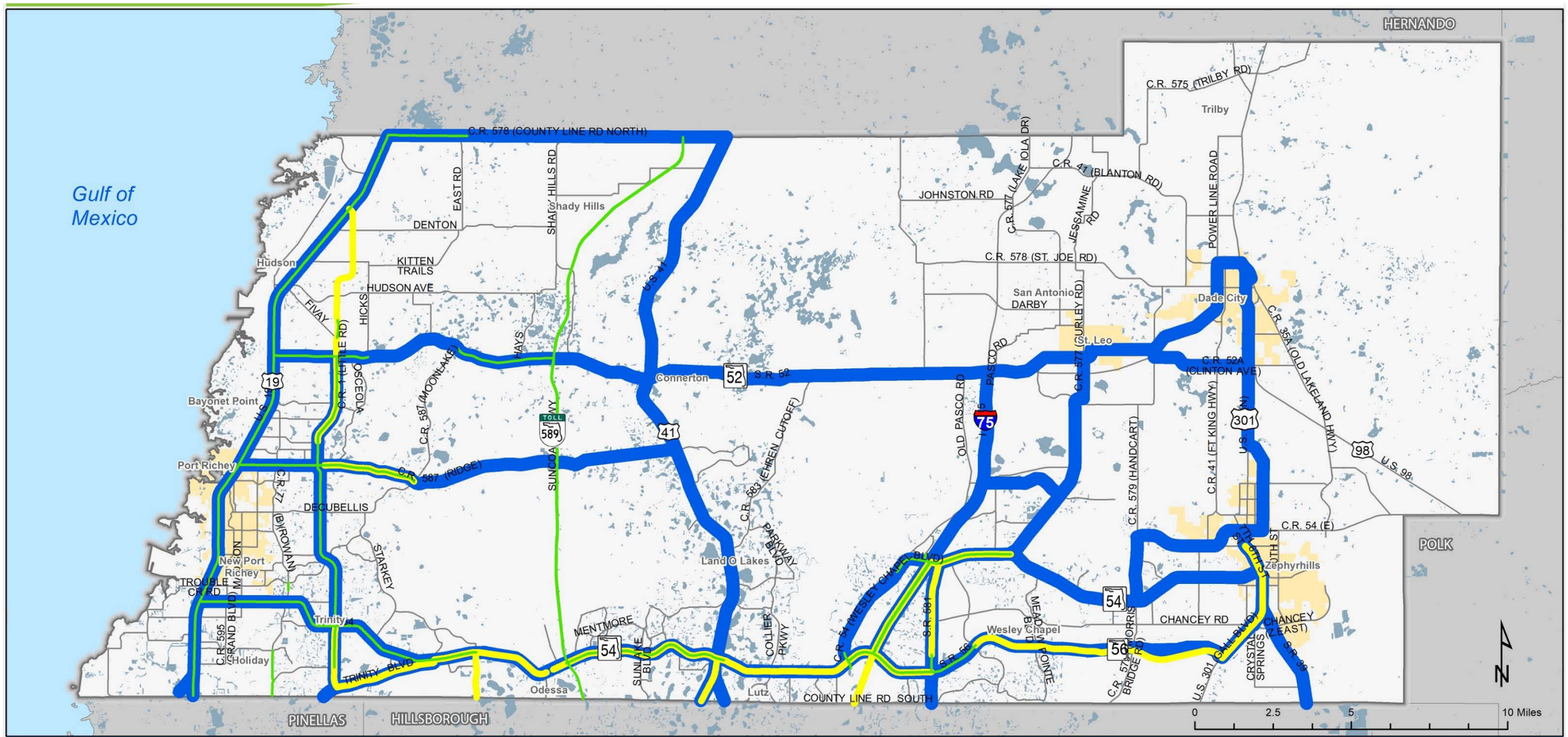
**Table ES-10: 25-Year Cost Affordable Transit Financial Plan (Year-of-Expenditure)**

| | FY2020–FY2025 | FY2026–FY2030 | FY2031–FY2035 | FY2036–FY2040 | FY2041–FY2045 | Total |
|---|---|---|---|---|---|---|
| ***Operating*** | | | | | | |
| **Costs** | **$52,256,583** | **$88,741,513** | **$156,753,758** | **$179,727,036** | **$195,607,479** | **$673,086,370** |
| **Revenues** | **$61,054,225** | **$114,845,563** | **$147,498,221** | **$184,126,484** | **$189,753,959** | **$697,278,452** |
| Federal | $1,826,064 | $1,563,115 | $1,616,725 | $1,663,892 | $1,715,975 | $8,385,772 |
| State | $18,048,622 | $39,617,541 | $41,551,120 | $44,366,546 | $45,896,174 | $189,480,003 |
| Local | $25,879,486 | $51,445,882 | $68,077,416 | $96,814,194 | $97,122,270 | $339,339,248 |
| Paratransit | $8,747,939 | $8,431,532 | $9,873,732 | $10,742,023 | $11,686,673 | $49,481,899 |
| Fares | $6,552,115 | $13,787,493 | $26,379,228 | $30,539,829 | $33,332,867 | $110,591,531 |
| ***Capital*** | | | | | | |
| **Costs** | **$23,893,403** | **$28,953,406** | **$23,789,788** | **$26,763,232** | **$40,558,182** | **$143,958,010** |
| **Revenues** | **$25,071,834** | **$22,364,029** | **$24,619,877** | **$27,071,409** | **$29,812,987** | **$128,940,135** |
| Federal | $24,913,734 | $21,608,679 | $23,857,727 | $26,340,859 | $29,082,437 | $125,803,435 |
| Local | $158,100 | $755,350 | $762,150 | $730,550 | $730,550 | $3,136,700 |
| ***Total Costs & Revenues*** | | | | | | |
| **Costs** | **$76,149,986** | **$117,694,919** | **$180,543,546** | **$206,490,268** | **$236,165,661** | **$817,044,379** |
| **Revenues** | **$86,126,059** | **$137,209,592** | **$172,118,098** | **$211,197,893** | **$219,566,945** | **$826,218,588** |
| Federal | $26,739,798 | $23,171,793 | $25,474,453 | $28,004,751 | $30,798,412 | $134,189,207 |
| State | $18,048,622 | $39,617,541 | $41,551,120 | $44,366,546 | $45,896,174 | $189,480,003 |
| Local | $26,037,586 | $52,201,232 | $68,839,566 | $97,544,744 | $97,852,820 | $342,475,948 |
| Paratransit | $8,747,939 | $8,431,532 | $9,873,732 | $10,742,023 | $11,686,673 | $49,481,899 |
| Fares | $6,552,115 | $13,787,493 | $26,379,228 | $30,539,829 | $33,332,867 | $110,591,531 |

**Map ES-5: Existing, Planned, and Future Bicycle and Pedestrian Facilities**



**Map ES-6: Existing and Future Technology/ITS Corridors**



# Next Steps and Implementation

MOBILITY 2045 is the next step in the evolution of long-range transportation planning for Pasco County. With each five-year update of the LRTP, updates are incorporated to address the latest guidance from the Federal and State levels and meet the ever-changing transportation needs of Pasco County.

Pasco County is experiencing high growth in multi-family residential development and commercial development and employment to support the growing population. This plan considers land use scenarios and growth at the county and regional levels. Given the high growth and changing land use patterns in the county, it is paramount that transportation planning and land use changes be closely coordinated. This linkage and the relationship between land use and transportation have been strengthened through the development of this plan.

MOBILITY 2045 also continues to emphasize multimodal planning and safety. As Pasco County becomes more densely populated, transit and active transportation modes (bicycling and walking) become more instrumental in providing mobility choices. This plan builds upon and reinforces a commitment to bicycle and pedestrian facilities and multi-use paths in Pasco County. With increased densities, congestion, and the presence of bicyclists and pedestrians, safety is a focus of this plan. Short-term improvements at the intersection and corridor levels are envisioned to make the transportation environment safer for all travelers.

Technology also takes a large leap forward in MOBILITY 2045, as automated, connected, electric, and shared (ACES) vehicle impacts on the landscape are being considered. These technologies, along with traffic signal and ITS implementation, will impact roadway capacity, land use, and the safety of future transportation system users.

Other factors such as resiliency and climate change also are affecting planning for future transportation needs. These are considered in MOBILITY 2045, as they will have long-term, continuing impacts on the way the transportation system is built and maintained for years to come.

This plan also continues to reinforce a commitment to the citizens of Pasco County. Environmental Justice (EJ)considerations have been made to ensure that the distribution of projects is equitable and meets the needs of all citizens. The development of MOBILITY 2045 included extensive public involvement activities, and changes to projects and priorities were made based upon public input.

MOBILITY 2045 not only identifies and prioritizes cost affordable projects through 2045, it also sets the groundwork for logical next steps in project implementation and development. This includes a concerted effort to advance and follow through with all plan programs and elements. The following are next steps to consider for plan implementation:

- Updating the MPO's Congestion Management Process to identify short-term, lower cost projects to immediately have an impact on congestion and safety within the County.
- Working closely with the County's comprehensive planners to consider the impacts of proposed and new developments and providing supportive transportation infrastructure.

- Providing consistency with the nature and character of the County's market areas rather than a one-size-fits-all approach to transportation and land use coordination.
- Working closely with regional partners through the Tampa Bay Transportation Management Area (TMA) and the Tampa Bay Area Regional Transit Authority (TBARTA) to advance regional transportation projects.
- Advancing transportation projects by partnering with State, Federal, and local partners.
- Conducting a subarea analysis of transportation needs within the growing and changing Zephyrhills Airport area.
- Continuing the development and use of land use scenario planning.

MOBILITY 2045

Pasco County MPO
Transportation Plan

# Chapter 1
# Introduction

# Introduction

## What is MOBILITY 2045?

MOBILITY 2045 is the Long Range Transportation Plan (LRTP) for Pasco County and is produced by the Pasco County Metropolitan Planning Organization (MPO). Federal law requires that all urbanized areas with a population of greater than 50,000 persons establish an MPO. The MPO is responsible for area transportation programming activities, and the metropolitan planning process establishes a continuous, comprehensive, and cooperative framework for making transportation investment decisions in metropolitan areas.

A primary function of an MPO is the production of an LRTP that must comply with Federal legislation and be updated every five years to receive Federal funding for transportation projects. Local governments rely heavily on transportation dollars from the federal government to widen roads, build new roads, and provide transit services. Although the MPO does not build or widen roads, it provides oversight in the planning and funding process by prioritizing transportation projects, especially those that receive Federal funds.

As an MPO in a metropolitan of more than 200,000 residents, the Pasco MPO is part of the Tampa Bay TMA along with Forward Pinellas (Pinellas MPO) and the Hillsborough MPO (Plan Hillsborough). As such, TMA member MPOs must collectively make regional transportation planning decisions and coordinate regularly. However, each MPO also develops its own county-based LRTP. There are discussions of regional coordination efforts within this document, but the focus herein is to describe the development of the Pasco County MPO LRTP, also known as MOBILITY 2045.

MOBILITY 2045 includes projects to be funded through project implementation by 2045, but it also is a roadmap to the future of Pasco County. It provides insight into where Pasco County is going and where it has been and discusses a safer, multimodal transportation system with equal access for all and a future that includes new transportation technologies. It also describes a future transportation system that is limited by finite financial resources and shows what could be accomplished if additional funding sources can be identified.

## Where Have We Been?

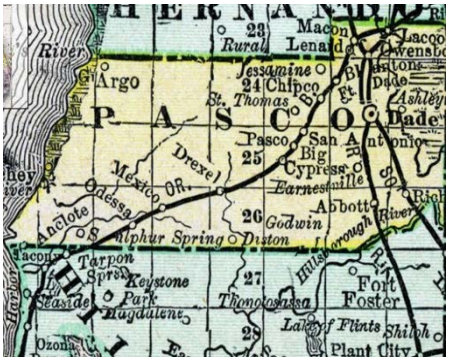
To fully understand where we are and where we are going, we need to understand where we came from. Pasco County is a unique place that has overcome challenges in the past and must start today to plan for the challenges of tomorrow.

The history of Pasco County has played a major role in shaping the transportation system and travel behaviors we see today. Likewise, as a testament to the strong relationship between transportation, economic development, and land use, the history of how the transportation system formed has greatly influenced how Pasco County has developed and evolved over time.

Pasco County was founded on June 2, 1887, when Hernando County was split into three separate counties. Citrus County was formed from the northern third, Hernando County remained the middle third, and Pasco County was formed from the southern third.

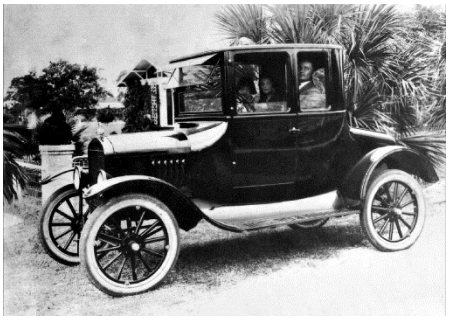
Pasco County is approximately 868 square miles in size, with water comprising approximately 15 percent of the total land mass. It is bordered by Hernando County to the north, Sumter County to the northeast, Polk County to the southeast, Hillsborough County to the south, and Pinellas County to the southwest; the western border of Pasco County is the Gulf of Mexico. Upon incorporation, Pasco County had a modest population of approximately 4,000 people and was very rural.

Prior to incorporation, the county's primary economic base was agriculture and forest products. The arrival of the Plant System Railroad in 1887 provided the ability to transport refrigerated goods and greatly transformed Pasco County's economy. Not only did the rail line provide a significant boost to the citrus industry, it also attracted new development in close proximity to the rail depots. Today, the western portion of Pasco County is more urbanized and heavily populated than its eastern counterpart, but this was not always the case. In the early years following incorporation, the eastern side was viewed as the county's economic corridor, largely due to the presence of the railroad in east Pasco County and businesses that formed along US-301, the primary travel corridor. Dade City was a product of the railroad, having been formed in the mid-1880s when people from the nearby community of Fort Dade relocated several miles east to be near the railroad depot that provided north and south rail connections.




*1888 Rand McNally map of newly-formed Pasco County showing the many railroad corridors that once crisscrossed the county. Photo courtesy of Jeff Miller, History of Pasco County. (www.fivay.org).*

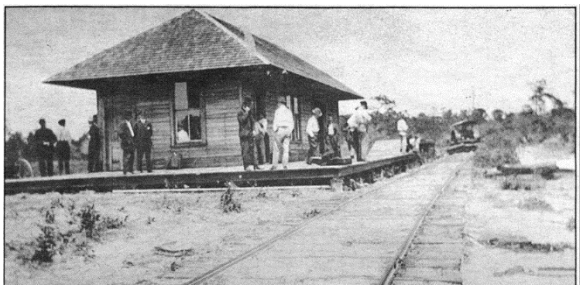
Dade City was named the temporary County Seat upon county incorporation and was subsequently named the permanent County Seat in 1889. In east Pasco County, San Antonio was incorporated in 1891, and Zephyrhills was incorporated as a town in 1910 and reincorporated as a city in 1914. By 1920, the county's population had more than doubled in the 33 years since its founding, to approximately 8,800 people. During this time, the vast majority of growth occurred in eastern Pasco County, primarily due to the railroad presence.



*1924 Ford automobile in Dade City. Photo courtesy of Jeff Miller, History of Pasco County (www.fivay.org).*

Following World War I, a real estate boom brought many land buyers to Florida's west coast, including Pasco County. This growth and economic surge, as well as the new Seaboard Air Line rail service that connected Port Richey to Tarpon Springs via Elfers, tipped the scales for growth in west Pasco County. As a result, New Port Richey was incorporated in 1924, and Port Richey was incorporated in 1925. Growth in western Pasco County was primarily residential and largely followed the two major north-south transportation corridors that were constructed in western Pasco County post-WWI—primarily US-19, located closest to the Gulf of Mexico, and, to a lesser extent, US-41.

From the 1920s through the 1950s, Pasco County continued to experience modest but steady growth, which continued to be primarily residential, with many workers seeking employment in Pinellas and Hillsborough counties for work outside of the agriculture and citrus industries. The subsequent retirement boom of the 1960s brought significant growth to Florida's west central coast and to Pasco County. The higher cost of living, coupled with less available vacant land in Pinellas County, made Pasco County an attractive place for retirees.



*The arrival of the Seaboard Air Line railroad to New Port Richey signaled growth in western Pasco County. Pictured is the New Port Richey rail depot in 1915. Photo courtesy of Jeff Miller, History of Pasco County (www.fivay.org).*

The opening of I-75 in the mid-1960s enhanced the attractiveness of Pasco County by allowing motorists to more easily travel between eastern Pasco County and Hillsborough and Pinellas counties, creating a more defined economic region. Although providing a new higher-speed travel option, the opening of I-75 had some negative effects on eastern Pasco County by drawing traffic away from US-301. This greatly impacted the businesses and communities that depended on pass-by traffic along the corridor.

Population growth continued at a steady pace from 1960 to 2000, primarily as a result of a steady influx of retirees and people migrating north from Pinellas and Hillsborough counties. In 2001, the opening of the Suncoast Parkway provided a second major north-south connection to Pinellas and Hillsborough counties to the south and to Hernando and Citrus counties to the north. Located west of I-75 in the center of Pasco County, the Parkway was more easily accessible to persons in western and central Pasco County, connecting the area to the regional transportation system, with a faster travel option than US-19 into Pinellas County and US-41 into Hillsborough County.

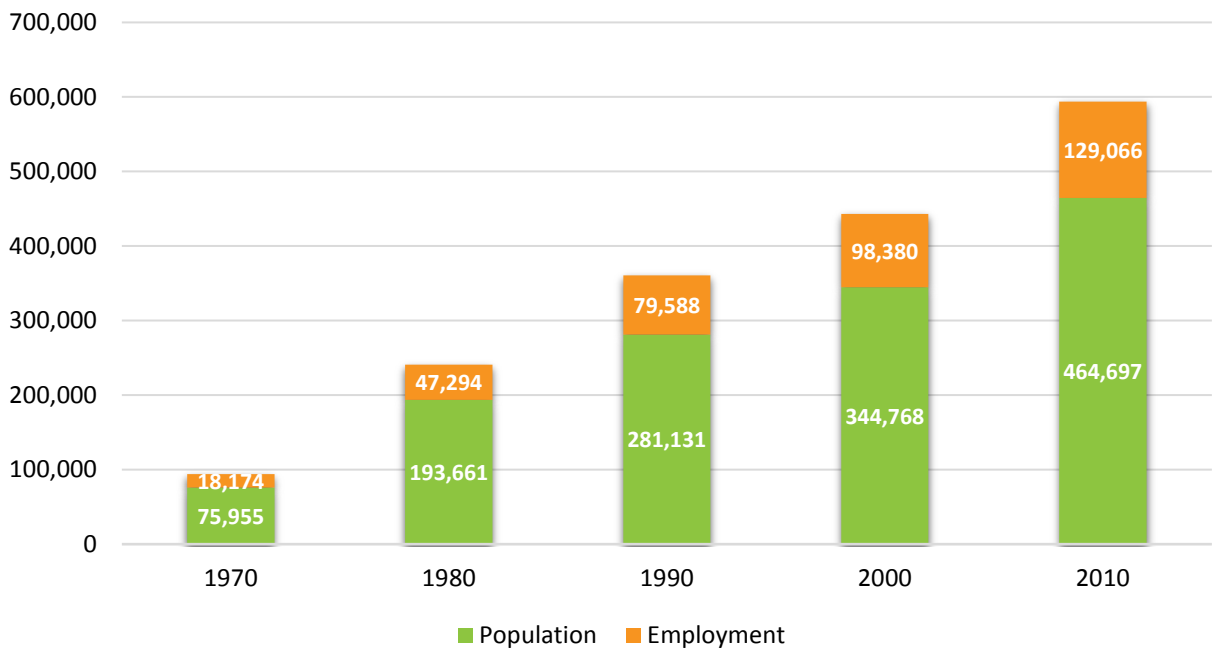
With more regional transportation options, lower land costs, and more available land, the areas along the southern border of Pasco County were viewed as a valuable resource for affordable housing in the Tampa Bay Region. Between 2000 and 2010, Pasco County's population grew by approximately 35 percent as a result of the residential construction boom of 2002–2008. These new housing developments offered more affordable housing options just over the County line for many people employed in Pinellas or Hillsborough counties. Residential growth during this period greatly strengthened Pasco County as a "bedroom community" to employment centers and businesses located outside of the county.

Figure 1-1 illustrates the distribution of historical population and employment by decade for 1960–2010.

As with much of the state, Pasco County recovered from the Great Recession and is making up for lost time. New, large planned unit developments are being constructed, commercial building has taken off, and multi-family developments are dotting the landscape throughout the county.

Taking all of this into account, MOBILITY 2045 seeks to chart the future of Pasco County transportation. To meet existing and future travel demand, transportation planners, engineers, and decision-makers much be insightful, informed, and creative to address future challenges.

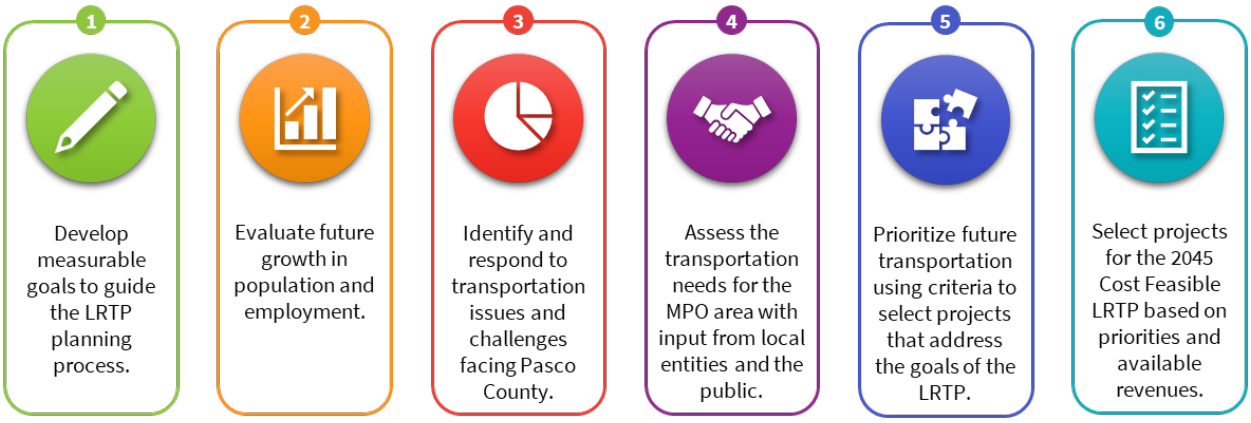
**Figure 1-1: Historical Population and Employment by Decade (1960–2010)**




## How was MOBILITY 2045 Developed?

MOBILITY 2045 was developed to include all the components identified in current Federal transportation legislation (Fixing America's Surface Transportation Act, FAST Act) guidance and incorporates pertinent elements of previous metropolitan planning legislation and Pasco LRTP updates. The process followed herein is consistent with the state of the practice and incorporates new methods not used in MOBILITY 2040, including scenario planning through land use allocation modeling, new public involvement survey techniques, and incorporation of the latest in transportation technologies, including connected and automated vehicles and Smart Cities. Figure 1-2 illustrates the MOBILITY 2045 Development Process.

**Figure 1-2: MOBILITY 2045 Development Process**



## Guiding the Plan

Federal and State guidelines and requirements set the larger framework of MOBILITY 2045 and ensure that the plans for all metropolitan areas are consistent in process and basic content. However, it is the citizens and residents of each metropolitan area and region who ultimately decide the future of their transportation system. Therefore, engaging the public through various involvement activities throughout the entire LRTP development process is essential to accurately capture the vision and collective future of the area and region.

A strong LRTP must be built upon a firm foundation created through local comprehensive plans and other regional and short-term transportation plans. An LRTP is a unifying document that includes the projects and initiatives of all local and regional transportation implementing agencies and ultimately considers all these other plans and initiatives, sets priorities, and applies fiscal constraints to create the most accurate picture of an area and region's future transportation system. This chapter highlights and introduces some of the major elements and activities that guided the MOBILITY 2045 vision, which include:

- Public engagement and outreach events
- Local and regional plans
- Adopted work programs

### *Public Participation*

During the MOBILITY 2045 update, a multitude of tools were used in the public involvement process to engage a full range of community stakeholders and facilitate their active participation in the plan development. As public input was a key element that helped guide the plan, the outreach process was designed to maximize public engagement. The following section outlines the outreach techniques and a summary of the public involvement portion of the MOBILITY 2045 update.

#### Outreach Techniques

***Project website*** – the single source of all information and project-related materials for MOBILITY 2045 update; included links to all maps, documents, and presentations developed for the plan as well as information about the project schedule and how to get involved.

***Social Media*** – a key forum for communication regarding event and meeting announcements and project updates; Pasco County's Development Services Facebook, Instagram, and Twitter accounts (@PlanningPasco) were used by the Pasco MPO to connect with the community and distribute information about the MOBILITY 2045 update.

***Online surveys*** – conducted two surveys to provide opportunities for residents to comment on and share ideas on the type of transportation investments that are best needed to serve Pasco County and the Tampa Bay region through 2045. The It's TIME Pasco online survey was directed at Pasco residents, and The It's TIME Tampa Bay online survey was a tri-county (Hillsborough, Pasco, Pinellas) regional outreach effort.

**Figure 1-3: MOBILITY 2045 Project Website Homepage (www.mobilitypasco.com)**

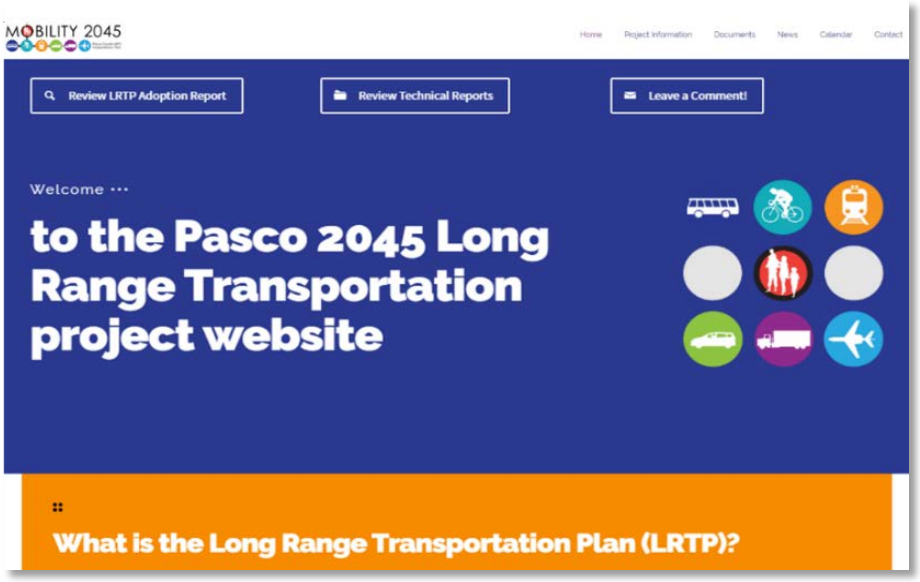



**Figure 1-4: Pasco County Development Services (@PlanningPasco) Social Media Posts**


***Web Map*** – developed for the public to vote on transportation projects and to prioritize transportation improvements in Pasco County.

***Community Workshops and Presentations*** – held at various locations throughout Pasco County to provide opportunities for the public to learn about MOBILITY 2045; also provided opportunities for residents to comment on transportation at the countywide level and comment on specific issues, needs, and transportation projects within more defined sub-areas of the county.

***MPO Board and Committee Meetings*** – held throughout the project to discuss and review technical analyses and the development of the different phases involved in the MOBILITY 2045 update; provided

the opportunity for members to provide input on developing the vision and direction the LRTP would take; included topics such as the Vision and Goals, transportation revenue scenarios, the Needs Assessment, project cost assumptions and the Cost Feasible Plan.

***Regional Committee Meetings*** – with the Hillsborough MPO (Plan Hillsborough) and the Pinellas MPO (Forward Pinellas) were conducted on a monthly basis to coordinate the development of each MPO's 2045 LRTP through Technical Review Team meetings.

**Figure 1-5: MOBILIY 2045 Interactive Web Map**

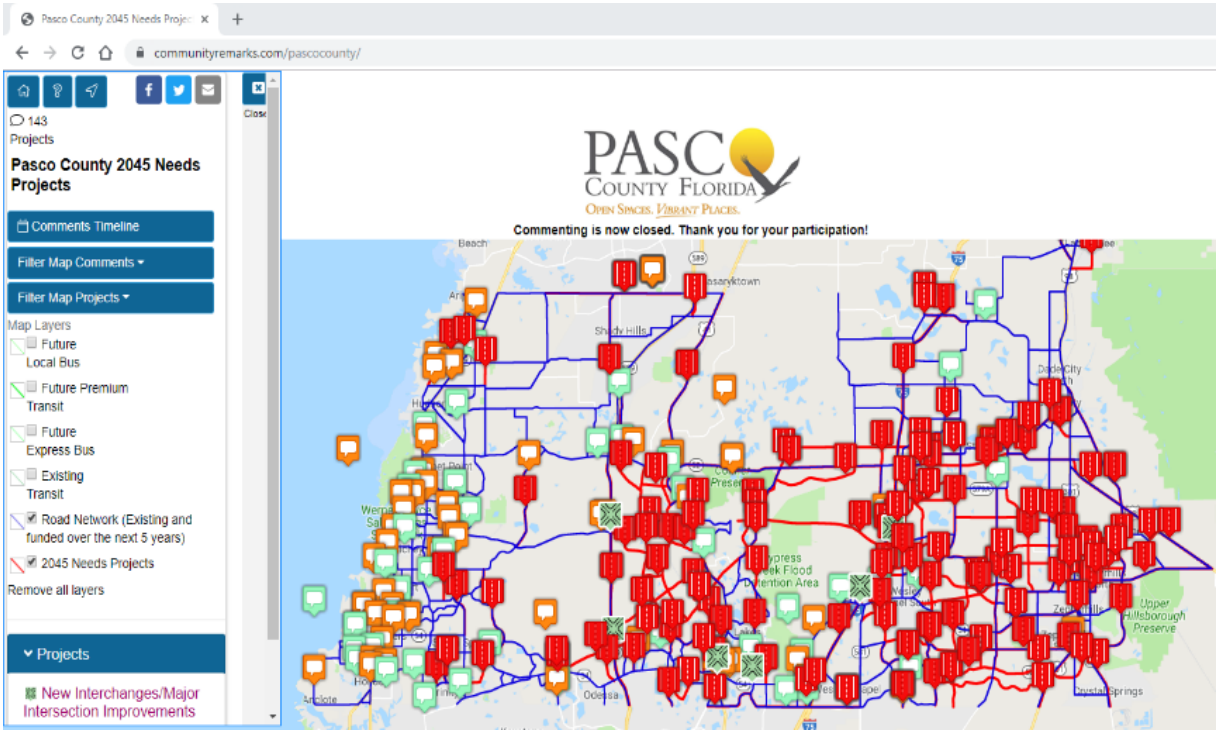



**Figure 1-6: MOBILITY 2045 Event**

## *Outreach Summary*

The following section provides a summary of the MOBILITY 2045 public engagement activities, which were divided into three main phases:

- Identification of transportation issues and concerns;
- Prioritization of future transportation needs; and
- Identification of cost feasible projects.

Additional detail concerning MOBILITY 2045 outreach activities is provided in Chapter 6, Public Outreach.

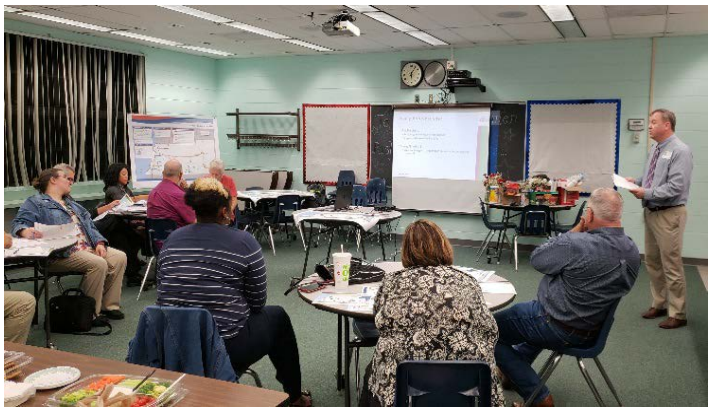
### Issues and Concerns

The first phase of public involvement included holding EJ service provider workshops and online surveys to identify and respond to transportation issues and challenges facing Pasco County.

#### *EJ Service Provider and Agency Workshops*

Two discussion group workshops were held to discuss the potential impacts of transportation improvements on the older adult, minority, and low-income populations in Pasco County. In particular, transportation improvements that abutted or bisected minority and/or low-income communities were reviewed by participants in the discussion groups. The attendees provided representative insight into what geographic areas and modes of transportation can increase mobility for these focus populations. The feedback and insight received were used to develop and prioritize future transportation improvement projects so they would not have a negative impact on the traditionally under-served population groups in Pasco County.

**Figure 1-7: Environmental Justice Workshop**



Participants included members from agencies from under-represented and under-served populations in Pasco County, including:

- Pasco Housing Authority
- The ARC Nature Coast
- District School Board of Pasco County
- Pasco County Commissioners
- Pasco citizens
- Vocational Rehabilitation Dade City
- Medfleet

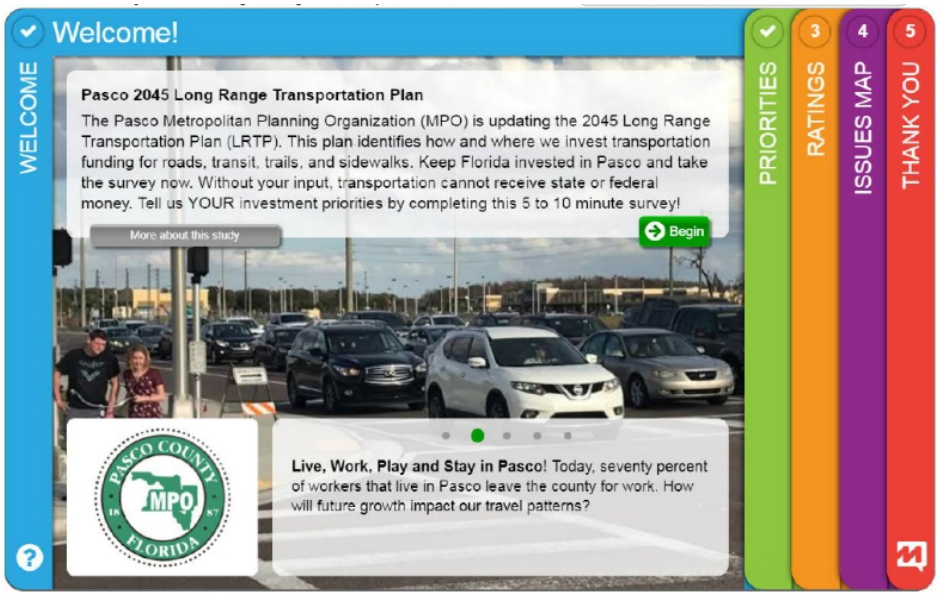
Common themes from the workshop included that transit is an important method of transportation for communities of focus, and improving transit service is important, particularly frequency of service, daily hours of operation of service, and provision of service on weekends and holidays. Maintaining affordability of the service is also important. Walking and biking is a consideration, as it is currently a common mode of transportation and a means of accessing transit. When asked to rank priority service improvements, however, walking and biking access was a lower priority compared to service frequency, intersection safety, and roadway capacity and maintenance considerations.

***It's TIME Pasco***

**Figure 1-8: It's TIME Pasco Logo**

The online survey It's TIME Pasco was developed to collect input from Pasco residents about their transportation priorities and needs. Results from the survey showed that crash reduction, wider roads, and better signal technology were the top transportation investment priorities; the lowest level of satisfaction was with traffic signals, crashes, and transit. Priority rating and satisfaction rankings received from survey respondents provided additional context to the transportation investment needs in the county. At the end of the It's TIME Pasco survey, respondents were presented with an interactive map on which they could identify locations of safety, roadway, transit, biking, and walking concerns or issues. Areas with the highest concentration of concerns were on the western edge of the county, along US-19 from Hudson to Holiday, on the southern boundary of the county along Trinity Blvd and SR-54, and in Wesley Chapel, Wesley Chapel South, and Zephyrhills. The intersection of SR-52 and US-41 was also an area for which multiple respondents identified an issue, specifically with roadway congestion and safety.

**Figure 1-9: It's TIME Pasco Survey Welcome Screen**



***Future Transportation Vision and Needs***

The second phase of public involvement included a tri-county online survey, public workshops, and an interactive web map. The public input from these activities helped assess transportation needs and prioritize future transportation projects for MOBILITY 2045.

***It's TIME Tampa Bay***

It's TIME Tampa Bay online survey was developed as a tri-county planning effort in support of the 2045 LRTP updates for the Hillsborough, Pasco, and Pinellas MPOs. Survey questions were designed to gain input on project priorities and transportation needs for the regional multimodal transportation network, including roads, transit, bicycle, pedestrian, and trail facilities. Results from the survey showed that respondents overwhelmingly supported expanding local, regional, and statewide rail and bus transit services and were used to help identify county-specific and regional projects that support and enhance regional mobility.

***Transportation Needs Public Meeting***

Five public meetings were held in a variety of locations across the County to engage Pasco residents. Presentations included an overview of MOBILITY 2045 goals, baseline roadway and transit conditions, and a summary of the input received from the public engagement events (surveys, workshops and meetings). These workshops and community events provided the opportunity for people to comment on roadway priorities and transit priorities.

***Community Remarks Interactive Web Map***

An interactive web map was developed to provide the opportunity for residents to vote on future transportation projects and comment on specific projects or areas of concern. More than 200 votes were submitted on future transportation projects, and 150+ community comments were posted on the web map. The future transportation projects shown on the interactive web map were identified through an analysis of the baseline and future transportation conditions and through the input received from the previous public engagement events ( online surveys, workshops, meetings). The Community Remarks platform was used to gather comments and provide an interactive forum for commenting and proving input. Of the 200+ votes received from the interactive web map, the projects with the most support/votes included:

- SR-54 Overpass at US-41
- Starkey Rd Extension (south of SR-54)
- County Line Rd (Hernando)
- I-75 at Overpass Rd
- Starkey Rd (N of SR-54)
- Mansfield Blvd (N of SR-56)
- Zephyrhills West Extension

The largest number of comments were categorized as capacity improvements (road extensions, road widening, new roads), followed by intersection improvements (turn lanes, signal timing, crosswalks, traffic signals), roadway improvements (access, egress, infrastructure issues), and pedestrian and bike improvements (new sidewalks, new bike lanes, pedestrian and bicycle crossings, sidewalk and bike lane maintenance).

The third phase of public involvement included outreach presentations that supported the identification of transportation needs that could be funded based on priorities and available revenues for future transportation projects. The third phase of public involvement also included a public review and comment period on the draft plan and adoption of the final plan.

***Workshops and Outreach Presentations***

Five outreach presentations were conducted with community partners to present the findings from the Needs Plan and provide an opportunity for the public to provide feedback on where future transportation funding should be allocated. Available revenues and Cost Feasible Plan projects were presented to more than 100 people attending the outreach events throughout the county to help ensure that the plan reflected the region's transportation priorities.

***30-Day Public Comment Period***

The MPO encourages public participation in the development, review, and adoption process of its plans and strived to create many opportunities for the public to participate during the MOBILITY 2045 LRTP update process. In addition to the public involvement conducted during the update process, the MPO identified a minimum review and comment period of 30 days for the LRTP prior to the adoption of the document. Opportunities were made available for citizens and stakeholders to provide input during this 30-day public comment period (November 1, 2019 to December 1, 2019) through phone calls, emails, online comments, and comment forms.

The MPO continued to maintain and update the MOBILITY 2045 project website (mobilitypasco.com) to include the draft MOBILITY 2045 LRTP, information about providing input on the plan, and previous data and information posted to the website over the past year.

## Public Involvement Summary

The remainder of this section summarizes the outreach activities and level of participation during the MOBILITY 2045 process. More than 4,300 people participated in MOBILITY 2045 through one of the many techniques used in the public outreach process. The following graphic summarizes the public involvement activities and participation that took place as part of MOBILITY 2045.

Each chapter in this document addresses a step, or steps, in the plan development process.

- **Chapter 2: Historic Socio-economic Data** documents the historical and forecast growth of population and employment in Pasco County over the next 25 years. Land use and development

trends in the County within Market Areas are discussed, as are redevelopment efforts and preservation of natural resources.

- **Chapter 3: Socio-Cultural Resources and Environmental Justice** describes some of the socio-cultural resources, community resources, and demographics of Pasco County. It also describes how environmental justice was considered and factored into the development of MOBILITY 2045.
- **Chapter 4: Guiding the Plan – Regional and Local Plan Consistency** describes the regional scenario planning that established the future land use assumptions that guided the travel demand and future land use for the Plan. It also includes a discussion of existing regional and local plans that were used to define needs and priorities of the Plan.
- **Chapter 5: Goals, Objectives, and Performance Measures** documents the goals and objectives of the Plan. It also describes and illustrates how the MOBILITY 2045 Goals and Objectives correlate to the federal planning factors and the goals and objectives of the State Transportation Plan.
- **Chapter 6: Public Outreach Results and Summary** documents the public outreach efforts in developing MOBILITY 2045. It includes the on-line surveys and polls using MetroQuest. It summarizes the results of the surveys and the workshops, public events, and committee and board briefings.
- **Chapter 7: ITS, Safety, Technology & Security** documents the emerging technologies considered in MOBILITY 2045. Programmatic funding for such transportation technology initiatives complement the capacity improvements in the Plan.
- **Chapter 8: Needs Plan Development** discusses how the transportation needs for Pasco County through 2045 were identified, analyzed, and priorities. It discusses how the needs were derived through analysis, public input, and other plans.
- **Chapter 9: Financial Resources** describes the estimation and assumptions used to determine the financial resources available through 2045. Several scenarios involving existing and potential new funding sources are described.
- **Chapter 10: Cost Feasible Plan Development** presents the approaches used by the MPO to set priorities and transition to a fiscally constrained cost affordable plan. Priorities are established through a comprehensive assessment of technical analysis, policy input, citizen input, and financial resources. The MOBILITY 2045 Cost Affordable Plan is documented, reflecting a substantial transition from a highway-oriented plan to a multimodal plan that includes significant investments in transit, highway maintenance, and other multimodal transportation investments to serve all Pasco citizens.
- **Chapter 11: Plan Performance** provides an overview of how the planned MOBILITY 2045 transportation system performs when it comes to addressing the mobility and accessibility needs of Pasco County. This chapter also provides a series of performance measures related to the stated goals of the MOBILITY 2045 Plan in addressing the FAST Act performance planning guidelines.


4,300+ PARTICIPANTS
❖ Online Survey It's TIME Pasco & It's TIME Tampa Bay 2,500+
❖ Web Map 200+
❖ Social Media engagement (likes, shares, clicks) 600+
❖ Transportation Needs public meetings 90
❖ Cost affordable Workshops and presentations 100+
❖ Environmental Justice workshops 14
❖ Website visits 788
❖ 30-day comment period 7
❖ Booths at community events (CARES, Youth Council Day, Humane Society Day etc.) 50+
17 EVENTS FACILITATED
✓ Lacoochee Elementary School
✓ Fasano Center
✓ Land O' Lakes Rotary
✓ New Port Richey Public Library
✓ The Shops at Wiregrass
✓ Historic Courthouse (Dade City)
✓ Northeast Pasco Concerned Citizens
✓ Greater Pasco Chamber Member Luncheon
✓ Commissioner Starkey Town Hall Meeting
✓ Wake Up Greater Pasco Member Breakfast
✓ New Port Richey Public Library
✓ Historic Courthouse (Dade City)
✓ CARES Center in Elfers
✓ Commissioner Mariano Meeting at Holiday Library
✓ Land O' Lakes Humane Society Day at Park
✓ Dade City – Grand opening of Stallings Building
✓ Dade City Youth Council Day
12 OUTREACH TECHNIQUES
❑ Online surveys
❑ Promotional video YouTube
❑ Social media (Facebook, Facebook Live, Twitter, Instagram)
❑ Print news releases
❑ Email blasts
❑ Customized logos and branding
❑ Information business cards/pamphlets
❑ Web Map
❑ Booths at community events
❑ Workshops
❑ Business and Organization meetings
❑ Committee and Board Meetings

MOBILITY 2045

Pasco County MPO
Transportation Plan

# Chapter 2

# Review of Historic and Projected Population Estimates

# Review of Historic Census Data

For the MOBILITY 2045 LRTP, Pasco County's historic and future population growth and numbers were examined. Historical trends and projected population growth from the previous LRTPs, the Bureau of Economic and Business Research (BEBR), and Woods & Poole were analyzed to best inform the population projections for the MOBILITY 2045 LRTP.

## County-Wide Growth

Pasco County has seen significant growth since 1970, from a small rural county of 78,000 to a large suburban county with a population rapidly approaching 500,000 people in 2015.

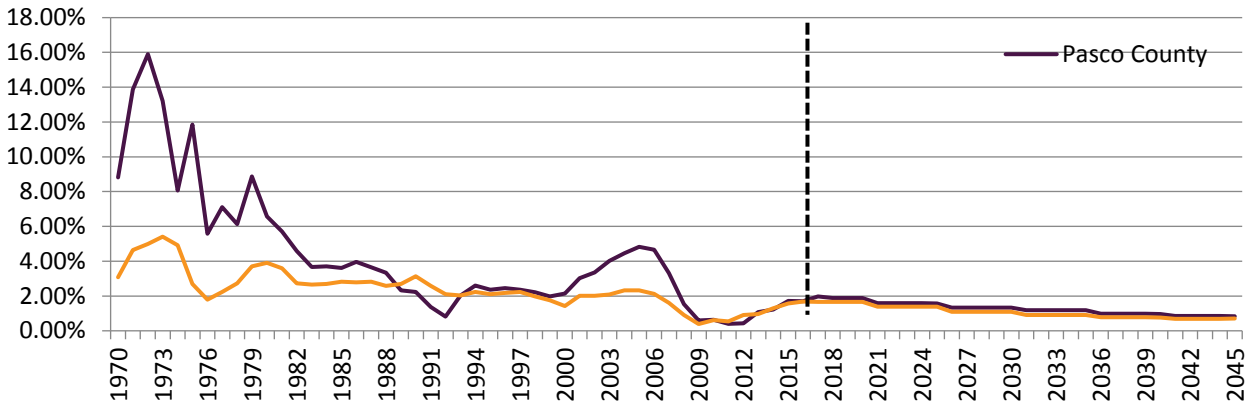
**Table 2-1: Pasco County Historic Census Population (1970–2015)**

| Census Year | Population | 10-Year Growth | Annual Increase |
|---|---|---|---|
| 1970 | 75,955 | 39,170 | |
| 1980 | 193,643 | 117,688 | 9.81% |
| 1990 | 281,131 | 87,488 | 3.81% |
| 2000 | 344,765 | 63,634 | 2.06% |
| 2010 | 464,697 | 119,932 | 3.03% |
| 2015* | 487,588 | 22,891 | 0.97% |

** University of Florida, Bureau of Economic and Business Research, October 2015.*

The average annual growth rate varied significantly between 1970 and 2010. The county experienced its highest annual growth rate between 1960 and 1970, at more than 7%, and between 1970 and 1980, at almost 10%. The growth rate has significantly slowed since 1980, with the county experiencing annualized population increases of less than 4% per year since 1980. Although the rate of population growth has slowed significantly, Pasco County added more residents in the 10-year span between 2000 and 2010 than at any other time, with nearly 120,000 people moving to the county. Growth slowed over from 2016 to 2015, with around 22,000 more people in the county when the nation and region experienced economic decline. Nonetheless, Pasco County's annual population growth rate has generally been well above the statewide average growth rate except for the 1980s and early 2000s. Since 2009, the growth rate for the county and the state are roughly equal, as shown in Figure 2-1.

**Figure 2-1: Annual Population Growth Rate (1970–2045), BEBR 2018 Medium Projection**



## Sub-Area Growth

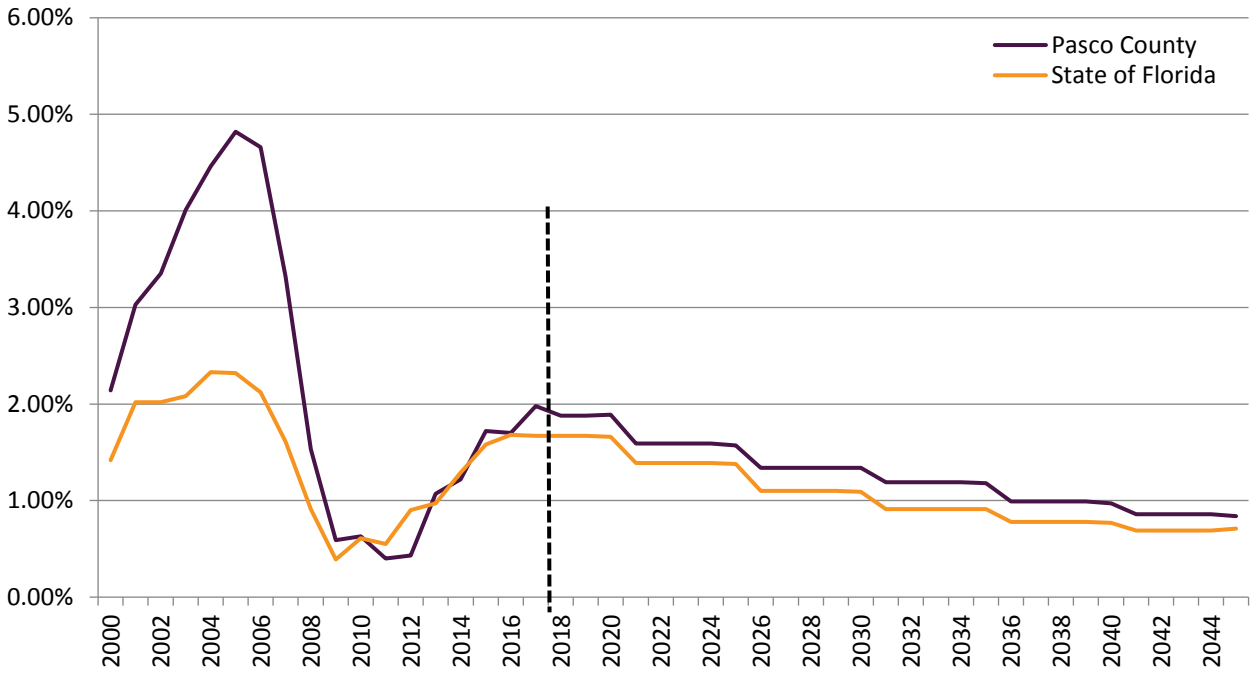
The maps on the following pages illustrate the shifts in historic population for each decennial census year from 1980 to 2010. Notable observations of the dot density maps provided include the following:

- Significant growth along the US-19 corridor
- Significant growth along the SR-54 Corridor, which is expected to continue as the County implements land use regulations directing future growth along the corridor
- Concentrated growth in the incorporated areas of Pasco County
- Growth in the Wesley Chapel and Land O' Lakes Area, particularly beginning in the 2000s

## Population Growth Rates

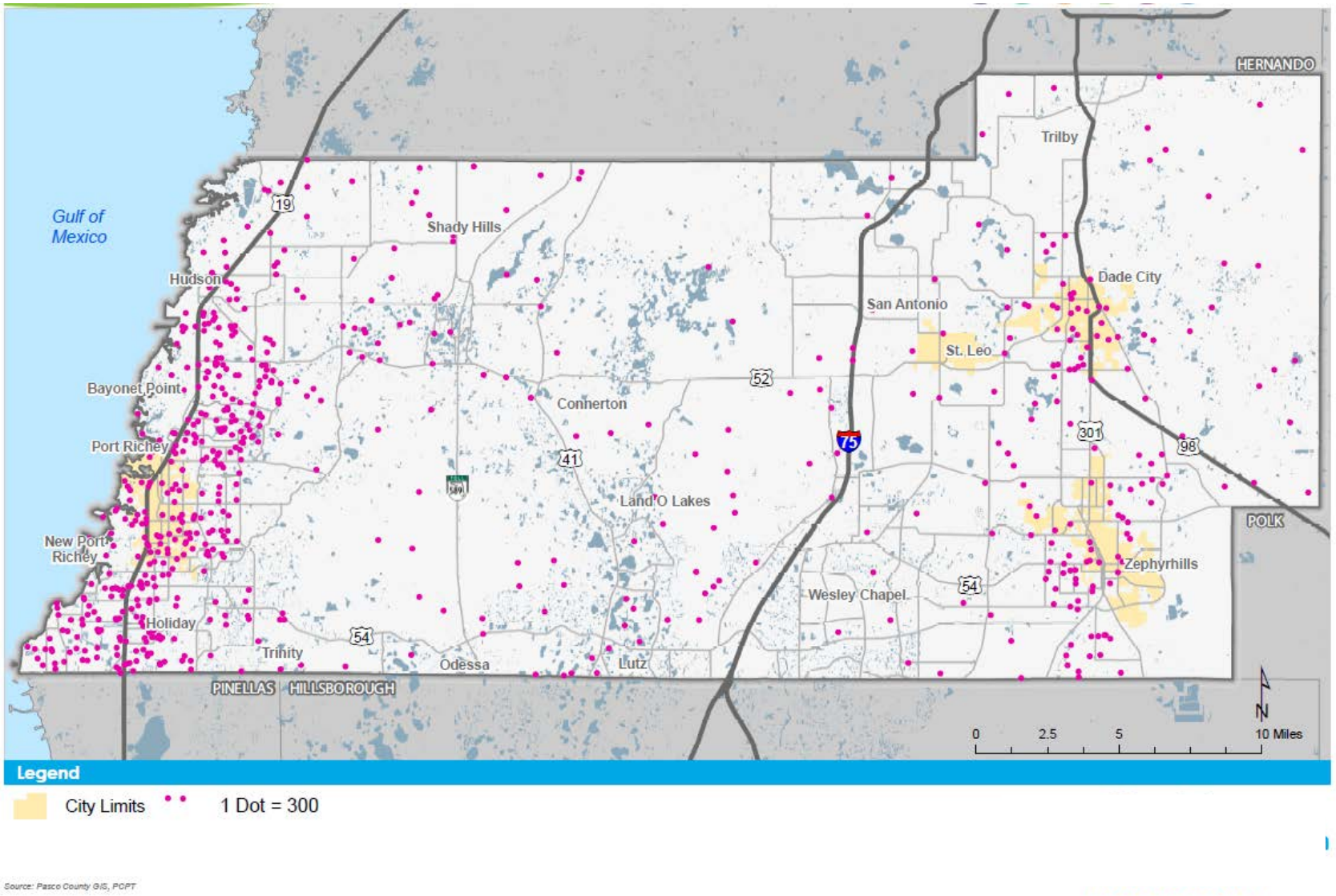
Examining the population growth rate of Florida compared to the population growth rate of Pasco County provides insight on how population growth is distributed across the state and assists in projecting how the population growth in the state will distribute to the county. The BEBR 2018 report shows the medium county growth rate at just above the statewide population growth rate for the range of the projection.

**Figure 2-2: Annual Population Growth Rate, 2000-2045**



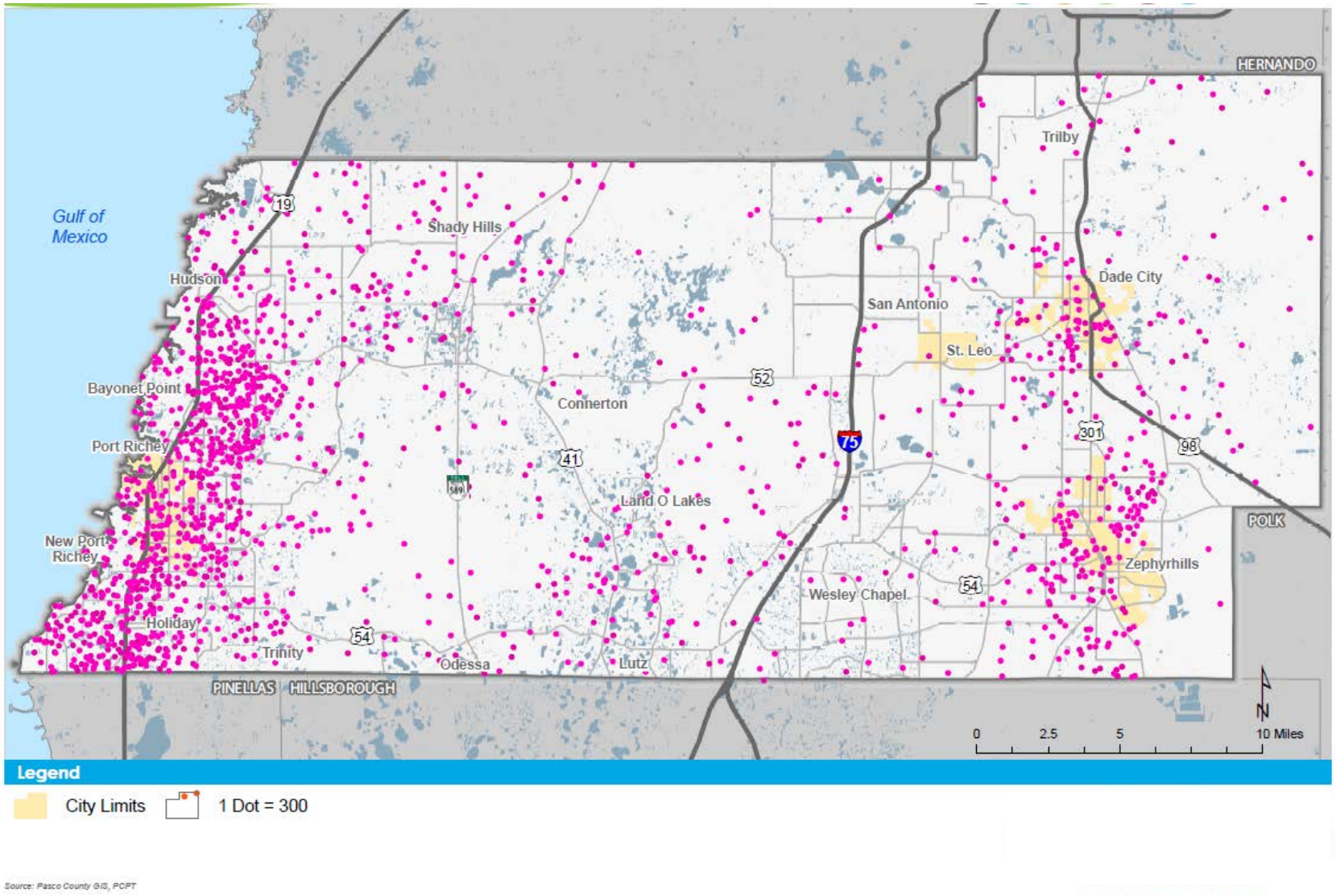

*Source: 2018 FSA, BEBR Medium Projection*

**Map 2-1: 1980 Census Population Dot Density**



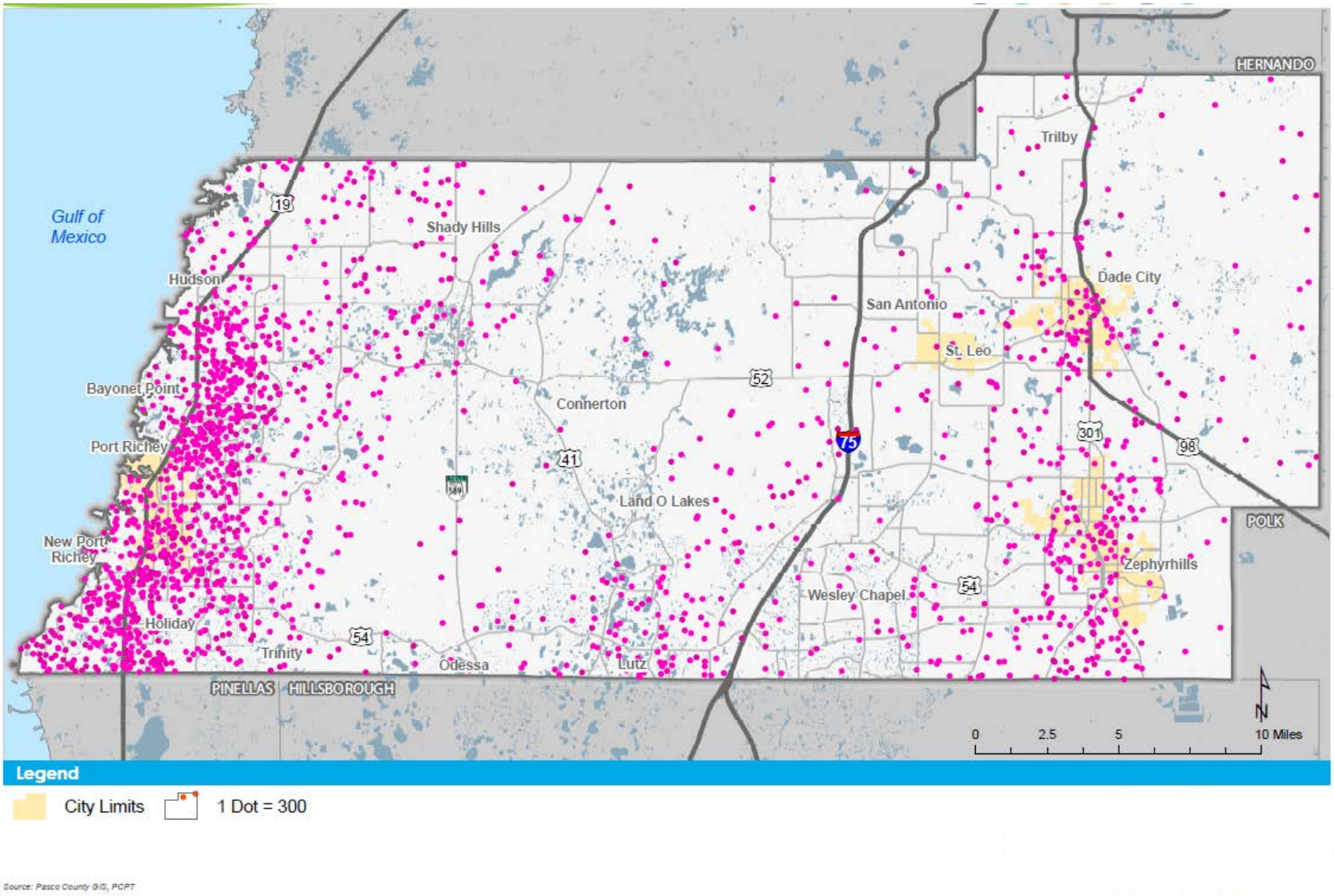

Source: Pasco County GIS, PCPT

**Map 2-2: 1990 Census Population Dot Density**



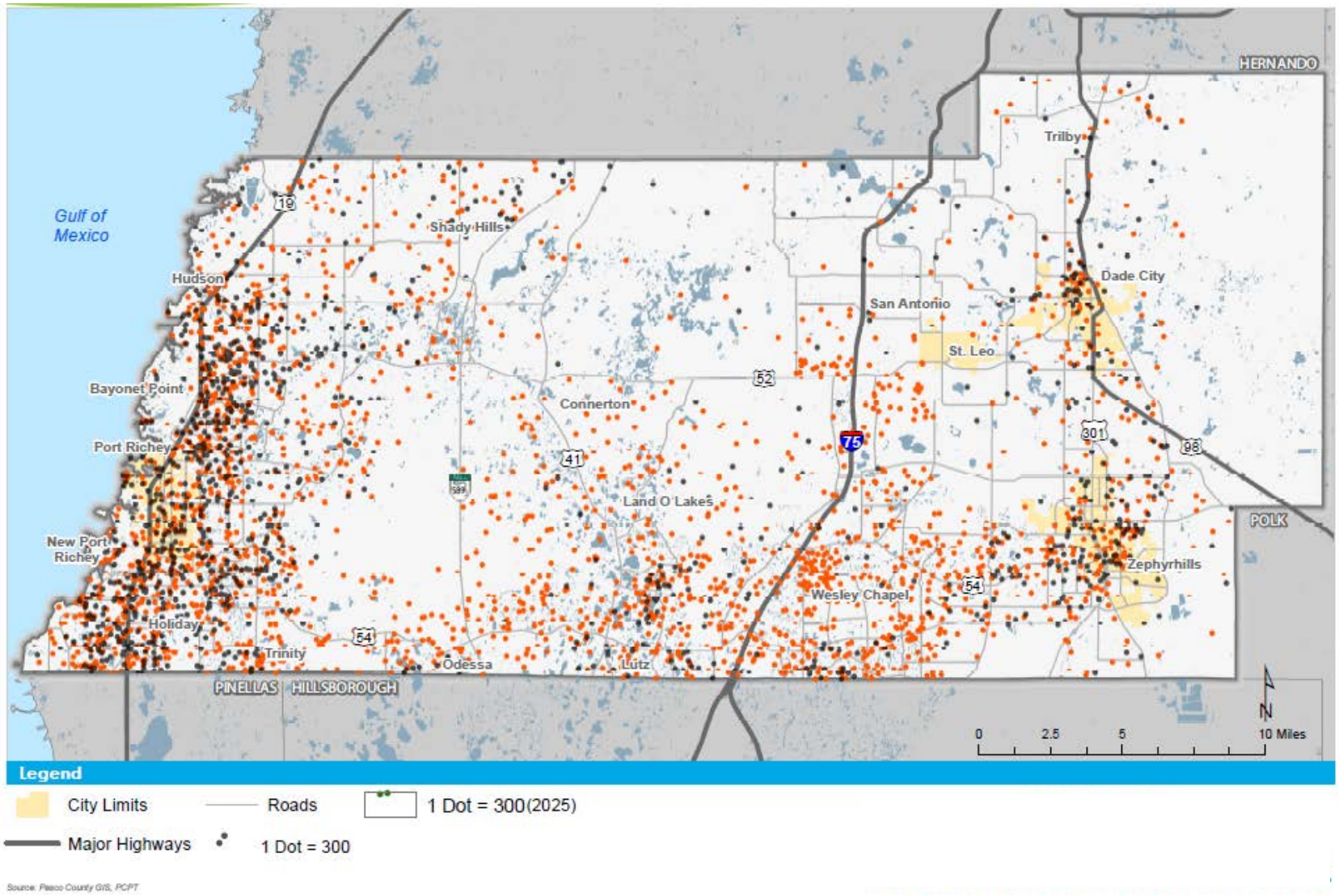

Source: Pasco County GIS, PCPT

**Map 2-3: 2000 Census Population Dot Density**

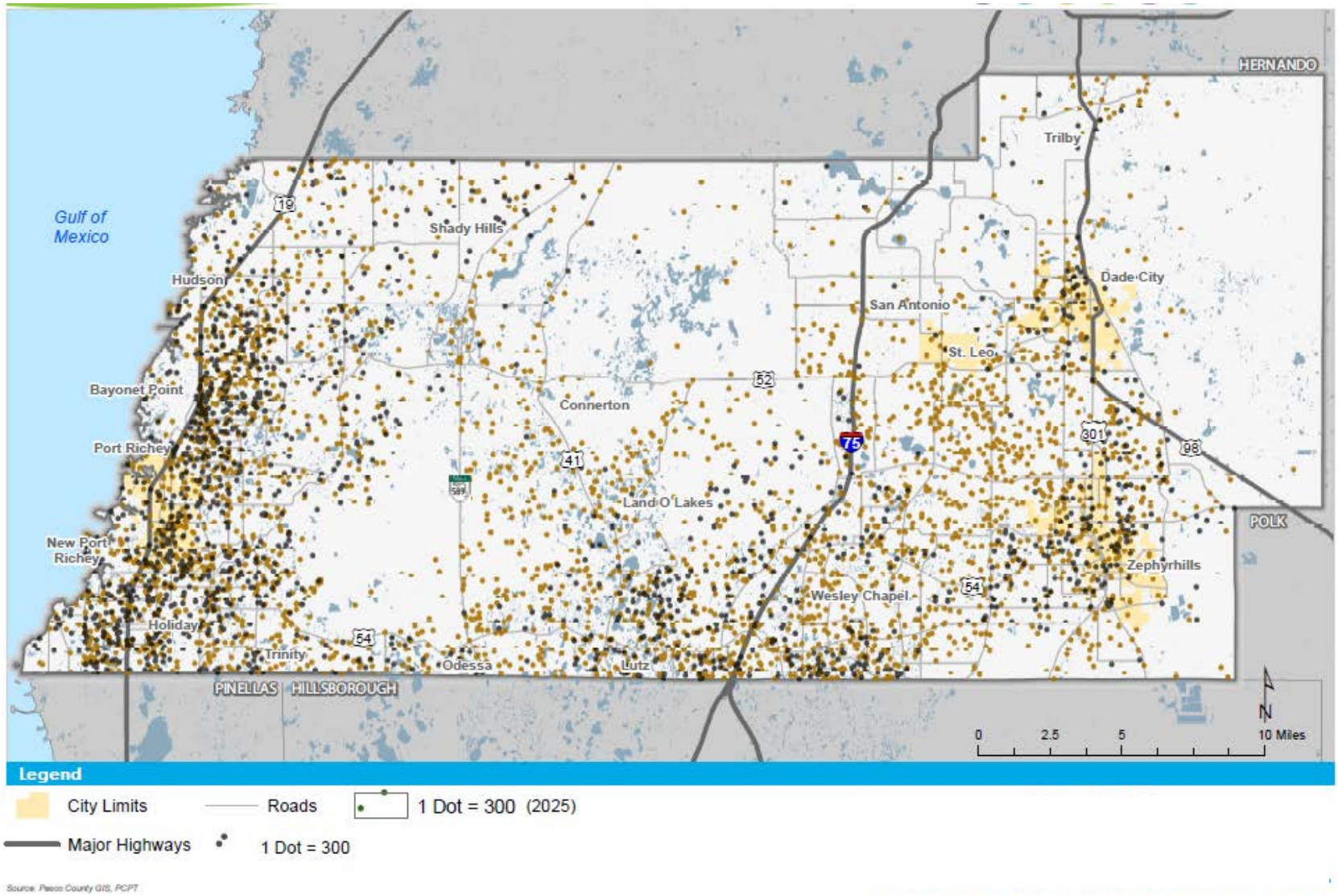



Source: Pasco County GIS, PCPT

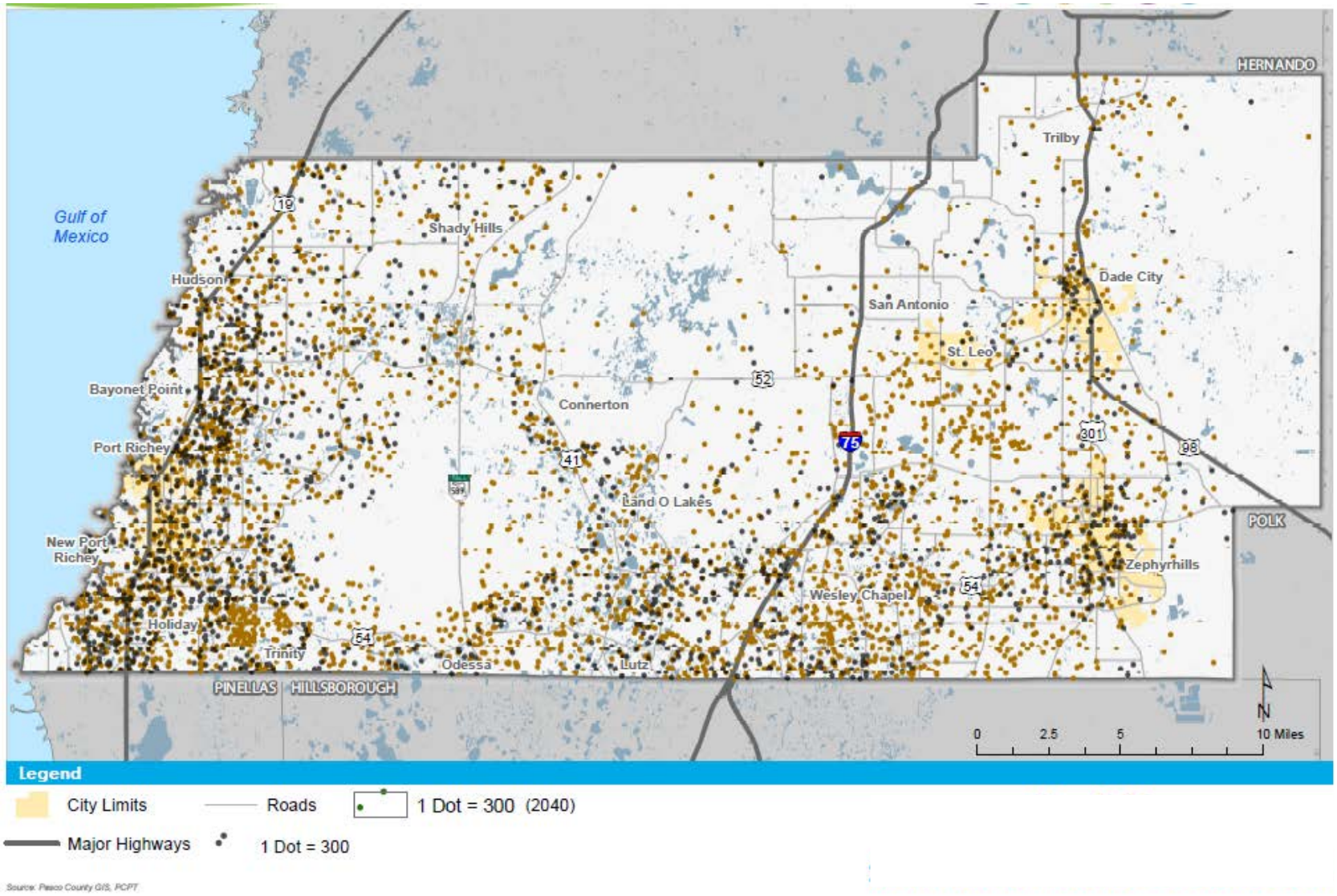
**Map 2-4: 2025 LRTP Anticipated Growth Distribution**



**Map 2-5: 2035 LRTP Anticipated Growth Distribution**



**Map 2-6: 2040 LRTP Anticipated Growth Distribution**



# Review of Previous LRTP Projections

In 1999, the MPO adopted the 2025 LRTP. In accordance with the requirements of Federal transportation legislation, the LRTP has been updated every 3–5 years using the best available projection data from BEBR. BEBR produces Florida's official state and local population estimates and projections based on high-medium-low projections and are used for distributing State revenues, sharing dollars to cities and counties, and budgeting, planning, and policy analysis among a multitude of local, State, and business entities. BEBR's *Florida Statistical Abstract* is published every year.

## 2025 LRTP

The 2025 LRTP was adopted in December 1999 and updated in December 2004. The validation or base year for the population projections was 1996 for the 1999 adoption and 1999 for the 2004 adoption. Interim year estimates of population were provided for 2000, 2005, 2010, 2015, and 2020 for both forecasts.

The original 2025 LRTP (1999 base year, 2001 report) projected a total population of 357,200 by 2005, and the 2004 update to the 2025 LRTP projected a total population of 397,100 for the same year. Based on BEBR's most recent available data (2017), Pasco County's total population in 2005 was 418,113, indicating that both projections used by Pasco County under-anticipated the growth the county would experience during that period. In retrospect, 2000–2010 was the highest decade of total growth in absolute population that has occurred in the county, making the underestimation reasonable.

Similarly, the 2001 and 2004 reports anticipated populations of 409,214 and 505,800, respectively, by 2015. BEBR's most recent available data (2017) showed a population of 487,588 in the county in 2015. In this case, the 2001 report under-estimated the population by nearly 80,000, and the 2004 report overestimated the population by a little over 15,000. In general, the 2004 report was more accurate than the 2001 report for the county's actual population in 2015.

Of note is the nearly 150,000 difference in population estimates between the 2001 and 2004 reports for the 2025 population.

**Table 2-2: Pasco County MPO 2025 LRTP Forecast**

| Category | 1999 | 2005 | 2015 | 2025 |
|---|---|---|---|---|
| Total Population | 325,680 | 357,200 | 409,214 | 460,669 |
| Annualized Growth Rate | | 1.16% | 1.37% | 1.19% |

**Table 2-3: Pasco County MPO 2025 LRTP Update Forecast**

| Category | 2000 | 2005 | 2010 | 2015 | 2020 | 2025 |
|---|---|---|---|---|---|---|
| Total Population | 339,003 | 397,100 | 452,900 | 505,800 | 564,100 | 624,600 |
| Annualized Growth Rate | | 3.21% | 2.66% | 4.49% | 2.21% | 2.06 % |

*Source: SE Data Development Update, Technical Memorandum, September 2004*

## 2035 LRTP

The 2035 LRTP was adopted in December 2009. The validation or base year for the population projections was 2006, with interim year estimates of population for 2010, 2015, 2020, 2025, and 2030.

As shown in Table 2-4, the 2006 report, which used an average of the medium and high BEBR projections, anticipated a population of 474,600 in the county by 2010 and 550,120 by 2015.

BEBR's most recent data (2017) shows the county population in 2010 was 464,697; the 2006 projection overestimated the population by around 10,000 people. Similarly, the 2015 population was 487,588, showing a 2006 projection overestimate of nearly 60,000 people, which is significant. The average of BEBR's medium-high projection was accurate in the short-term, but the further out the data are projected, the less accurate it becomes.

**Table 2-4: Pasco County MPO 2035 LRTP Forecast**

| Category | 2006 | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 |
|---|---|---|---|---|---|---|---|
| Total Population | 424,400 | 474,600 | 550,120 | 625,640 | 701,160 | 776,680 | 852,200 |
| Annualized Growth Rate | | 3.62% | 3.00% | 2.61% | 2.31% | 2.07% | 1.87% |

*Source: SE Data Development Update, Technical Memorandum, December 2008*

## 2040 LRTP

The 2040 LRTP was adopted in December 2014. The validation or base year for the population projections was 2010, with interim year estimates of population for 2015, 2020, 2025, 2030, and 2035.

The 2040 LRTP projections anticipated a population of 476,020 in the county by 2015. The most recent available data from BEBR (2017) shows a population of 487,588 in the county in 2015, indicating that the 2040 LRTP projections underestimated the 2015 population by around 10,000.

**Table 2-5: Pasco County MPO 2040 LRTP Forecast**

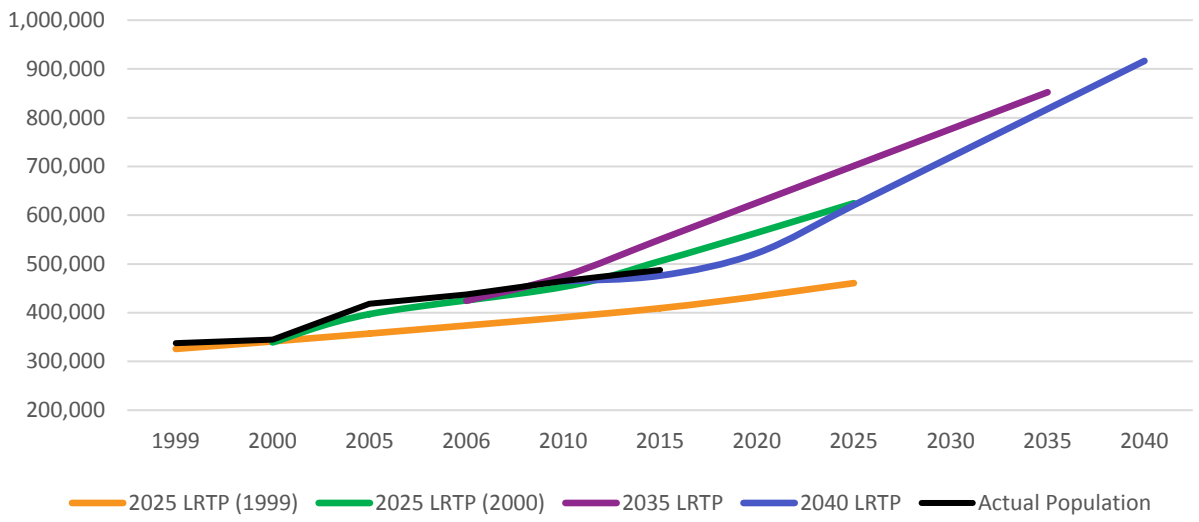
| Category | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| Total Population | 464,697 | 476,020 | 522,026 | 620,620 | 719,213 | 817,807 | 916,400 |
| Annualized Growth Rate | | 0.48% | 1.86% | 3.52% | 2.99% | 2.60% | 2.30% |

*Source: SE Data Mobility Tech Memo, 2040 SE Data Forecast Development, July 2014, BEBR Vol. 46 Bulletin 165*

## LRTP Projections and Actual Population

The population projections for the last four LRTP's are shown in Figure 2-3 along with the actual population between 1999 and 2015. Generally, the 2025 LRTP with the 2000 base year data appears to most accurately capture the population growth that occurred between 2000 and 2015.

**Figure 2-3: LRTP Population Projections and Actual Population**




# Comparison of Forecasting Sources

To better understand the best methodology to use for forecasting population for the 2045 LRTP, projections from BEBR and Woods & Poole Economics were compared, with 2013 and 2017 as the base years for comparison.

## BEBR 2001–2017 Projections

The medium historic and future projections for Pasco County population are shown in Figure 2-4. Historic projections anticipated a population between 533,600 and 438,000 by 2015 (2006 and 2001 projections, respectively); the estimated population in 2015 was actually 487,588, indicating that actual population at least fell within the range of the projected population. Only the three most recent projections developed by BEBR, (2015, 2016, 2017) include estimates for 2045, which range from 757,100 to 719,100.

## BEBR vs. W&P 2013 Comparison

The BEBR and W&P projections developed in 2013 are shown in Figure 2-5. For the 2040 LRTP, BEBR's high projection was used for estimating the 2040 population. Although the LRTP estimates for the interim years do not match BEBR's high projection population numbers, they were used as a basis; the high projection estimated a county population of 525,100 by 2015 and a medium projection of 495,400; the W&P projection anticipated 513,660 people in the county by 2015.

The 2045 estimates for BEBR and W&P greatly differ. The lowest estimates for the 2040 population are the BEBR medium, which anticipates a population of 727,300, and the BEBR high anticipates 916,400. The W&P projection falls in the middle, estimating 805,894 by 2040, and is similar to the average of BEBR medium and high projections of 821,850.

Figure 2-4: BEBR Medium Projections (2001–2017)

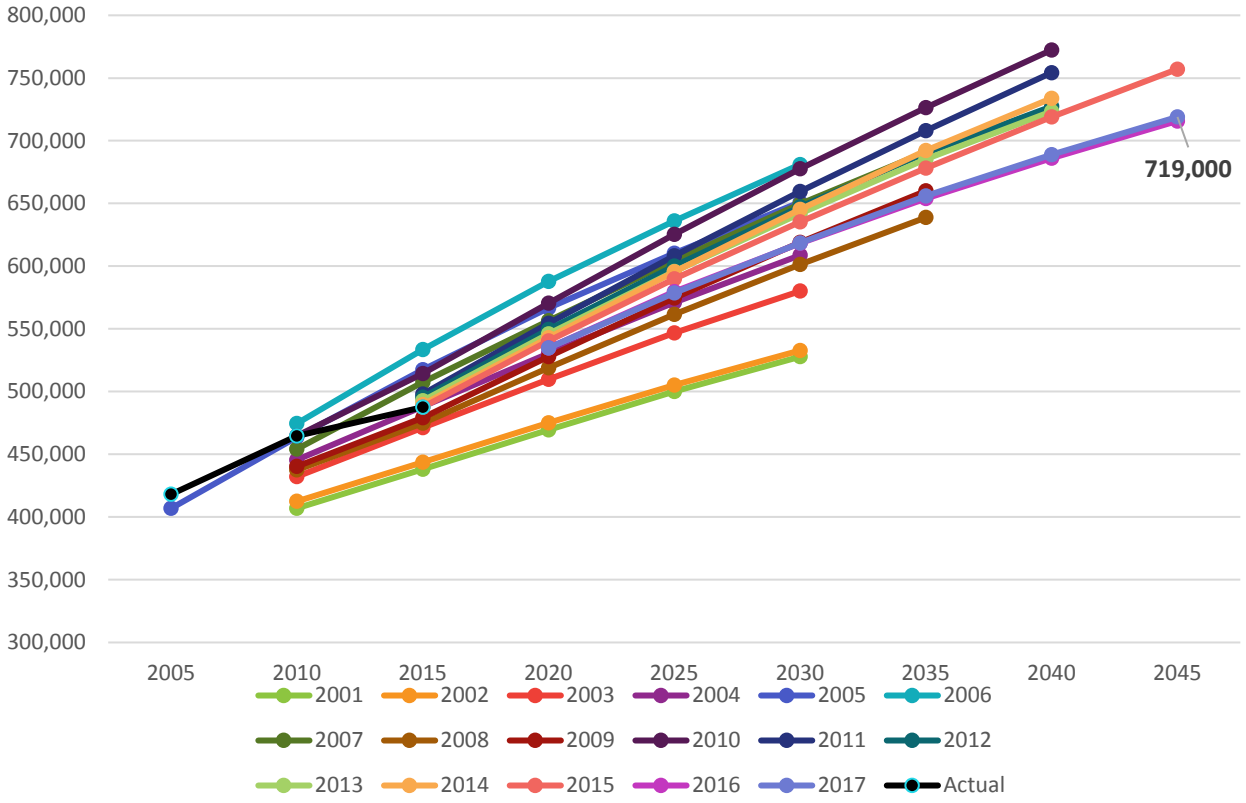
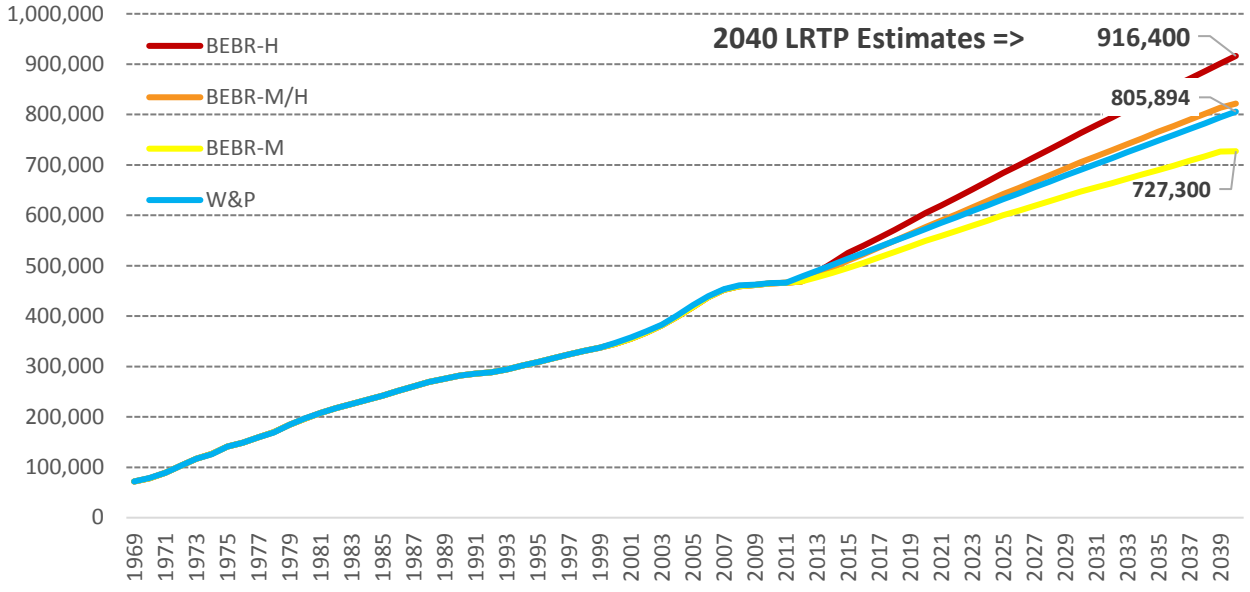


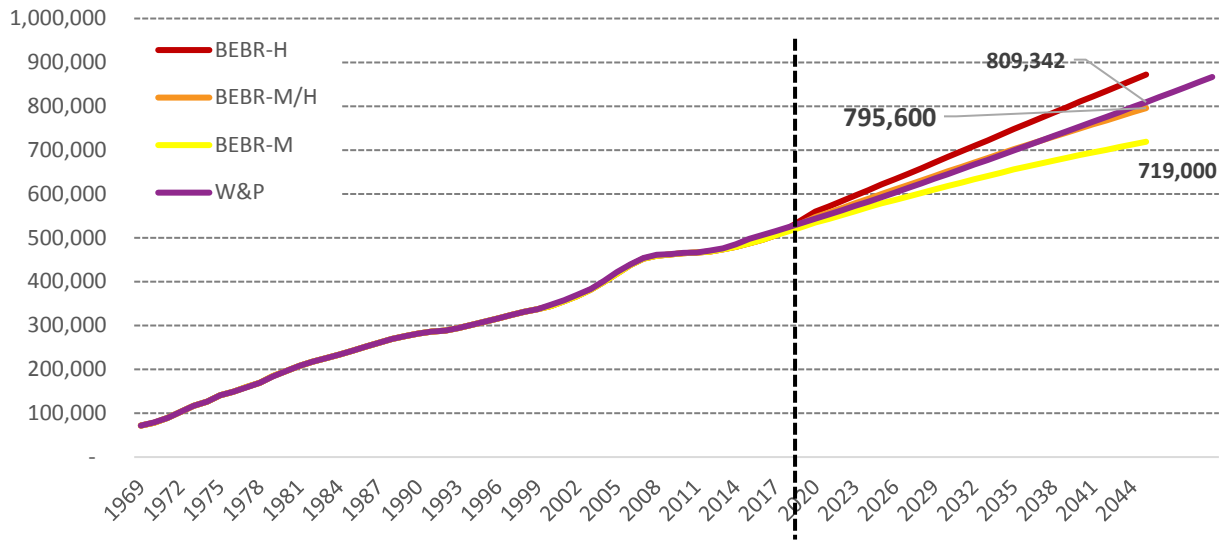

Figure 2-5: BEBR vs. W&P 2013 Projections



## BEBR vs. W&P 2017 Comparison

The most recent projections from BEBR and W&P use 2017 as a base year and are shown in Figure 2-6. Similar to the numbers above, the lowest estimate for 2045 is the BEBR medium projection of 719,000, and the highest is the BEBR high projection at 809,342. The W&P projection and the average of BEBR's medium and high projections fall similarly close to each for their 2045 estimates, at 809,342 and 795,600, respectively.

**Figure 2-6: BEBR vs. W&P 2017 Projections**




# Conclusions for Developing 2045 Population Forecast

The last 10 years of growth in Pasco County have not seen the extremely high rates seen in previous decades. Estimates of future population from BEBR are responding to the slowing of growth, which the BEBR high estimate has typically overestimated. The W&P estimates have been fairly consistent and accurate over the past five years, with population projections in line with BEBR's M/H projection, thus providing two data sources that result in similar 2045 populations. Based on this analysis, it is recommended that the 2045 LRTP use the BEBR M/H population projection, which estimates 795,600 in 2045.

## Population and Employment Forecasts

A critical component of any long-range planning process is establishing existing demographic conditions and determining how these are likely to change in the future based on trends, policies, and other factors affecting growth. These socioeconomic forecasts help create the context for which transportation investments can be planned and prioritized and help answer not only how much Pasco County is anticipated to grow over the next 25 years but also roughly where and when this growth and development are expected to occur. Once established, forecasted population and employment can help determine potential changes in travel patterns or major trip generators, which, in turn, can help identify unmet needs in Pasco County's existing transportation system.

### *Development of Projections*

Using 2015 as the base year and 2045 for the horizon year, the population and employment forecasting models used for MOBILITY 2045 incorporated multiple data sources to develop sound forecasts for the coming decades. After being developed, estimated projections for population and employment were distributed throughout the county using CommunityViz software based on approved developments and Pasco County's Future Land Use Map. Table 2-6 shows how future population and employment growth was allocated to different County Market Areas, consistent with the Pasco County Comprehensive Plan.

**Table 2-6: Population and Employment Growth Allocation to Pasco Market Areas**

| Market Area | Population Growth | Employment Growth |
|---|---|---|
| Gateway Crossing (South) | 56% | 68% |
| Harbors (West) | 10% | 4% |
| Midlands (Central) | 28% | 21% |
| Highlands (East) | 3% | 5% |
| Countryside (North) | 3% | 2% |

### *Anticipated Growth in Pasco County*

Similar to many other parts of Florida, Pasco County has experienced rapid growth since the latter part of the 20th century. Since 1970, its population has grown from roughly 75,000 residents to well over half a million residents today. Historically, most growth has occurred along the US-19 and SR-54 corridors, and also in the Wesley Chapel and Land O' Lakes areas beginning in the 2000s.

Pasco County's population is forecast to grow from the 2015 level of approximately 474,000 to more than 785,000 by 2045, and employment is expected to grow from approximately 157,000 to more than 266,000 during that same time period, an approximate overall increase of an 311,000 residents and 109,000 employees that represents a growth in population and employment of 66% and 69%, respectively, over the next 25 years.

Future employment forecasts in Pasco County were developed based on the assumption that the population-to-jobs ratio would remain relatively constant when comparing total jobs with population. Growth assumptions for certain sectors were developed through coordination with the County's Office of Economic Growth. Table 2-7 summarizes the employment forecasts by job type and shows that the largest amount of absolute growth is expected to occur in the service sector, given its large base of existing jobs, and the percentage growth in industrial jobs is expected to double between 2015 and 2045.

**Table 2-7: Employment Forecast by Employment Type**

| Variable | 2015 | 2035 | 2045 | 2015–2045 Growth |
|---|---|---|---|---|
| Industrial | 26,500 | 43,362 | 53,318 | 26,818 |
| Industrial/Employment | 17% | 19% | 20% | n/a |
| Commercial | 37,600 | 54,484 | 63,643 | 26,043 |
| Commercial/Employment | 24% | 24% | 24% | n/a |
| Service | 93,400 | 130,376 | 149,631 | 56,231 |
| Service/Employment | 59% | 57% | 56% | n/a |
| Total Employees | 157,500 | 228,222 | 266,592 | 109,092 |

MOBILITY 2045

Pasco County MPO
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# Chapter 3

# Socio-Cultural Resources and Environmental Justice

# Introduction

The community-level, social-cultural, and environmental justice (EJ) profile presents geographic analysis, quantitative analysis, and findings from public involvement to describe the circumstances of under-represented or under-served populations (referred to in this document as "focus populations") in Pasco County. These populations include racial and ethnic groups, persons of low-income, persons with disabilities, and older adults. The profile aims to identify transportation impacts, needs, and improvements related to these focus populations.

The following sections are included in this chapter:

- **Data Overview** provides information on data sources used for the community profile.
- **Community Facilities & Services** provides an inventory of community facilities and services in Pasco County that may be important to focus populations, including parks and recreation facilities, libraries, schools, hospitals, and cultural and older adult facilities; also identifies various law enforcement agency and fire station locations.
- **Countywide Demographic Profile** provides countywide demographic information on populations of focus to contextualize analysis and input gathered for specific areas.
- **Environment Justice Profile Summary** provides a background on EJ in transportation planning, an overview of factors considered in identifying EJ areas (defined by FHWA as those with high concentrations of minority and/or low-income populations) and other protected populations to define Equity Assessment Areas, and a geographic analysis to identify these areas in Pasco County.
- **Public Involvement** summarizes public involvement activities verifying findings from Equity Assessment Area analysis and identifying transportation impacts, needs, and potential improvements for focus populations.
- **Analysis Of LRTP Projects** applies the findings from the socio-cultural and EJ analysis and public outreach to inform LRTP projects.

# Data Overview

As summarized below, two primary sources of data were used in developing the demographic/EJ community profile for MOBILITY 2045.

## U.S. Census Dataset

The U.S. Census is compiled every 10 years, assembling demographic information for every person in the U.S., and the census dataset provides the demographic data with the highest degree of data accuracy. Data are organized geographically in standard census block groups, the smallest geographic unit available for map illustration purposes. Data from the most recent census (2010) were used. In some cases, 2000 census data are used for historical comparisons.

## American Community Survey Dataset

The American Community Survey (ACS) is administered every year and is a compilation of demographic information from a sampling extrapolated to the total population. ACS data are available over one-, three-, or five-year increments and are organized geographically in census block groups. The dataset used primarily in this analysis is the 2012–2016 five-year dataset, the latest data available when analysis this project began.

As noted, FHWA defines EJ areas as those with high concentrations of minority and low-income populations. Ideally, related information should be compiled from the U.S. Census 2010 dataset; however, although racial and ethnic population information was available at the time of this analysis, low-income information was not. Consequently, this EJ profile relies on low-income information from the ACS dataset.

# Community Facilities & Services

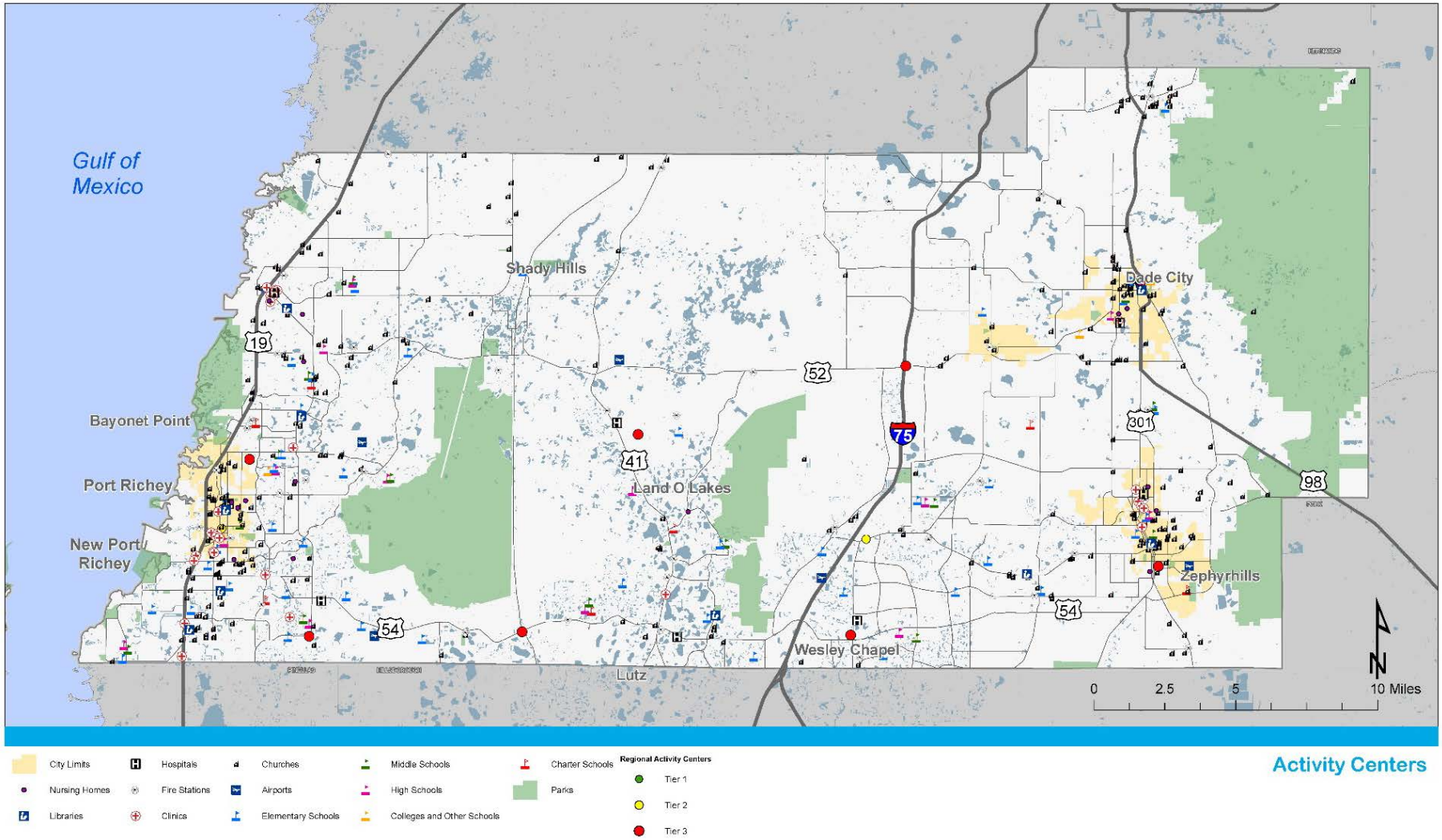
Community facilities and services are important for maintaining quality of life; the number and distribution of these facilities and services important, as are the ability to access them, an important consideration for the LRTP. Table 3-1 shows summary information for community facilities and services in Pasco County, and Map 3-1 shows their locations. Future transportation projects that provide access to these community facilities will have positive social-cultural impact.

**Table 3-1: Summary of Community Facilities**

| Facility Type | Number of Facilities |
|---|---|
| **Nursing homes** | 17 |
| **Libraries** | 9 |
| **Hospitals/clinics** | 35 |
| **Fire stations** | 44 |
| **Churches** | 288 |
| **Airports** | 5 |
| **Elementary schools (grades K-5)** | 45 (33,712 students) |
| **Middle schools (grades 6-8)** | 15 (17,482 students) |
| **High schools (grades 9–12)** | 13 (22,481 students) |
| **Charter schools** | 7 |
| **Colleges and other school facilities** | 4 |
| **Parks** | 84 |

*Source: Pasco County GIS, PCPT; enrollment data from Florida Department of Education, 2018-19*

**Map 3-1: Community Facilities**



# Countywide Demographic Profile

This section provides general demographic information about the county that helps contextualize analysis of EJ populations later in this report.

## Racial and Ethnic Information

Table 3-2 shows the percent of the Hispanic or Latino and Black or African-American populations in Pasco County for 2000 and 2016. The Hispanic or Latino population increased from 5.7 to 13.4 percent, an increase of approximately 135 percent. The Black or African-American population increased from 2.1 to 5.1 percent, an increase of roughly 143 percent.

**Table 3-2: Racial and Ethnic Percentages, Pasco County, 2000 and 2016**

| Racial or Ethnic Group | 2000 | 2016 | Percent Change |
|---|---|---|---|
| Hispanic or Latino | 5.7% | 13.4% | 135% |
| Black or African-American | 2.1% | 5.1% | 143% |

*Source: 2000 Census and American Community Survey, 2016*

## Age Distribution

Table 3-3 presents the age breakdown for Pasco County and Florida. The age distribution in Pasco County is somewhat similar to Florida as a whole; however, Pasco County has a slightly higher percentage of population age 65 and over (22.4% vs. 19.1%%). Additionally, Florida has a slightly higher percentage of population between the ages of 15 and 44 (37.3% vs. 33.7 %).

**Table 3-3: Age Distribution, Pasco County and Florida, 2016**

| Age Category | Pasco County | Florida |
|---|---|---|
| Under 15 | 16.8% | 16.8% |
| 15–44 | 33.7% | 37.3% |
| 45–64 | 27.0% | 26.7% |
| 65 and over | 22.4% | 19.1% |

*Source: American Community Survey, 2016*

## Persons Below Poverty Level

Figure 3-2 illustrates the recent trend in the percentage of persons below the poverty level in Pasco County for 2012–2016. In 2012, it was 13.7%, followed by a major peak in 2014, at 14.3%; by 2016, the poverty percentage dropped back to 13.6%, nearly matching the 2012 level.

**Figure 3-1: Percent of Persons Below Poverty Level in Pasco County, 2012–2016**


*Source: American Community Survey, 2016*

# Environment Justice Profile Summary

EJ is broadly defined by FHWA as "identifying and addressing disproportionately high and adverse effects of FHWA's programs, policies, and activities on minority and low-income populations to achieve an equitable distribution of benefits and burdens." FWHA considers EJ in all phases of project development, including planning, environmental review, design, right-of-way, construction, and maintenance and operations. FHWA also considers EJ in all other programs and activities, such as public involvement, freight planning, safety, Tribal consultation, and the Title VI civil rights program.[1] Outside of EJ and Title VI, Federal laws protect a variety of other groups including, but not limited to, older adults, persons with a disability, and those who have limited English proficiency (LEP).

Like many Florida counties, Pasco County is made up of a mix of ethnicities, incomes, and individuals of diverse needs. Identifying concentrations of populations with diverse needs across the county aids in assessing the demands and impact on Pasco County's transportation and transit system and helps target public investments to areas with specific needs in an efficient manner. The following five factors, based on socio-economic measures from the U.S. Census Bureau's 2016 ACS 5-year estimates, were used to identify EJ areas and concentrations of other protected groups, also known as Equity Assessment Areas, in Pasco County:

- **Below Poverty** – low-Income persons, persons or households whose median household income is at or below U.S. Department of Health and Human Services (HHS) poverty guidelines. The 2016 HHS guidelines are presented in Table 3-4. The 2016 ACS 5-year dataset uses the 2016 HHS poverty guidelines to determine how many households are considered low-income in the county. For reference, county-wide average household size is 2.519, and the average median income is $47,970.

**Table 3-4: 2016 Federal Household and Poverty Thresholds**

| Persons in Family/Household | Poverty Guideline |
|---|---|
| 1 | $11,800 |
| 2 | $16,020 |
| 3 | $20,160 |
| 4 | $24,300 |
| 5 | $28,440 |
| 6 | $32,580 |
| 7 | $36,730 |
| 8 | $40,890 |

*Note: For families/households with more than 8 persons, add $4,160 for each additional person.*
*Source: https://aspe.hhs.gov/computations-2016-poverty-guidelines*

[1] https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_fhwa/.

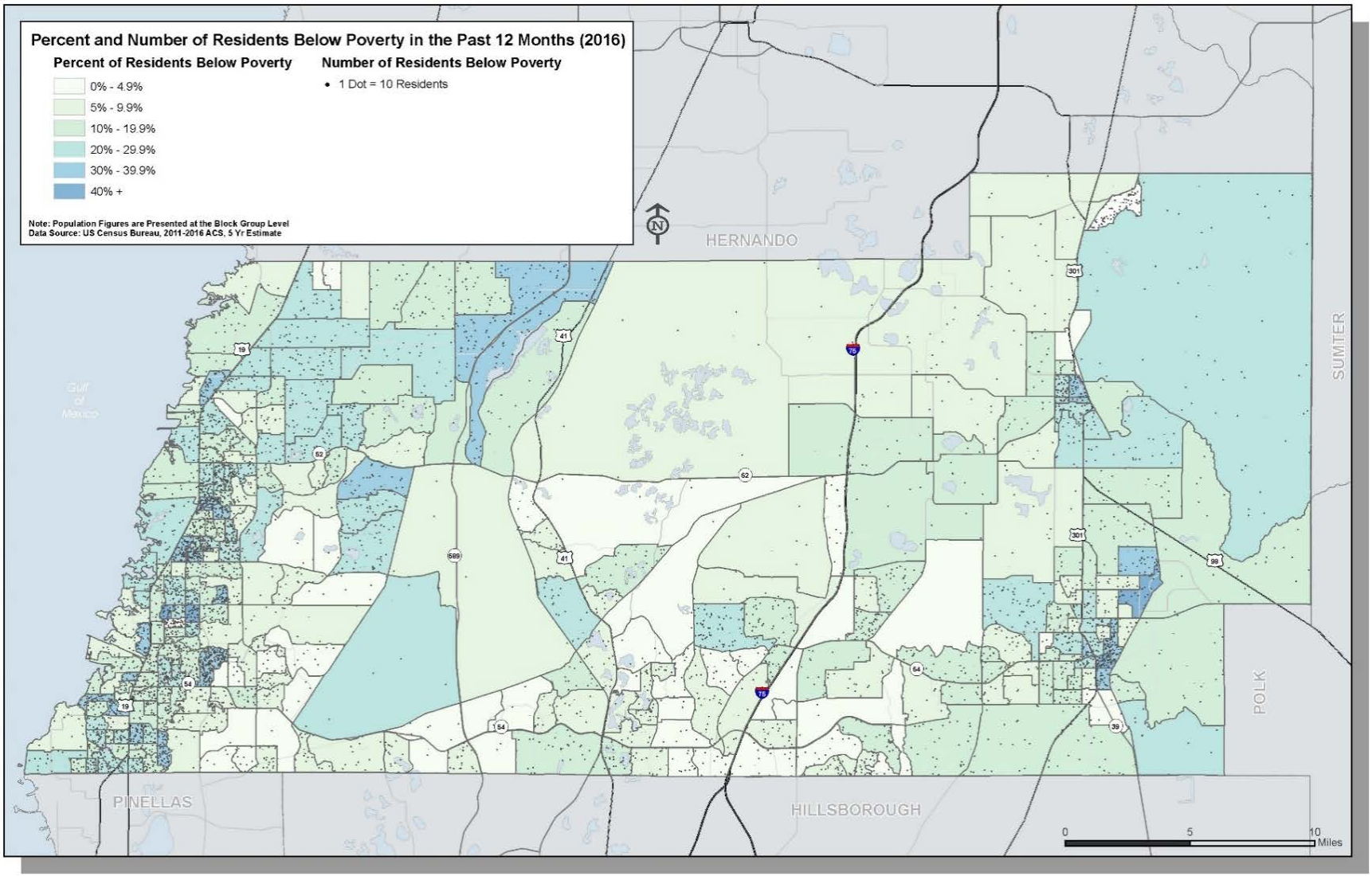
- **Non-white/non-Hispanic** – percentage of the population that identify themselves as a race other than white or of Hispanic origin.
- **Hispanic** – percentage of the population that identify themselves as of Hispanic origin.
- **English proficiency** – percentage of people age 5 or older who identify as speaking English less than "very well."
- **Age 65 or older** – percentage of population age 65 or older.
- **Zero vehicle households** – percentage of population without access to a vehicle.

## Environmental Justice Profile Map Series

The maps in this section presents a preliminary geographic analysis of each factor contributing to the EJ profile detailed further in the next section (data shown by block group):

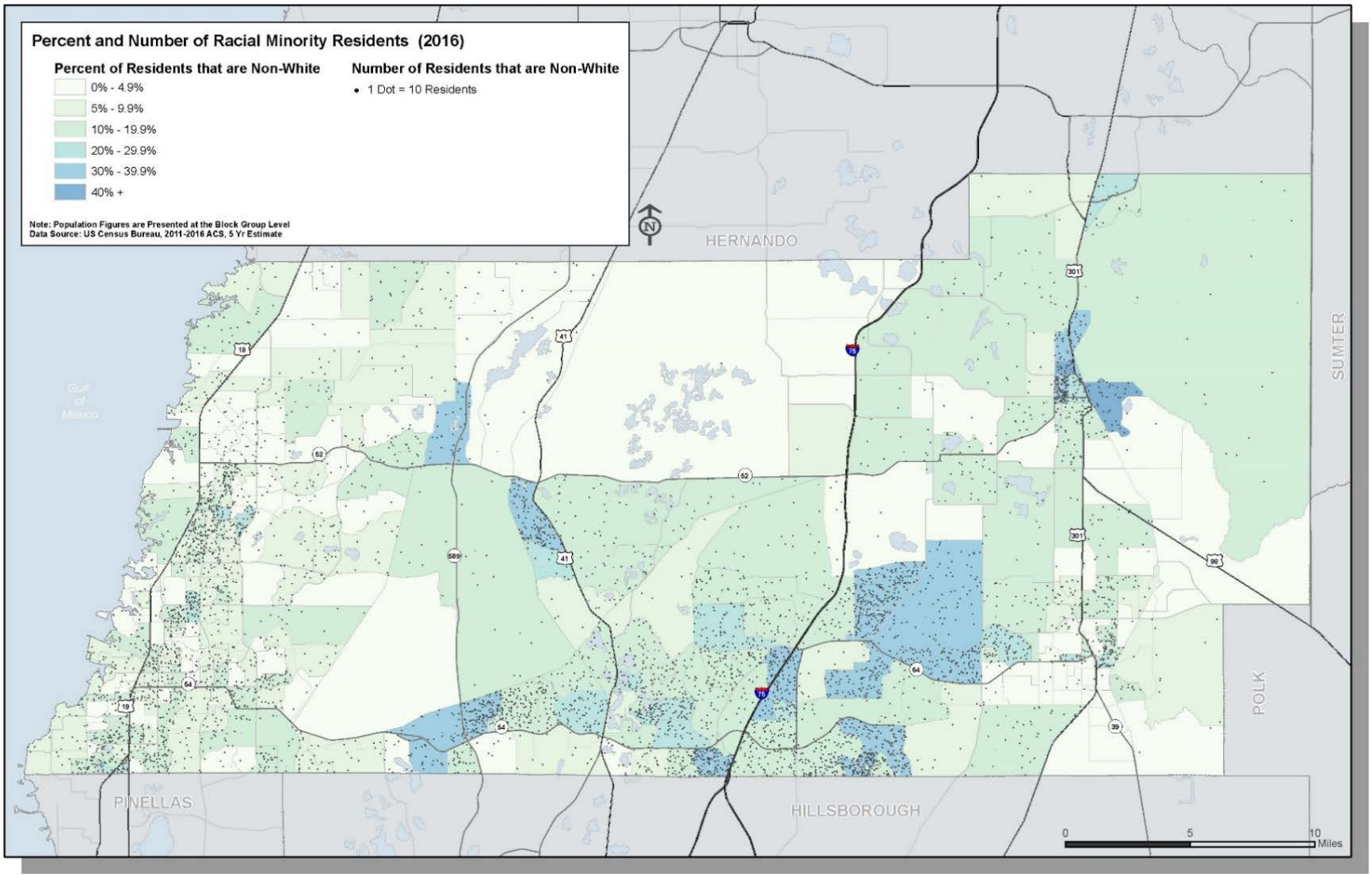
- Map 3-2 illustrates the population below poverty in the 12 months prior to the 2016 ACS estimate. Block groups with higher percentages of residents below poverty are located primarily in the Zephyrhills, Dade City, and western coastal areas.
- Map 3-3 illustrates residents who do not identify as white. Block groups with higher percentages are located along SR-54 and SR-56 in the southern part of Pasco and around Dade City, with a few along US-41 and SR-589 near SR-52.
- Map 3-4 illustrates the Hispanic population. Block groups with higher percentages are located primarily along the southern part of the US-19 corridor; in the southern part of the county along SR-54 and SR-56, US-41, and I-75; and around Dade City. Note that the large block group in the northeastern part of the county showing a relatively high percentage of Hispanics overlaps with conservation areas.
- Map 3-5 illustrates residents with a relatively low proficiency of speaking English. Shares for this category are generally lower but show the highest concentration around Dade City and slight elevations along the southern part of the US-19 corridor and in the southern part of the county along SRs 56 and 56, US-41, and I-75.
- Map 3-6 illustrates population age 65 and older. Block groups with 50 percent or more of this age group are dispersed west of SR-589 and concentrated around Zephyrhills and southeast of Dade City, with one high percentage block group at the intersection of I-75 and SR-52.
- Map 3-7 illustrates households without a vehicle. Block groups with relatively higher shares of these households are located primarily along the US-19 corridor and around Zephyrhills and Dade City, with one high percentage block group near the northeast corner of the county.

**Map 3-2: Residents Below Poverty in Last 12 Months (2016)**



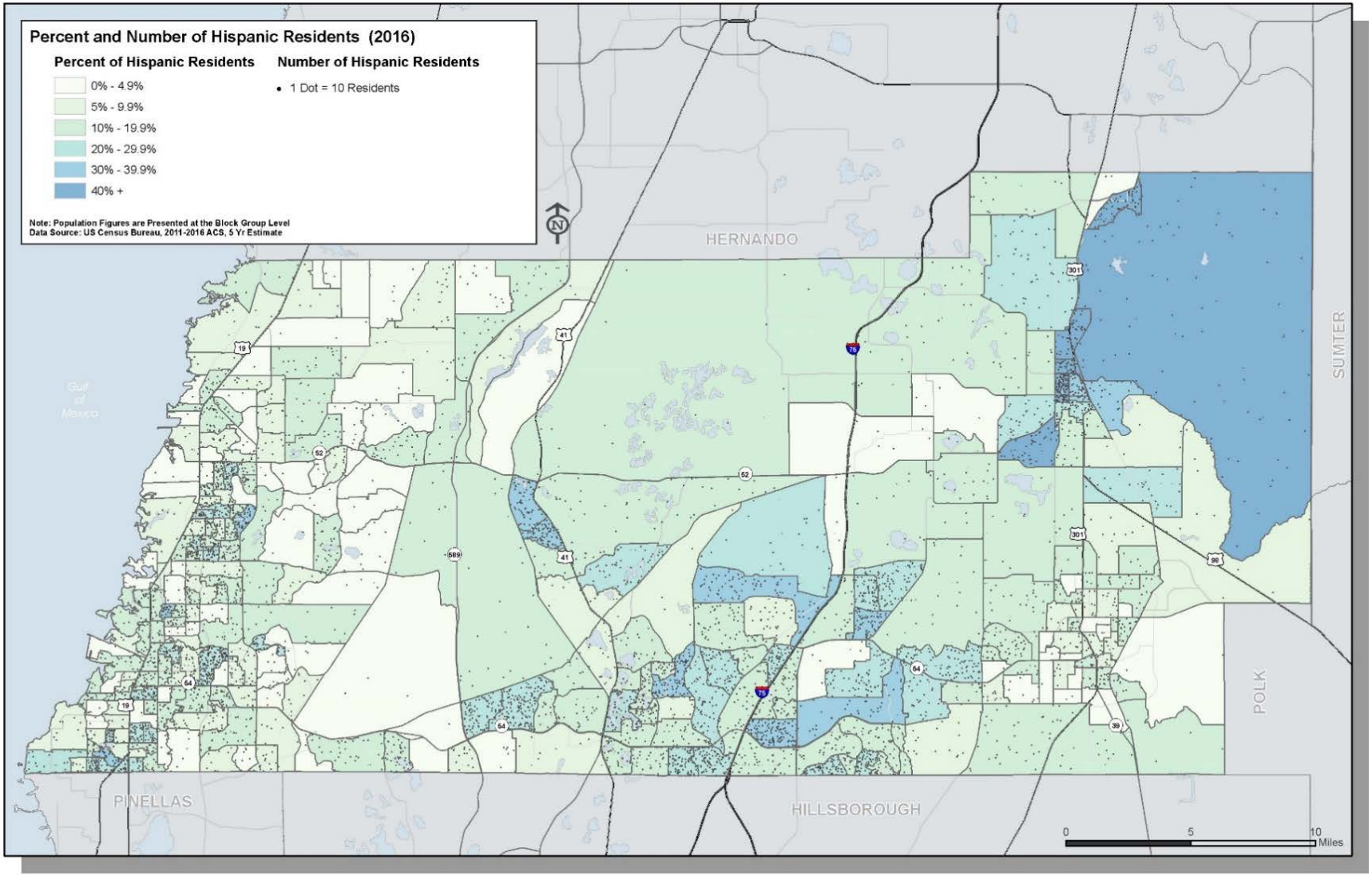

*Source: AECOM*

**Map 3-3: Non-White Residents**



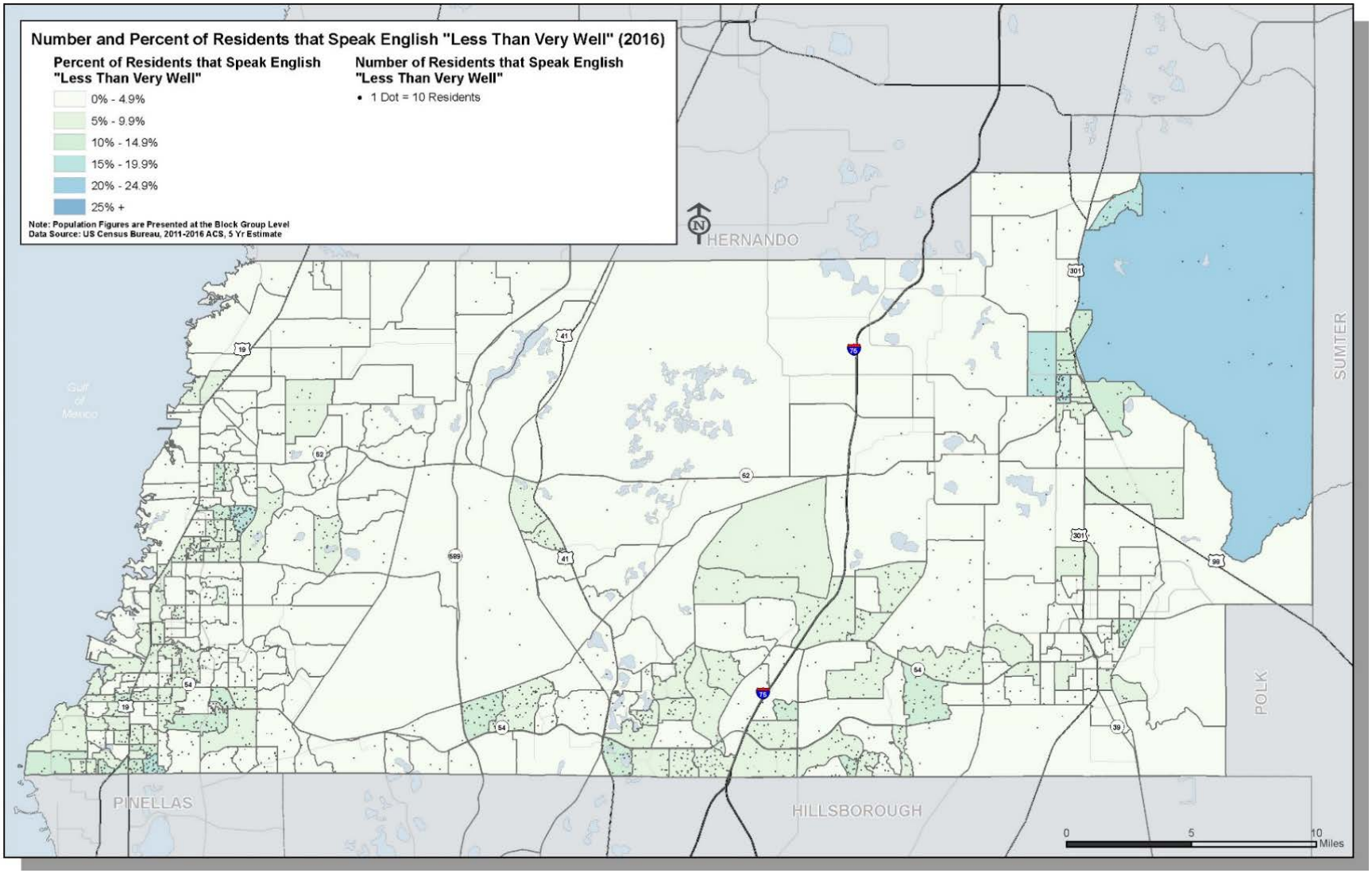

*Source: AECOM*

**Map 3-4: Hispanic Residents**



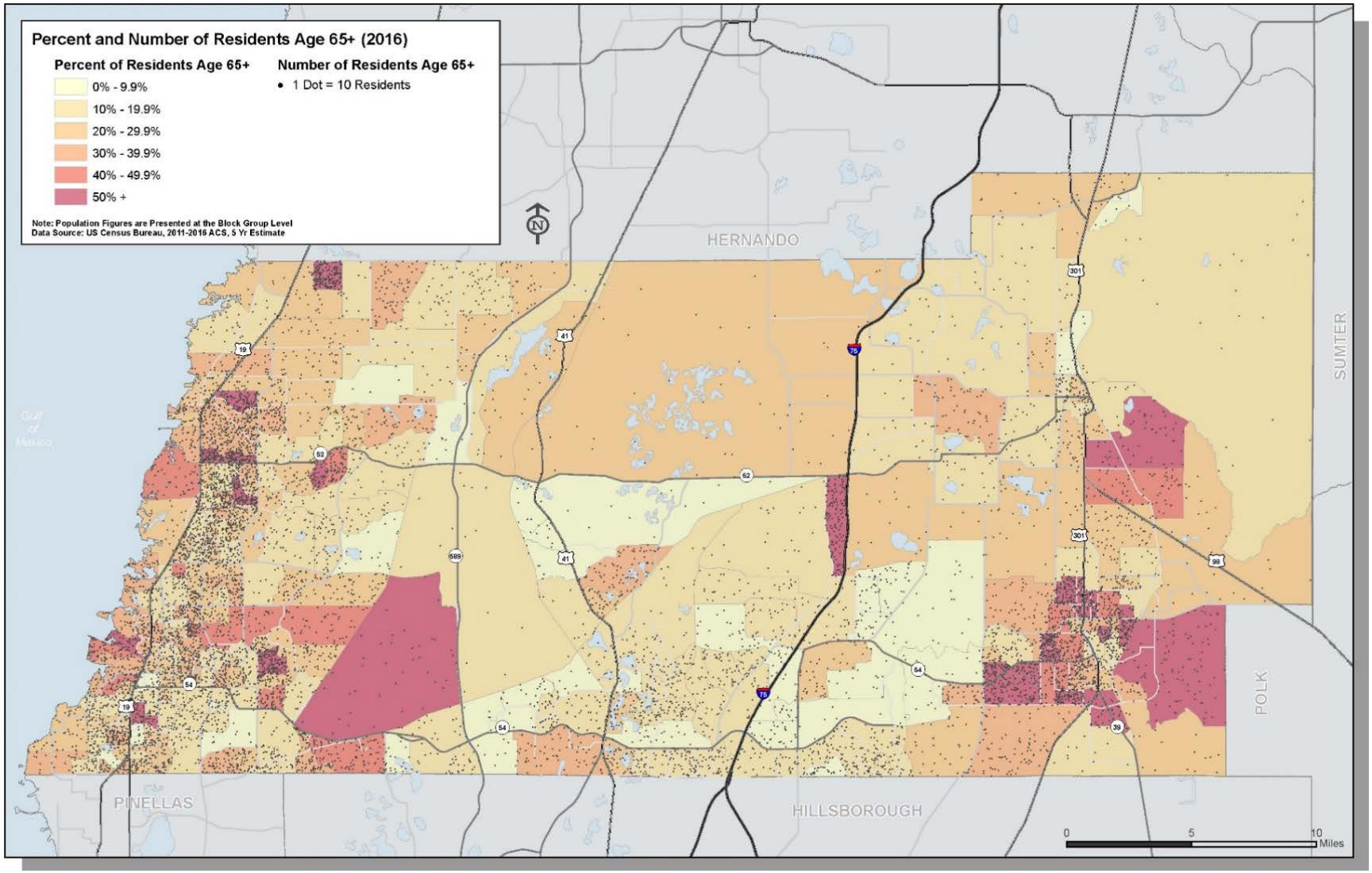

*Source: AECOM*

**Map 3-5: Residents Who Speak English "Less Than Very Well"**



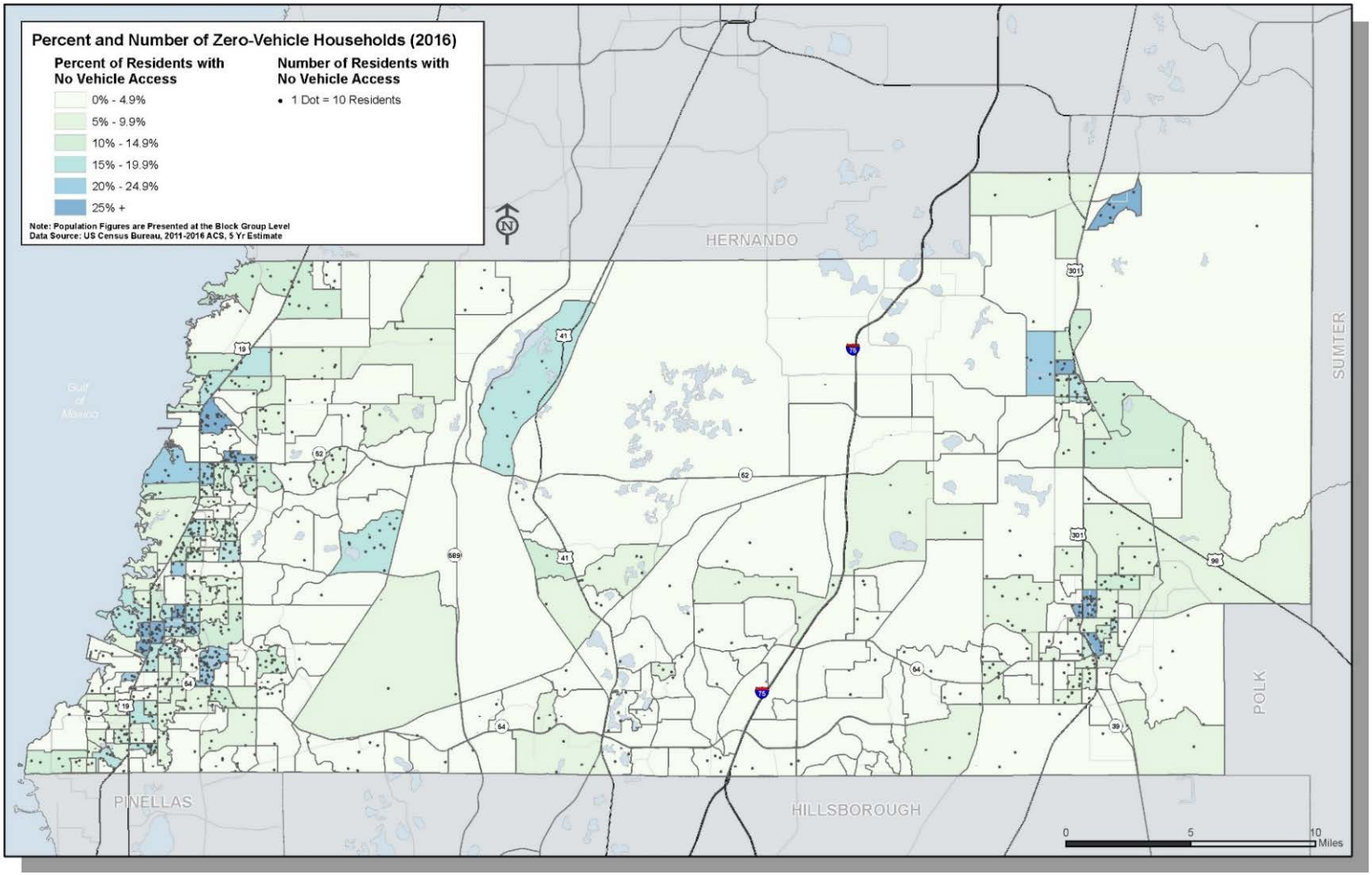

*Source: AECOM*

**Map 3-6: Residents Age 65 or Older**




*Source: AECOM*

**Map 3-7: Households with Zero Vehicles**



## Environmental Justice and Equity Area Identification Methodology

A geographic analysis was completed to identify block groups with higher-than-average concentrations of each factor of interest to produce Equity Assessment Areas, shown in Map 3-8. To identify these areas, a GIS-based Transportation Planning Equity Tool was developed based on a Transit Orientation Index (TOI) methodology to identify areas that might support transit use based on the prevalence of specific demographic characteristics. This tool was adapted to objectively identify concentrations of Title VI and EJ areas and other protected groups and to develop a composite of indicators.

Using the TOI methodology as a framework, the following five steps were taken to rank block groups for the composite score:

1. Calculate the countywide average threshold for each indicator.*
2. Assign indicator categories to block groups based on the standard deviation of the indicator's dataset.*
3. Calculate the comparative score for each indicator.
4. Calculate the equity composite score.
5. Assign the equity composite score category to each block group.

**Individual Indicator maps use only Steps 1 and 2.*

These steps are explained in more detail as follows:

- **Step 1: Calculate countywide average for each indicator** – A benefit of this methodology is that it does not rely on establishing an arbitrary threshold (e.g., anything ≥50% or over the countywide average for an indicator is flagged as an area of concern). Rather, the methodology relies on calculating standard deviations so that resulting scores are based on the extent to which an indicator in any given block group conforms or diverges with the countywide norms. Since the data determine the breakpoints, potential subjectivity is eliminated.
- **Step 2: Assign indicator categories to block groups based on standard deviation** – In this step, one of the following four categories is assigned to each block group for each indicator based on the standard deviation (distance from countywide average) of the indicator's dataset.
    - *Category 4 (Very High)* – equal to or greater than +2 standard deviation from countywide average.
    - *Category 3 (High)* – equal to or greater than +1 standard deviation but less than +2 standard deviation from countywide average.
    - *Category 2 (Medium)* – equal to or greater than countywide average but less than +1 standard deviation from countywide average.
    - *Category 1 (Low)* – less than countywide average. Step 3: Calculate the comparative score for each indicator.

  This step assigns discrete numerical scores to each of the four indicator categories assigned to the dataset. These scores serve two purposes – to provide a uniform ranking for all block groups and to numerically differentiate among the four categories for each indicator.

- **Step 4: Calculate the equity composite score** – To calculate the composite equity score for each block group, the scores for each core indicator are summed.
- **Step 5: Assign equity composite score category to each block group** – Using the same methodology as in Step 2, an equity composite score category is assigned to each block group based on the standard deviation from the average composite score for all block groups in the dataset. The final composite equity score categories are assigned as follows:
    - *Category 4 (Very High)* – equal to or greater than +2 standard deviation from average composite score for all block groups
    - *Category 3 (High)* – equal to or greater than +1 standard deviation but less than +2 standard deviation from average composite score for all block groups
    - *Category 2 (Medium)* – equal to or greater than countywide average but less than +1 standard deviation from average composite score for all block groups
    - *Category 1 (Low)* – less than average composite score for all block groups

  For maps of the individual indicators, the process ends at Step 2. Table 3-5 shows the county averages, standard deviation, and category breakpoints for each indicator.

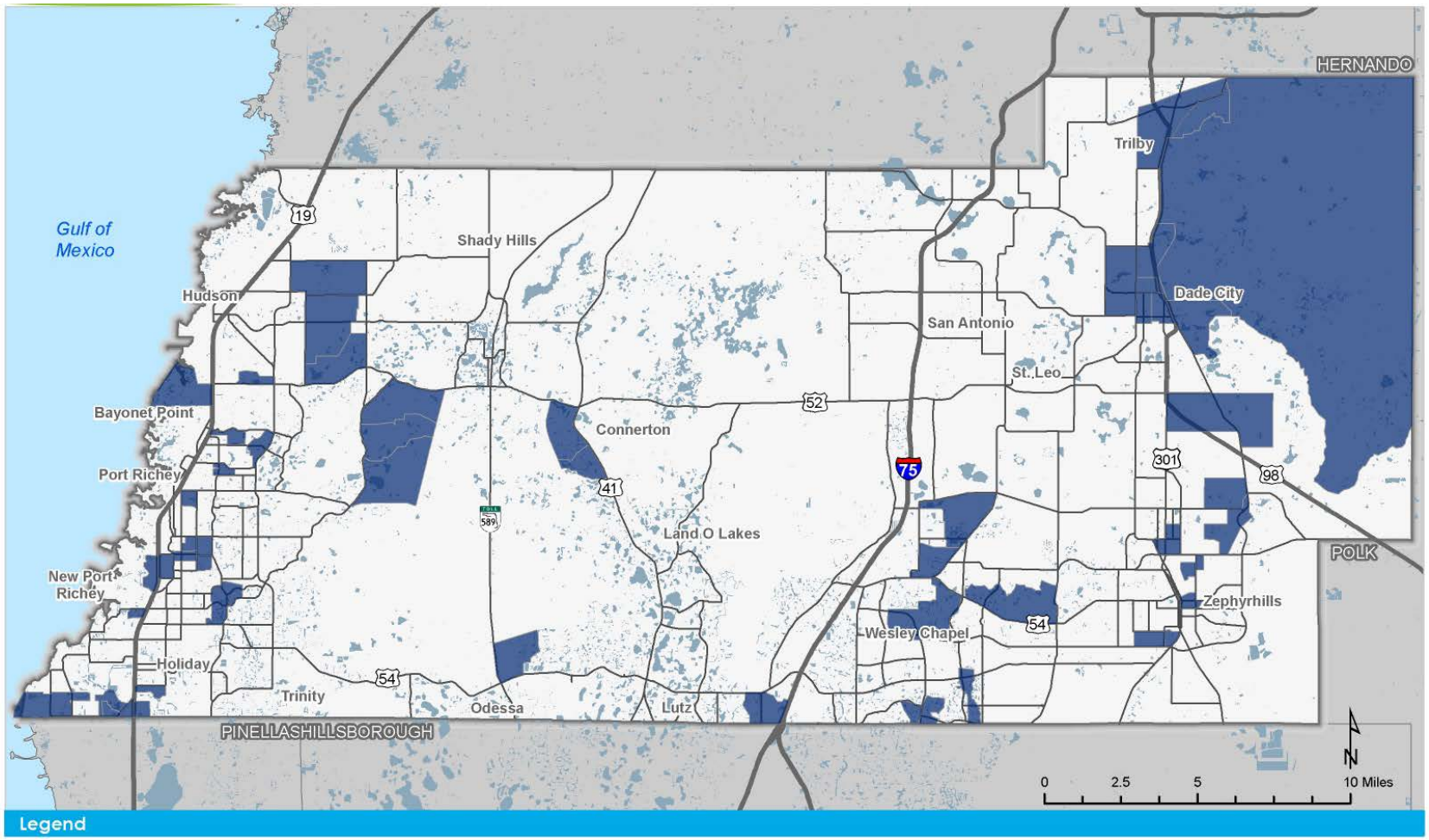
**Table 3-5: Pasco County Equity Assessment Areas Averages and Score Thresholds**

| Factor | Pasco Average | Standard Deviation | High (Category 3) | Very High (Category 4) |
|---|---|---|---|---|
| Below Poverty | 14.01% | 9.45% | 23.46% | 32.90% |
| Non-white/non-Hispanic | 8.09% | 7.47% | 15.56% | 23.03% |
| Hispanic | 12.25% | 9.40% | 21.65% | 31.05% |
| English proficiency – less well | 4.08% | 3.83% | 7.91% | 11.74% |
| Age 65 or older | 25.20% | 16.40% | 41.60% | 58.00% |
| Zero vehicle households | 6.26% | 6.71% | 12.97% | 19.68% |

- **Step 6: Verify/finalize analysis findings at public workshops** – Participants in the public involvement process reviewed and suggested adjustments to the findings from this Equity Assessment Analysis. Based on further review of this input, block groups near Zephyrhills and Trilby were added to the Equity Assessment Areas. Map 3-8 shows the finalized areas reflects this feedback.

The results of this analysis will be used in several ways. As noted in the FHWA guidance, these areas should be a focus for participation and inclusion in the planning process. These areas also must be assessed for potential impact of needs and cost feasible projects. The 2045 LRTP includes specific participation activities to address facilitate inclusion in the process and will also include a project screening process to analyze for possible impacts.

**Map 3-8: Equity Assessment Areas**




Source: ACS 5 YR 2012 - 2016

# Public Involvement

In addition to geographic and quantitative analysis, public involvement was a significant part of the socio-cultural and EJ analysis to review Equity Areas and identify potential impacts of transportation improvements, transportation needs, and improvements to involvement strategies among the populations of focus. This was done in compliance with the Title VI of the Civil Rights Act of 1964, reinforced by the Executive Order on Environmental Justice (#12898), which prohibits discrimination based on race, color, and national origin and requires the inclusion of minority and low-income populations in the planning process. The feedback and opinions received were used to develop and prioritize future transportation improvement projects so they would not have a negative impact on traditionally under-served population segments.

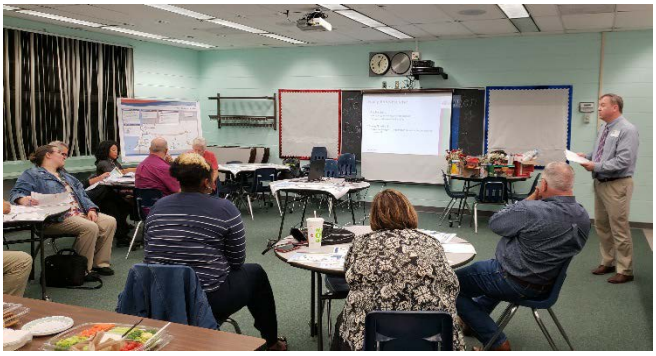
## Service Providers and Agencies Input

Two workshops were facilitated to gather input from service providers and agencies. As these entities directly serve and interact with the transportation disadvantaged and EJ populations in Pasco County, they can provide representative insights into what geographic areas and modes of transportation can increase mobility for the focus populations. The workshops were held as follows:

- November 13, 2018, 5:30–7:30 pm, Lacoochee Elementary School Multipurpose Room
- November 15, 2018, 5:30–7:30 pm, Fasano Center

The Pasco County MPO and Pasco County Public Transportation (PCPT) provided a recently-updated list of social service organizations and agencies with whom they maintain contact. Invitations were sent to the contacts on this list. Workshop attendees included the following:

- Valerie Anderson – Housing Authority
- Mark Barry – The ARC Nature Coast
- Sherri Dunham – DSBPC
- Judy Geiger – Citizen
- Ronald Oakley – County Commissioner
- MisIvy Reittie– Housing Authority
- Richard Riley – Citizen
- Kate Saksefski – VR Dade City
- Brooke Taylor – Medfleet
- Tania Gorman – Pasco MPO
- Manny Lajmiri – Pasco MPO
- Wally Blain – Tindale Oliver
- Rob Cursey – Tindale Oliver
- Sarah Goolsby – Tindale Oliver



At the beginning of each workshop, participants were provided with an overview of the 2045 LRTP process and meeting objectives. A series of maps was presented to show the areas with underserved and under-represented populations for the whole county and the potential transportation improvements planned. The maps available for review included the following:

- Map 1: Equity Assessment Areas
- Map 2: 2040 LRTP Needs Plan
- Map 3: 2019 TDP Transit Service Improvements

Following the overview discussion, a survey was provided to each participant with six questions and four map exercises that covered the following topics:

- Equity Areas review
- Current transportation options
- Role of transit in the community
- Necessary transit/transportation improvement projects

### *Survey Results Summary*

During the workshops, a series of questions was asked of the participants, as listed below.

*Question 1: What are typical transportation options for the group(s) you represent?*

The most common responses included **friend/family/private transportation options, bus, and walking and biking.** Additional comments and noted considerations included:

- Limited buses and public transportation options
- Bikers can get wet and distances can be too far for walking
- Transportation vehicles may be old and unreliable
- Walking in adjacent neighborhoods
- Account for mobile homes and colleges
- Think about economic development and technical skill development
- Account for veterans, transitioning individuals, and Section 8 voucher users
- Few people approved for door-to-door transportation services

*Question 2: What do you feel is the current role of transit for your communities?*

- **Connect people and places**
- **Provide affordable mode of transportation/equity**
- Better environment/quality of life
- Spur economic development
- Other

The most common responses are in bold above, and several comments touched on the affordability of transit as an issue (although one comment noted it was improving). Additional comments included:

- Provide everyday service
- None of the above
- Basic/essential needs
- Lack of bus reliability and doesn't run on weekends; schedule prevents students playing sports

*Question 3: Does that change in the future? If yes, how?*

- More reliable and less costly
- Focus on supporting people
- By scope, efficiency, volume, and quality
- With more availability, buses would be the main source of transportation
- If Lacoochee Elementary closes, more families may rely more on bus to get to school

*Question 4: What improvements are needed in the existing bus system for your communities?*

- **More frequent bus service**
- **Sunday service**
- **More early/later service**
- New technology - bus tracking app, mobile fare
- More local coverage areas added – where?
- Regional/express services added – where?
- **Improving walk/bike access to bus tops on existing routes**
- Other

Additional comments, including increased service areas, were:

- Holiday
- SR-52 – add regional/express service
- St Leo
- Shady Hills/along US-41
- Hernando/Pasco County
- Dade City
- Pasco to Hillsborough
- Pasco to Pinellas

*Question 5: How would you prioritize the following improvements to the bus system?*

- Increasing frequency of service on existing routes
- **Increasing the daily span of service on existing routes (indicate whether it should start earlier in the morning, end later in the evening, or both)**
- Providing new service to areas without service
- Improving walk/bike access to bus stops on existing routes

Many respondents indicated that both earlier and later service was required.

*Question 6: How would you rank the following improvements to the over-all transportation system?*

- Improve transit service (service, frequency, etc.)
- Improving walk/bike access to transit stops
- **Intersection safety and operations**
- Add roadway capacity/new roads
- Maintain existing roadways

### *Map Exercise and Project Impact Response Summary*

Equity Areas noted/places highlighted on Equity Area map:

- Shady Hills
- St. Leo
- Area west of Zephyrhills
- Holiday
- Port Richey
- New Port Richey
- Trilby Rd and 575 back to Peachtree Drive

Comments/areas highlighted on facilities map:

- Expand 54 and 52
- Ridge Rd
- Facilities in Lutz, Wesley Chapel, and Odessa, numbered 1,2, and 3 on map

Areas highlighted on transit map:

- Shady Hills
- Connerton
- San Antonio/St. Leo

Areas highlighted on improvements map, improvements needed or improvements that will have a positive impact on communities of focus:

- Little Rd, Little Rd and SR-54
- Intersection of US-41 and SR-52
- Intersection of CR-1 and Tower
- Bellamy Brothers – route from US-41 to Bellamy to SR-52
- US-302 N of Dade City needs more law enforcement
- Shady Hills
- Blanton
- SR-54 corridor and parallel routes
- Highlights around proposed interchanges along SR-54 and I-75
- Highlights around proposed study of connection between CR-578 and CR-41

General improvements noted as needed or having positive impact on communities of focus:

- Transit routes most frequently noted
- Others include:
    - Sidewalks, walk/bike access
    - Roads
    - Bus stops
    - Connections to destinations and services

    - Timing, span, and frequency of buses
    - Improvements noted as having a neutral impact on communities of focus:
- Blanton, CR-41 to Lake Iola, will fix gap in quality of road to Hernando County
- Collier Pkwy Extension (also noted as not needed)
- CR-575 from Trilby to Blanton Rd

Improvements noted as having a negative impact on communities of focus:

- US-98 to Mickler Rd Bypass to SR-575; additional comments included US-98 needs improvement, Mickler Rd Bypass not needed, SR-575 is well-maintained road

### *General Comments*

The following summarizes general comments from workshop attendees:

- Participants included representatives from under-represented and under-served populations in the area, including low-income, under-represented/under-served racial and ethnic groups, persons with a disability, and older adults.
- Suggested adding Trilby to the Equity Areas due to the high proportion of low-income households.
- Concern was expressed for Lacoochee Elementary closing; many low-income families in the area do not have transportation easily accessible – having to send kids to a school farther away may cause some issues.
- St. Leo University students do not have many transportation options; until transit access can be improved, they need some kind of car-sharing service or Uber/Lyft access.
- Bus access in most areas of the county is not the issue. Frequency/car culture are the main issues with transit; many people rely on other means of transportation
- Poverty of 14% countywide seemed a little low.
- Concerned that Equity Areas map does not take the snowbird population into consideration.
- Do not believe that transit will encourage economic development because it is currently happening without it.
- Limited options for TD population county-wide; response times for these services are slow and services are not well known.
- Bus service on holidays needed, like most larger agencies. People still need to get around on holidays, especially if they have to work.
- May need to look into some block groups in Zephyrhills and St. Leo as possible Equity Areas.
- Express service for SR-52 and Little Rd transit mentioned.

### *Overall Summary*

Common themes from the responses include the idea that transit is an important method of transportation for communities of focus; improving transit service is important, particularly frequency of

service, daily hours of operation of service, and provision of service on weekends and holidays. Maintaining affordability of the service is also important. Walking and biking is also a consideration, as it is currently a common mode of transportation and a means of accessing transit; on Question 6 of the survey, however, this consideration was a lower priority when compared to service frequency, intersection safety, and roadway capacity and maintenance considerations. Feedback on Equity Areas and preliminary needs/project review varied in terms of geographic locations. Equity Area input was further reviewed and integrated into the broader Equity Assessment Areas identification process and project needs are further reviewed as part of the follow-up public involvement workshops detailed in the following section.

## Analysis of LRTP projects

The areas designated in Pasco County as EJ Areas were identified, and an analysis of the projects included in the LRTP was conducted to ensure that the cost feasible projects do not disproportionately or adversely impact human health or the environment in these identified areas. Table 3-6 presents an overview of the future anticipated funding for roadway and transit projects in areas designated as meeting the criteria for environmental justice as compared with the remainder of the county.

**Table 3-6: Future Anticipated Funding for Roadway and Transit Projects in EJ and Non-EJ Areas**

| Transportation Measure | EJ Areas | Non-EJ Areas | Total |
|---|---|---|---|
| 2045 Population | 112,983 | 672,203 | 785,186 |
| Percent of population | 14.4% | 85.6% | 100% |
| Committed Highways (2019–2024) | $121,537,010 | $195,917,592 | $317,454,602 |
| Per capita | $1,076 | $291 | $404 |
| Mileage | 9 | 16 | 25 |
| Cost Feasible Highways (2025–2045) | $1,464,671,663 | $3,441,678,118 | $4,906,349,781 |
| Per capita | $12,964 | $5,120 | $6,249 |
| Mileage | 74 | 167 | 241 |
| Cost Feasible Transit Plan (2025–2045) | $754,653,331 | $62,756,048 | $817,409,379 |
| Per capita | $6,679 | $5,638 | $1,041 |
| Total route mileage | 809 | 45 | 854 |

This analysis showed that nearly 86 percent of the county's population is projected to live in areas not designated as meeting EJ criteria. Funding for roadway projects was broken down to reflect the committed funding through the MPO's TIP and the remainder of the planned funding through 2045. Analysis of both time periods indicates that 60–70 percent of the total funding will be in areas not designated as meeting EJ criteria. Conversely, the breakdown based on a spending per person suggests a greater investment per person is being made in the EJ areas. Consistent with the community feedback and need for improved transit services, spending for transit projects is focused on continuing and expanding service to EJ areas, roughly 50 percent in both the Core and Coverage scenarios.

This would suggest that as future projects are advanced to construction, continued review of community impacts should be closely watched and measured to ensure that minority and low-income communities are not disproportionately impacted by transportation projects. Spending alone is not an indicator of negative impacts on a community. Providing both roadway and transit investment is an indicator that the mobility and accessibility needs of the community are being considered by the MPO in developing the 2045 LRTP.

MOBILITY 2045

Pasco County MPO
Transportation Plan

# Chapter 4
# Guiding the Plan

This chapter describes some of the elements that guided the development of MOBILITY 2045. Specifically described is the regional scenario planning exercise that used the CommunityViz model to forecast land use for the LRTP horizon year of 2045. This model is built on land use data and policy assumptions of local governments; therefore, the consistency of MOBILITY 2045 with local plans for the regional scenario planning exercise and the plan as a whole are included.

# Regional Scenario Planning

The Pasco County CommunityViz Model (PCCM) is the product of a region-wide, three-county initiative to develop more consistent and replicable methods for scenario planning and allocating future year socioeconomic data to traffic analysis zones used in the Tampa Bay Regional Planning Model (TBRPM) version 8.0. It normalized the data collection process, model architecture, and data output formats used by member jurisdictions in the Pasco County MPO and provided more efficient processes and tools—recognizing the inherent relationships between land use, transportation, and urban form—for studying the components of a more efficient, more sustainable regional transportation system.

## Study Area

The study area for the PCCM represents the entire county, including unincorporated areas and the six cities and towns within it—Dade City, New Port Richey, Port Richey, San Antonio, Zephyrhills, and St. Leo.

## Project Partners

The PCCM was created with the help and guidance of State, regional, and local government organizations working together as a technical group, including, FDOT, the Pasco County MPO, Forward Pinellas, and the Hillsborough MPO.

## Base Year Conditions

The study area for the PCCM is part of the larger Tampa Bay Region. Pasco County has seen significant growth since 1970, growing from a small rural county of 78,000 to a large suburban county with a population rapidly approaching 500,000 people by 2015. BEBR estimated the 2015 population in Pasco County as 487,588, and employment was estimated at 157,500. Coordinated regionally with FDOT, employment estimates were based on two primary sources—typical wage and salary employment for private and government employees was obtained from the Florida Department of Economic Opportunity Data Center and supplemented with national Bureau of Economic Analysis (BEA) data for military employment and sole proprietor employment to cover small, owner-operated businesses.

## Anticipated Growth Trends

Demographically, the study area for the PCCM grew significantly over the last decade, influenced by strong residential growth. Pasco County added more residents in the 10-year span between 2000 and 2010 than at any other time, with nearly 120,000 people moving to the county. Growth slowed for 2010–2015, with around 22,000 more people in the county when the nation and region experienced economic decline. Forecasters anticipate that 795,600 people will call Pasco County home by 2045, an

increase of 64 percent from 2015. Employment is expected to increase to 266,592 million in 2045, an increase of 69 percent from 2015.

## Scenario Planning Overview

Scenario planning represents the next generation of analytical processes created to evaluate the influence of different development types, locations, patterns, and intensities on the efficiency of a proposed transportation system. Visualization of the interaction between land use, urban form, and transportation decisions, as well as the causational factors that explain the push-pull relationships between them, provides community leaders with the information needed to evaluate the consequences of potential actions.

Building on this momentum, FHWA, the U.S. Environmental Protection Agency, and other Federal agencies are actively promoting the use of scenario planning by state departments of transportation, MPOs, and local governments to better integrate transportation and land use decisions for preparing a Metropolitan Transportation Plan.

Evaluating the relationships between land use, urban form, and regional travel behavior in a scenario planning analysis produces several benefits. When considered together, decisions and investments regarding all three elements can have a significant impact on Pasco County:

- Impacts to sensitive land uses may be minimized when facilities identified for transportation investments are located after considering appropriate land use patterns and development intensities for the area.
- Prime locations for development may be stimulated if transportation investments consider available capacity or appropriate mobility options.
- Complementary activities may be placed next to existing or planned transportation infrastructure, making the most of land use opportunities and transportation investments.
- The quantity and location of travel demand may be influenced by land use decisions, making the possibility of real choices for various modes of travel both accessible and attractive.
- New development locations, types, patterns, and intensities in an area could significantly improve transportation system performance without spending significant transportation dollars, stretching existing system capacity with demand-side solutions before making expensive investments.
- A study of land use, urban form, and travel behavior in a single theater brings together all the decision-makers for instilling real change—local governments, state departments of transportation, regional planning agencies, the development community, special interest groups, etc.

Ultimately, the scenarios are fictitious stories about the future. They are not forecasts of past trends based on existing land patterns, emerging trends, or predictions; rather, they reflect potential futures

that are possible based on the community's visions and desires to change course for the future. The essential requirement of any growth scenario is that it be plausible, within the realm of what exists or what could be.

## Relationship to TBRPM

One tool available for studying long-term impacts to the regional transportation system is the Tampa Bay Regional Planning Model (TBRPM), a program that forecasts future year demand on existing and planned transportation facilities using anticipated land use, demographic information, and travel patterns unique to the region. Planning horizon years in the model consider conditions 10, 20, and 30 years beyond base year conditions. Approximating future year conditions on the transportation system helps transportation officials assess the implications of growth, compares alternative transportation solutions, and provides a framework for measuring the impact of policy decisions.

The foundation for the TBRPM is socioeconomic data, including population, housing, student and employment estimates organized into distinct geographic subareas referred to as traffic analysis zones (TAZs). Collectively, this information represents the assumed growth and development potential for the Tampa Bay Region. Demand on the transportation system (trip generation) is calculated directly from the model's socioeconomic data.

Before the PCCM, updating socioeconomic data for the Pasco County portion of the TBRPM study area was time-intensive, and the top-down/bottom-up manual process created significant challenges for allocating future year growth in the county. Specifically, it 1) created a miss-match between demand and supply statistics for growth allocation in some growth categories and in some parts of the county, 2) marginalized some of the unique conditions for cities and towns in the county, 3) used a non-standardized methodology for translating local plans and ordinances into buildout potential for the county, and 4) used a non-standardized methodology for determining growth hot spots (areas most likely to develop by horizon period) throughout the county. The manual process also limited the ability to evaluate the effects of alternative development patterns (scenarios) on the efficiency of the regional transportation system.

Socioeconomic data allocated in the PCCM—TAZ-level reporting—streamlines the workflow for running the TBRPM. Output data normalized for the Pasco County portion of the TBRPM study area and formatted for direct input into the travel demand model software saves time and potential errors translating data from several sources.

## Alternative Growth Scenarios

Four alternative growth scenarios were prepared for building and testing the PCCM—Trend Development, All-In-Transit, Beltway and Boulevard, and Preferred Growth. Each scenario was different enough to pose real choices for how Pasco County might develop under one or more planning initiatives. Each scenario used identical projections for population and employment between 2015 and 2045. The number and mix of dwelling units in each scenario were different to account for competing development patterns and intensities or housing preferences represented in the scenarios.

An analysis of transportation impacts (and their trade-offs) for three of the scenarios — Trend Development, All-In-Transit, and Beltway and Boulevard—was completed for the It's Time Tampa Bay Regional Scenario Planning Initiative. The fourth alternative—Preferred Growth—will be contemplated in MOBILITY 2045. More information on the It's Time Tampa Bay Regional Scenario Planning Initiative is available on the project website at www.itstimetampabay.org.

### Relationship to MOBILITY 2045

The Preferred Growth scenario for the PCCM meets Federal rules and guidelines for developing the Metropolitan Transportation Plan required for all MPOs in the Tampa Bay Region. Specifically, it considers land use and development controls reflected in local government plans and ordinances for preparing the document. Data and tools for the Preferred Growth scenario will inform the MOBILITY 2045 planning processes and will be useful for identifying, prioritizing, and scheduling specific transportation projects included in the MOBILITY 2045 document.

### Moving Forward

The PCCM takes advantage of tools and processes available in the software today to quickly allocate future year socioeconomic data over multiple horizon periods. Continued updates, both in terms of input data and model scripts, should be made to keep it relevant and responsive to needs in the county. It is assumed Pasco County staff will run and adapt the model in future years using the information presented herein and their increasing command of the software.

## Consistency with Local & Regional Plans

Many plans developed by partners of the MPO are critically important to the region and MOBILITY 2045. The MPO made a concerted effort to ensure consistency to the maximum extent possible with relevant plans and manuals in the region. The following section provides a brief summary of the plans and manuals reviewed that helped guide the update of MOBILITY 2045.

### Consistency with Regional and County Plans

Key to the development of MOBILITY 2045 was identifying and ensuring consistency with various plans and development goals in Pasco County. The following documents were reviewed to identify the elements for consistency:

- Comprehensive Plans of Pasco County, incorporated cities of Dade City, New Port Richey, Port Richey, and Zephyrhills, and Town of St. Leo
- Pasco County Transportation Corridor Preservation Plan
- TBARTA 2015 Regional Transportation Master Plan
- PCPT *Transit Infrastructure Guidelines Manual*

- Zephyrhills Industrial Corridor Master Plan
- The Harbors–West Market Area Redevelopment/Infill Plan
- Northeast Pasco Rural Protection Overlay District

### *City and County Comprehensive Plans*

Comprehensive Plans are policy documents that guide the development of land, economic growth, resource protection, and the provision of public services and facilities over time. The Comprehensive Plan serves as a vision and roadmap for the community's future. The Transportation Elements in the Pasco County, New Port Richey, City of Zephyrhills, Dade City, and St Leo Comprehensive Plan emphasize enhancing transportation networks to provide access for economic activities, improving roadway safety and evacuation routes, establishing and enhancing multimodal transportation network and options, minimizing traffic impacts of new development, and maintaining level of service standards for the transportation network.

### *TBARTA 2015 Regional Transportation Master Plan*

This Master Plan serves as regional LRTP with the vision to continue to examine high-capacity corridors that deserve attention to improve mobility within region. The plan acknowledges that population growth in Tampa Bay Region expected to increase 43% by 2040, and commute times are expected to double by 2040. As the majority of cross-country travel occurs between Hillsborough, Pasco, and Pinellas counties, the plan identifies regional and future priority projects to target in coming year(s).

### *PCPT Transit Infrastructure Guidelines Manual*

This design and guideline manual was developed by PCPT for bus stops and other transit-supportive infrastructure elements through its service area. Goals of the manual include:

- Improve the level and quality of transit supportive infrastructure through Pasco County
- Improve operation of and access to multimodal transportation services.
- Promote safety and security on transit vehicles and at stops.
- Increase the comfort and satisfaction of existing system patrons.
- Improve the overall attractiveness of transit as a commute alternative.
- Promote local government and private sector partnerships; and
- Coordinate land use with the provision of transportation services.

### *The Harbors–West Market Area Redevelopment/Infill Plan*

This plan evaluated the redevelopment and infill opportunities and defined potential land use, infrastructure, and economic development strategies, and also created an implementation mechanism for the area. The intent is to promote coastal opportunities, transforming US-19 into a livable roadway, and creating an infill community structure. The following are the overall objectives of the plan:

- Celebrate and enhance historic assets and neighborhood features.
- Encourage compact, walkable, mixed-use development.
- Encourage energy efficiency.
- Enhance water features and eco-tourism.

- Improve multimodal connectivity.
- Provide post-disaster planning and management.
- Provide employment opportunities.
- Revitalize neighborhoods and provide quality affordable housing choices.

The Harbors–West Market Redevelopment/Infill Plan reflects overall visions and strategies for five major areas:

- Economic Development
- Community Infrastructure and Planning
- Environment, Open Space, and Tourism
- Transportation
- Urban Design

The Transportation Vision for the plan includes the following statements:

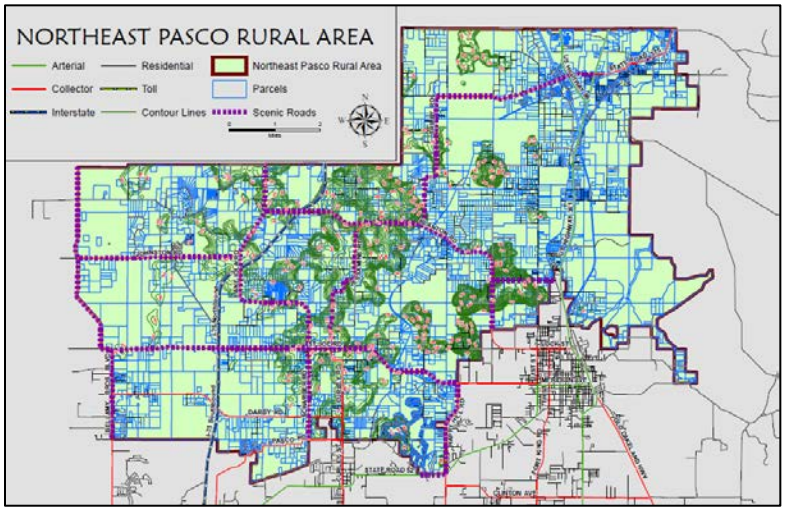
- Provide a safe transportation network for all users.
- Increase pedestrian and vehicular connectivity.
- Visually enhance major corridors.
- Enhance public transit service.

The Focus Areas the help implement and support the transportation vision include Mobility, Pedestrian Safety, and Transit.

### *Northeast Pasco Rural Protection Overlay District*

This District was adopted in 2016 to assist in preserving and protecting NE Pasco County's existing rural and agricultural character for existing residents while providing for the area's limited orderly and appropriate growth to allow future residents the opportunity to enjoy its rural lifestyle. The District was adopted to implement goals identified in Pasco County's Comprehensive Plan (FLU: 2 and FLU: 2.1.1) and provide codified guidelines to development in the District.

**Figure 4-1: Northeast Pasco Rural Area**



### *Pasco County Transportation Corridor Preservation Plan*

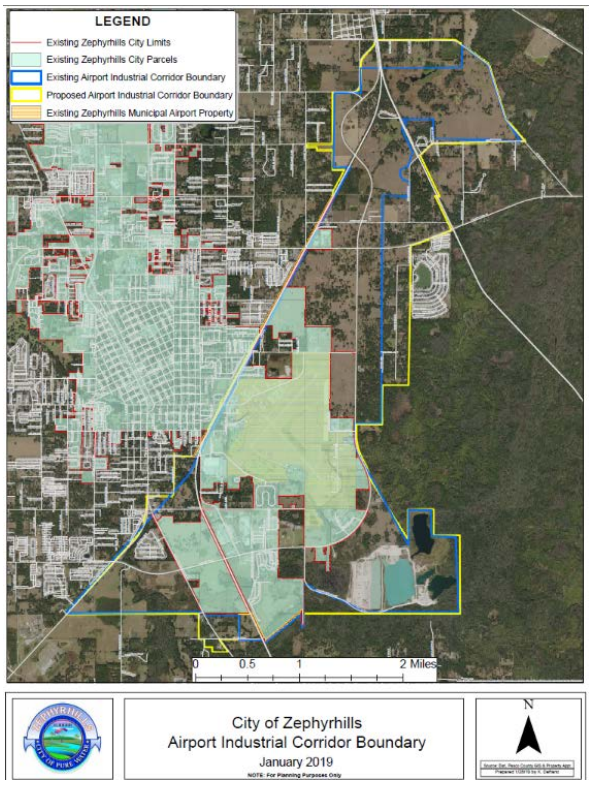
This plan was adopted as a part of the 2025 Pasco County Comprehensive plan to identify corridors and intersections that need additional right-of-way to facilitate projected traffic volumes.

### *Zephyrhills Industrial Corridor Master Plan*

This Master Plan is to expand industrial businesses and create high-quality jobs in southeast Pasco County. It aims to maintain support of existing industries while finding new opportunities to expand and diversify the community's economic resiliency and ability to retain and attract a skilled workforce. The plan is identified in the City of Zephyrhills Five-Year Strategic Action Plan (2019–2023) with the following objectives:

- Support a diversified and resilient local economy and position Zephyrhills as a regional industrial hub.
- Provide a desirable and adaptable workforce that meets the needs of today's and tomorrow's industries and offer needed workforce training and services through effective businesses-education-government collaboration.
- Coordinate land use, infrastructure, and economic development planning to inform the City of Zephyrhills Comprehensive Plan update, including protection of environmentally sensitive areas.
- Reduce stress on transportation facilities and the commuting costs of local households through a healthier jobs-to-housing balance in southeast Pasco County.

**Figure 4-2: City of Zephyrhills Airport Industrial Corridor Boundary**



Additional technical documentation supporting Chapter 4 can be found in the associates standalone Appendix.

- Appendix 4-1 CommunityViz Model Description
- Appendix 4-2 Pasco County CommunityViz Model MetroQuest Performance Measures
- Appendix 4-3 Planning Expectations and Certifications
- Appendix 4-4 Resilient Tampa Bay: Transportation Pilot Program Project
- Appendix 4-5 LRTP Environmental Consultation Workshop

MOBILITY 2045

Pasco County MPO
Transportation Plan

# Chapter 5
# Goals, Objectives, and Performance Measures

# Introduction

The MOBILITY 2045 LRTP was developed to be consistent with the requirements of the FAST Act, as signed into law on December 4, 2015. The FAST Act is the first Federal law passed in more than a decade that provides long-term funding for surface transportation planning and investment. As with previous transportation laws, the FAST Act includes a series of metropolitan planning factors that ensure that the work of the MPO is based on a continuous, cooperative, and comprehensive process.

With passage of the FAST Act, two additional planning factors were added. Following are the 10 planning factors that are to be applied to the metropolitan planning process for all MPOs, including the Pasco MPO:

1) Economic Vitality: Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2) Safety: Increase the safety of the transportation system for motorized and non-motorized users.
3) Security: Increase the security of the transportation system for motorized and non-motorized users.
4) Accessibility: Increase accessibility and mobility of people and freight.
5) Environment: Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
6) Connectivity: Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7) Efficient Management: Promote efficient system management and operation.
8) Preservation: Emphasize the preservation of the existing transportation system.
9) Resiliency: Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10) Enhance Travel: Enhance travel and tourism.

In addition to addressing the Federal planning factors, consistency with the FDOT's 2015 Florida Transportation Plan (FTP) Policy Element and policies included in the local government comprehensive plan has been included in review and development of the LRTP Goals and Objectives

Following is a review of the Goals, Objectives, and Performance Measures for the MOBILITY 2045 LRTP and their consistency with the FAST Act, FTP Policy Element, and local plans.

# Goals and Objectives

The primary step in developing the MOBILITY 2045 LRTP Goals was to review existing Goals developed for the 2040 LRTP to determine their relevancy to the planning requirements under the FAST Act and consistency with the FTP Policy Element and countywide comprehensive plans. Since the Goals set the foundation for the entire planning effort, it is important that they reflect the direction of the

community. The Goals and Objectives from the 2040 LRTP were determined to be relevant for 2045 with minor amendments. The remainder of this section provides an overview of each goal and its consistency with local, state, and federal plans.

## Goal 1 – Support Economic Development

Goal 1 and its six supporting objectives are shown in Table 5-1. A new objective was included for this goal to address the importance of tourism for Pasco County.

**Table 5-1: Goal 1 – Support Economic Development**

| | **Goal 1: Support Economic Development**<br>***Provide multimodal facilities and services that support economic development.*** |
|---|---|
| **Objective 1** | Improve goods movement access and connections to port, rail, and airport facilities. |
| **Objective 2** | Improve access and connections to major activity centers. |
| **Objective 3** | Preserve corridors for future planned improvements. |
| **Objective 4** | Develop transportation solutions through public-private partnerships. |
| **Objective 5** | Maintain consistency with the Pasco County Economic Development Strategic Plan and other pertinent plans. |
| **Objective 6** | Increase transportation/enhancement projects benefitting tourism. |

These objectives were determined to be consistent with the following local plans:

- The 2025 Comprehensive Plan of Pasco County seeks to provide public infrastructure necessary to support economic development. The plan establishes an Employment Center land use to attract target businesses, minimize urban sprawl and to support alternative transportation strategies. The County is preparing development of the following commercial corridors:
  - US-19 from Pinellas County line to Hernando County line
  - US-301 from north Zephyrhills City limits to Hernando County

  Through future land use planning, the Pasco County Comprehensive Plan provides for economic development through the prioritization of target businesses, office development, and industrial development at sites having high visibility and close access to the Suncoast Pkwy, I-75, and US-301. The plan calls for provisions to establish and maintain a surface transportation system which services existing aviation facilities.
- The Pasco County Corridor Preservation Plan identifies corridors and intersections needing additional right-of-way to facilitate the traffic volumes that are projected.
- The New Port Richey 2030 Comprehensive Plan designates US-19 as a freight truck route.
- The City of Zephyrhills Comprehensive Plan includes provisions to coordinate through its designated agencies with FDOT and Pasco County to expand and enhance the overall transportation network to provide reasonable access to agricultural, commercial, industrial, and office locations throughout the city and county.

- The TBARTA 2015 Regional Transportation Master Plan identifies several freight projects in its Long Range Regional Freight Needs, including rail, roadway, interchange and intersection improvements.

## Goal 2 – Improve Safety and Security

Goal 2 and its three supporting objectives are shown in Table 5-2. This Goal and its objectives were determined to be relevant for the MOBILITY 2045 LRTP without further amendment.

**Table 5-2: Goal 2 – Improve Safety and Security**

| | |
|---|---|
| | **Goal 2: Improve Safety and Security**<br>***Improve the safety and security of the multimodal transportation network for motorized and non-motorized users.*** |
| **Objective 1** | Reduce fatal and serious crashes for all modes of travel. |
| **Objective 2** | Document and consider impacts to emergency evacuation routes during the prioritization of roadway improvements. |
| **Objective 3** | Monitor and support multimodal transportation security. |

These objectives were determined to be consistent with the following local plans:

- The 2025 Comprehensive Plan of Pasco County includes safety as a criterion than can be used to determine functional classification of roadways. The plan lists three corridors to promote regional travel, enhance hurricane evacuation and emergency response times between Land O'Lakes area and West Pasco County.
- The PCPT *Transit Infrastructure Guidelines Manual* provides design standards and guidelines for bus stops and other transit-supportive infrastructure elements to promote safety and security on transit vehicles and bus stops.
- The New Port Richey 2030 Comprehensive Plan lists the highest crash locations in the city and includes policies improve safety such as lighting, traffic calming, speed limits, and raised crosswalks. The City posts and maintains emergency evacuation routes for the citizens of New Port Richey and adjacent cities, as outlined in the Conservation and Coastal Management Element. The plan recognizes improved security for transit users and pedestrians as a strategy to encourage transit.
- The City of Zephyrhills 2025 Comprehensive Plan includes policies to improve the safety of the multimodal transportation system. It is City policy for the City Police Department to maintain accident frequency data and annually review problem areas and potential solutions.
- The Town of St. Leo coordinates with Pasco County, FDOT, and Tampa Bay Regional Planning Council to ensure that SR-52 continues to meet standards for operating as a hurricane evacuation route. The Town of St. Leo Comprehensive Plan calls for improved safety at the intersection of old SR-52 and Pompanic St through coordination with the FDOT.

## Goal 3 – Provide Local and Regional Connectivity and Transportation Choices

Goal 3 and its three objectives are shown in Table 5-3. This Goal and its objectives were determined to be relevant for the MOBILITY 2045 LRTP without further amendment.

**Table 5-3: Goal 3 – Provide Local and Regional Connectivity and Transportation Choices**

| | |
|---|---|
| | **Goal 3: Provide Local and Regional Connectivity and Transportation Choices** ***Maximize opportunity for local and regional connectivity and modal choice for all Pasco County residents, employees, visitors, and commerce.*** |
| **Objective 1** | Plan for and design multimodal transportation facilities accessible by users of different ages and abilities. |
| **Objective 2** | Improve connectivity between major activity centers in Pasco County and regionally. |
| **Objective 3** | Ensure consistency with the comprehensive plans of local governments within the Pasco County MPO area and applicable regional plans. |

These objectives were determined to be consistent with the following local plans:

- The 2025 Comprehensive Plan of Pasco County establishes the County's goal of a developing a multimodal transportation system and a mobility fee that is a multimodal fee. The County's objective to improve connectivity of sidewalks and bicycle facilities along existing and future transportation corridors is supported by the policy to require sidewalk and bicycle facilities at existing and future bus stops and routes through the development review process, as well as transit-oriented design policies. All town centers are required to provide transit coordination plans.
- The New Port Richey 2030 Comprehensive Plan aspires to transform the city into a walkable, multimodal community by creating a safe, convenient, attractive, efficient, and cost-effective transportation system that emphasizes mass transit, walking and bicycling, and that serves the needs of all segments of the population.
- The City of Zephyrhills 2025 Comprehensive Plan includes provisions for establishing a multimodal transportation system that provides for the needs of pedestrians, bicyclists and, motorized-vehicle users through the Master Thoroughfare Plan and through revisions to the Land Development Code. The Downtown US-301 Circulation Plan sets level of service standards to preserve the function and character of the Downtown, creates parallel one-way pairs from 6th and 7th streets for improved connectivity, and designates a series of intersections to be reconfigured as roundabouts.

## Goal 4 – Create Quality Places

Goal 4 and its eight objectives are shown in Table 5-4. This Goal and its objectives were determined to be relevant for the MOBILITY 2045 LRTP without further amendment.

**Table 5-4: Goal 4– Create Quality Places**

| | **Goal 4: Create Quality Places**<br>***Create quality places by coordinating transportation and land use planning with the County and cities that facilitates healthy, active living and protects the County's natural resources through proactive environmental stewardship.*** |
|---|---|
| **Objective 1** | Coordinate land use and transportation planning decisions to provide a built environment that supports transportation choices. |
| **Objective 2** | Consider transportation investments that meet the intent of the market areas. |
| **Objective 3** | Plan for issues related to sea level rise, energy conservation, air quality, and environmental mitigation and impacts. |
| **Objective 4** | Support community social values by developing facilities that are user friendly, multimodal, and encourage healthy and active lifestyles. |
| **Objective 5** | Consider the designation of scenic corridors and parkways that enhance the overall social and aesthetic values of the community. |
| **Objective 6** | Consider impacts to roadways providing access to major activity centers. |
| **Objective 7** | Maintain and preserve existing transportation facilities. |
| **Objective 8** | Provide for the needs of the transportation disadvantaged (TD) population and improve the coordination of TD services with other modes of transportation. |

These objectives were determined to be consistent with the following local plans:

- The 2025 Comprehensive Plan of Pasco County establishes five market planning areas to promote quality of life and redevelopment with compact mixed uses West Market Area, South Market Area Establishment, Central Market Area Establishment, East Market Area Establishment, and North Market Area Establishment. The West and South Market Area Establishments consider transit-oriented development as a development strategy. The plan contains provisions to provide transportation-disadvantaged services.
- The Dade City Comprehensive Plan uses redevelopment and promoted mixed use development in the Downtown District as a means of maintaining the city's small town character and promoting efficient land use and transportation patterns.
- The City of New Port Richey adopted a Livable City Element for their Comprehensive Plan in 2016 that includes city, neighborhood, street, and site level design to enhance the health and integration of the community while reducing automobile dependence.
- Pasco County, the City of Zephyrhills, and the City of New Port Richey adopted a roadway concurrency policy with level of service standards for various roadways to minimize the traffic impacts of new developments.
- The Town of St. Leo Comprehensive Plan includes transportation provisions to provide a safe and orderly traffic circulation system that will preserve the present rural residential and institutional character of St. Leo. The Town of St. Leo coordinates with partner agencies to

emphasize the need to locate new major thoroughfares around the St. Leo municipal limits rather than through the Town. The plan includes a Recreation Goal to expand park/recreation opportunities, and the Town Commission has been exploring the potential for multi-use paths in St. Leo, particularly considering the future, proposed SR-52 relocation to the south of the Town boundary. The new SR-52 includes a multi-use path to which St. Leo's paths would connect. Furthermore, St. Leo's paths would likely extend eastward along SR-52 to Happy Hills Rd and southward along Happy Hills Rd with the development of the adjacent property. In additional to the inclusion of a multiuse path, the Town intends to keep SR-52 as a roadway with one-lane eastbound and one-lane westbound with a center turn lane to minimize through-traffic adjacent to St. Leo's institutional and residential areas within the town boundary.

## Goal 5 – Provide a Reliable, Resilient and Efficient Multimodal Transportation System

Goal 5 and its five objectives are shown in Table 5-5. This goal and its objectives were revised to include resiliency to address the changes in the FAST Act and FDOT's 2015 FTP Policy Element, as well as local concerns related to climate change and weather-related events.

**Table 5-5: Goal 5 – Provide a Reliable and Efficient Multimodal Transportation System**

| | **Goal 5: Provide a Reliable, Resilient and Efficient Multimodal Transportation System** ***Manage and provide a reliable and efficient multimodal transportation system.*** |
|---|---|
| **Objective 1** | Reduce congestion and/or provide mobility options. |
| **Objective 2** | Protect and enhance state of good repair for the transportation system. |
| **Objective 3** | Implement short-range congestion and mobility management strategies and technologies to optimize efficiency. |
| **Objective 4** | Increase the resiliency of infrastructure to risks, including extreme weather and other environmental disasters. |

These objectives were determined to be consistent with the following local plans:

- The 2025 Comprehensive Plan of Pasco County establishes roadway design and maintenance standards to accommodate existing and future transit facilities. The plan supports mobility options through the accommodation of sidewalks, bikeways, transit infrastructure, frontage roads, landscaping, and other activities. Other modes of transportation are encouraged through the policy that development to consider bicycle facilities, sidewalks, and multiuse trails. A Regional Multi-Use Trail Element was developed to provide mobility options for residents.
- The 2030 Comprehensive Plan for New Port Richey emphasizes multimodal transportation connections along with traditional planning for automobile circulation and roadway beautification. In anticipation of potential for future traffic to overburden Main St and Grand Blvd in Downtown, the City adopted a Transportation Concurrency Exception Area (TCEA) in 1999 and an aggressive infill and redevelopment program. The area coincides with the Downtown future land use category.

- The City of Zephyrhills 2025 Comprehensive Plans calls for a multimodal transportation system and designates level of service standards for vehicle, bicycle, and pedestrian facilities.
- As a part of the Town of St. Leo congestion management strategy, the Level of Service (LOS) standard established for future collector and arterial roads in is "D," including SR-52. No LOS standard is established for local roads in St. Leo. All development must comply with the Concurrency Management section of the Land Development Code, and no development orders may be issued that cause the LOS to drop below the adopted LOS standards.

## Goal 6 – Encourage Public Participation

Goal 6 and its two objectives are shown in Table 5-6. This Goal and its objectives were determined to be relevant for the MOBILITY 2045 LRTP without further amendment. Public involvement is a key component of the planning process. In review of the local government plans, the 2025 Comprehensive Plan of Pasco County includes provisions for public participation and comment as required by State law.

**Table 5-6: Goal 6 – Encourage Public Participation**

| | |
|---|---|
|  | **Goal 6: Encourage Public Participation**<br>***Encourage full public participation early and throughout plan adoption and ensure that the Transportation Plan and MPO planning activities reflect the needs of the community, particularly those that are traditionally underserved.*** |
| **Objective 1** | Promote proactive and early public involvement and provide diverse opportunities for public participation to as many people as possible. |
| **Objective 2** | Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental impacts on minority, low-income, and traditionally underserved populations. |

## MPO Adopted Policy Statements

In addition to the Goals established for guiding the development of MOBILITY 2045, the MPO Board adopted specific Transportation Policy Statements on June 12, 2014, during the MOBILITY 2040 LRTP. These policy statements remain effective for the MOBILITY 2045 update and are listed below.

### *Pasco County MPO Transportation Plan Policy Statements (adopted at MPO Board Meeting, June 12, 2014)*

1. **Maximum Number of Lanes on Non-Freeway/Expressway Road** – Future road improvements on non-freeway/expressway roads shall be limited to a maximum of six general purpose through-lanes. Exceptions may be made on roads that necessitate special use or auxiliary lanes.
2. **Multimodal Transportation –** Multimodal transportation investments will be considered for implementation along with road improvements.
3. **New Roadways –** New roadways may be needed for reasons other than resolving congestion and capacity issues. These reasons may include connectivity, safety, emergency evacuation and access, transit services, and others.
4. **Right-of-Way Preservation –** The identification, protection, and preservation of right-of-way for needed corridors, based on the MPO's Long Range Transportation Plan and the County's Highway

Vision Map, is a critical component of meeting future multimodal transportation needs. Programs that result in protecting and preserving right-of-way are recognized as an integral part of a transportation implementation strategy that ensures that needed right-of-way for roadways, sidewalks and bicycle facilities, multi-use trails, transit, drainage, and landscaping, will be available when needed, and will minimize community disruption and enhance overall project feasibility.

5. **Transportation Management and Operations/Congestion Management Process (CMP) –** Transportation Systems Management (TSM), Transportation Demand Management (TDM), and ITS strategies will be considered, as appropriate, as part of the MPO's Congestion Management Process (CMP). These considerations are included to identify opportunities to increase efficiency through transportation management and operations (intersection and traffic signal improvements and technology) and provide multimodal transportation options to the citizens and visitors of Pasco County. Funding will be set aside annually for the implementation of appropriate strategies.
6. **Land Use and Transportation Connection –** Transportation planning and project funding will reinforce and be consistent with County and cities' land use policy and growth and economic development initiatives as documented in the County's and cities' Comprehensive Plans and Land Development Codes.

## Consistency with Federal and State Plans

Consistency with the National Planning Factors and Goals of the FTP are critical components of the MOBILITY 2045 LRTP. Demonstrating this consistency is a major milestone in conducting the LRTP and ensuring that the planning conducted by the Pasco MPO meets and supports the expectations of the Federal and State requirements. Table 5-7 provides the correlation between the Goals of the FTP and the Goals of the MOBILITY 2045 LRTP.

Demonstrating consistency with the 10 National Planning Factors listed in the FAST Act is shown in Table 5-8.These factors outline the Federal position on planning. The Goals identified by the MPO were aligned with these factors.

**Table 5-7: Comparison of FTP and MOBILITY 2045 LRTP Goals**

| 2015 FDOT FTP Policy Element Goals | MOBILITY 2045 LRTP Goals |
|---|---|
| Safety and Security for Residents, Visitors, and Businesses | *Goal 2* – Improve Safety and Security |
| Agile, Resilient, and Quality Infrastructure | *Goal 4* – Create Quality Places<br>Goal 5 – Provide a Reliable, Resilient and Efficient Multimodal Transportation System |
| Efficient and Reliable Mobility for People and Freight | *Goal 1* – Support Economic Development<br>*Goal 3* – Provide Local and Regional Connectivity and Transportation Choices |
| More Transportation Choices for People and Freight | *Goal 1* – Support Economic Development<br>*Goal 3* – Provide Local and Regional Connectivity and Transportation Choices<br>*Goal 5* – Provide a Reliable, Resilient and Efficient Multimodal Transportation System |
| Transportation Solutions that Support Florida's Global Economic Competitiveness | *Goal 1* – Support Economic Development |
| Transportation Solutions that Support Quality Places to Live, Learn, Work, and Play | *Goal 4* – Create Quality Places |
| Transportation Solutions that Support Florida's Environment and Conserve Energy | *Goal 5* – Provide a Reliable, Resilient and Efficient Multimodal Transportation System |

## Performance Measures

On May 27, 2016, FHWA and FTA issued the Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Final Rule, which modified 23 CFR Part 450 and 49 CFR Part 613. Through revisions to the CFR, this rule detailed how state DOTs and MPOs must implement a suite of related transportation planning and transportation performance management provisions of MAP-21 and the FAST Act.

Performance measures were developed for the 2040 LRTP Objectives that served as the basis for developing the Performance measures for the MOBILITY 2045 LRTP. Performance measures for the MOBILITY 2045 LRTP were updated to reflect Federal requirements as well as changes to the Objectives. These performance measures will determine the extent to which Objectives are achieved under the Cost Feasible Plan developed for the MOBILITY 2045 LRTP. Table 5-9 through Table 5-14 list the performance measures for each Goal and objective.

**Table 5-8: Comparison of FAST Act Planning Factors and MOBILITY 2045 LRTP Goals**

| FAST Act Planning Factors | Goal 1 | Goal 2 | Goal 3 | Goal 4 | Goal 5 | Goal 6 |
|---|---|---|---|---|---|---|
| Economic Vitality | ✓ | | | | ✓ | ✓ |
| Increase Safety | ✓ | ✓ | | | ✓ | ✓ |
| Increase Security | | ✓ | | | ✓ | ✓ |
| Increase Accessibility and Mobility | ✓ | | ✓ | | ✓ | ✓ |
| Improve Quality of Life, Environment, Energy Conservation, and Plan Consistency | | | | ✓ | | ✓ |
| Connectivity | | | ✓ | ✓ | ✓ | ✓ |
| System Management | | ✓ | | | ✓ | ✓ |
| Preservation | | | | ✓ | | ✓ |
| Improve Resiliency and Reliability | | ✓ | | | ✓ | ✓ |
| Enhance Travel and Tourism | ✓ | | | | | ✓ |

**Table 5-9: Performance Measures for Goal 1**

| Goal 1 | Support Economic Development |
|---|---|
| Objective 1 – Access to port, rail & airport | Percent of roadway centerline miles providing access to intermodal facilities that are congested |
| | Freight travel time reliability (Truck Travel Time Reliability Index*) |
| Objective 2 – Access to activity centers | Percent of population within 1/4-mile of bus route |
| | Percent of employment within 1/4-mile of bus route |
| | Frequency of bus service (headways) |
| | Percent of roadway centerline miles that are congested |
| Objective 3 – Corridor preservation | Consistency with Pasco County's Highway Vision Map and Corridor Preservation Program |
| Objective 4 – Public-Private Partnerships | Policy commitment to public-private partnerships in the long-range transportation plan |
| Objective 5 – Consistency with Economic Development Strategy | Percent of total transportation revenues allocated by market area |
| | Percent of transportation revenues allocated to roadway capacity by market area |
| | Percent of transportation revenues allocated to transit by market area |
| | Percent of transportation revenues allocated to multi-use trails by market area |
| Objective 6 – Benefit tourism | Miles/projects that facilitate the tourist economy in Pasco County |

**Federally-required*

**Table 5-10: Performance Measures for Goal 2**

| Goal 2 | Improve Safety and Security |
|---|---|
| Objective 1 – Reduce fatal and serious crashes | Number of fatalities* |
| | Rate of fatalities per 100 million vehicle miles traveled* |
| | Number of serious injuries* |
| | Rate of serious injuries per 100 million vehicle miles traveled* |
| | Number of combined non-motorized fatalities and non-motorized serious injuries* |
| | Ratio of bus miles of service to bus incidents (i.e. service disruptions) per year |
| Objective 2 – Evacuation routes | Percent of emergency evacuation route roadway centerline miles that are congested during peak travel periods |
| Objective 3 – Multimodal security | Consistency with multimodal safety and security plans |
| | Average age of bus fleet |
| | Ratio of bus miles of service to bus incidents (i.e., service disruptions) per year |

**Federally-required*

**Table 5-11: Performance Measures for Goal 3**

| Goal 3 | Provide Local and Regional Connectivity and Transportation Choices |
|---|---|
| Objective 1 – Multimodal accessibility | Percent of major road network with bicycle facilities (4+ foot paved shoulder) |
| | Percent of major road network with sidewalks on 1 or both sides of the road |
| | Percent of major road network served by local bus routes |
| | Number of regional bus routes |
| | Miles of multi-use trails |
| Objective 2 – Regional connectivity | Percent of roadway centerline miles providing access to major activity centers that are congested |
| | Vehicle hours of delay |
| | Number of regional bus routes |
| Objective 3 – Plan consistency | Consistency with local and regional transportation and land use plans |

**Table 5-12: Performance Measures for Goal 4**

| Goal 4 | Create Quality Places |
|---|---|
| Objective 1 – Land use coordination | Consistency of growth projections with Pasco County growth strategy |
| Objective 2 – Investment in market areas | Consistency of transportation revenue allocation by market area with Pasco County growth strategy |
| Objective 3 – Environmental | Policy commitment of long-range transportation plan to evaluate and mitigate environmental impacts |
| Objective 4 – Active transportation | Percent of major road network with bicycle facilities |
| | Percent of major road network with sidewalks |
| | Percent of major road network served by a local bus route |
| | Percent of population within 1/4-mile of bus route |
| | Percent of population within 1 mile of a multi-use trail |
| Objective 5 – Aesthetic values | Number of roadway centerline miles designated as scenic corridors |
| Objective 6 – Impacts to activity center access | Percent of roadway centerline miles providing access to major activity centers that are congested |
| | Percent of person-miles on the Interstate system that are reliable, also referred to as Level of Travel Time Reliability (LOTTR)* |
| | Percent of person-miles on the non-Interstate NHS that are reliable (LOTTR)* |
| Objective 7 – System preservation | Level of investment in preserving the existing transportation system |
| Objective 8 – Transportation Disadvantaged | Transit ridership by the transportation disadvantaged (paratransit and fixed-route local bus) |

** Federally-required*

**Table 5-13: Performance Measures for Goal 5**

| Goal 5 | Provide a Reliable, Resilient and Efficient Multimodal Transportation System |
|---|---|
| Objective 1 – Reduce congestion/provide options | Percent of roadway centerline miles that are congested |
| | Hours of transit service per capita |
| | Miles of sidewalks |
| | Miles of bicycle facilities |
| Objective 2 – State of good repair | Level of funding for transportation operations and maintenance |
| | Percent of Interstate pavements in good condition* |
| | Percent of Interstate pavements in poor condition* |
| | Percent of non-Interstate National Highway System (NHS) pavements in good conditions* |
| | Percent of non-Interstate NHS pavements in poor condition* |
| | Percent of NHS bridges by deck area classified as in good condition* |
| | Percent of NHS bridges by deck area classified as in poor condition* |
| Objective 3 – Congestion management | Level of funding set aside for short-term congestion and mobility management strategies |
| Objective 4 – Resiliency | Lane miles of evacuation routes per 100,000 population |
| | Centerline miles of high resilience priority facilities (as defined in the Resilient Tampa Bay: Transportation Pilot Program Project) |

**Federally-required*

**Table 5-14: Performance Measures for Goal 6**

| Goal 6 | Encourage Public Participation |
|---|---|
| Objective 1 – Proactive involvement | Number of events facilitated |
| | Number of participants in the public participation process |
| | Number of techniques used to disseminate information to the public |
| Objective 2 – Underserved populations | Percent of under-represented population areas with potential adverse effects resulting from transportation projects |
| | Percent of under-represented population areas with potential positive effects resulting from transportation projects |

MOBILITY 2045

Pasco County MPO
Transportation Plan

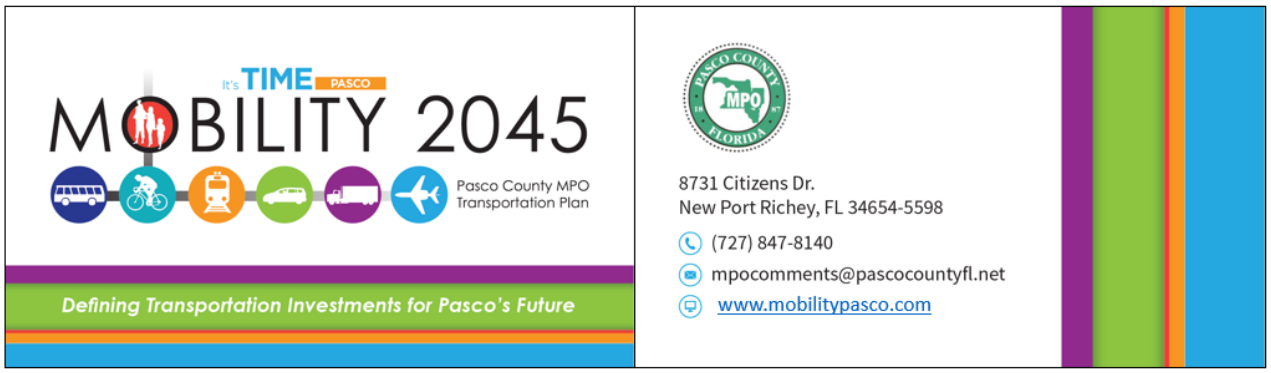
# Chapter 6
# Public Outreach Results and Summary

# Introduction

This chapter provides supporting detail related to the specific outreach activities completed for the MOBILITY 2045 LRTP update and the public input and comments collected as a result. Key outreach activities completed include the following:

- MPO Board and Committee Meetings and Presentations
- EJ Workshops
    - Online Surveys – It's TIME Pasco and It's TIME Tampa Bay
- Public Workshops, Presentations, and Outreach Events
- Interactive Online Map (WikiMap)
- 30-day Public Comment and Review Period

**Figure 6-1: MOBILITY 2045 Information Business Cards***




**Distributed at meetings and MOBILITY 2045 events to share project information and updates*

# Outreach Methods

This section describes the tools and techniques used by the Pasco County MPO to inform the public of MOBILITY 2045 updates, progress, and to engage them in meetings, activities, and events.

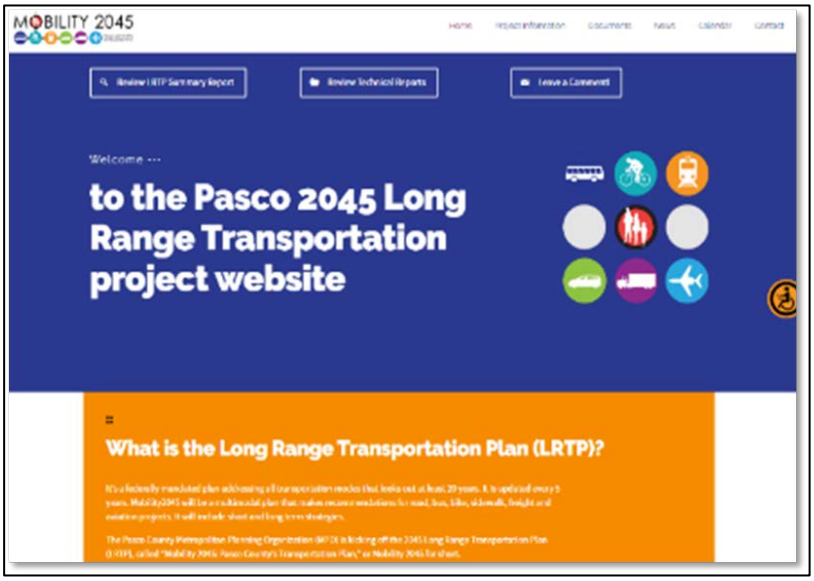
The following public involvement activities that gauged public perception of transportation needs and system improvements in the county are summarized in this section:

- Project website
- Social media
- Online surveys
- Community workshops and presentations
- MPO Board and committee meetings

## Project Website

The MOBILITY 2045 project website ( www.mobilitypasco.com ) was the single source of all information and project-related materials for update and included links to all the maps, documents, and presentations developed for the plan as well as information about the project schedule and how to get involved. From October 15, 2018, when the website went live, until December 11,2019, when the LRTP was adopted, there were 1,057 unique users that visited the project website and a total of 3,128-page views during this time period.

**Figure 6-2:MOBILITY 2045 Project Website Homepage (www.mobilitypasco.com)**




## Social Media

Social media was a key forum for communication regarding event and meeting announcements and project updates. Pasco County Development Services' Facebook, Instagram, and Twitter accounts (@PlanningPasco) were used by the Pasco MPO to connect with the community and distribute information about the MOBILITY 2045 update. Social media content and event information posted by the MPO (related to MOBILITY 2045) resulted in the following engagement:

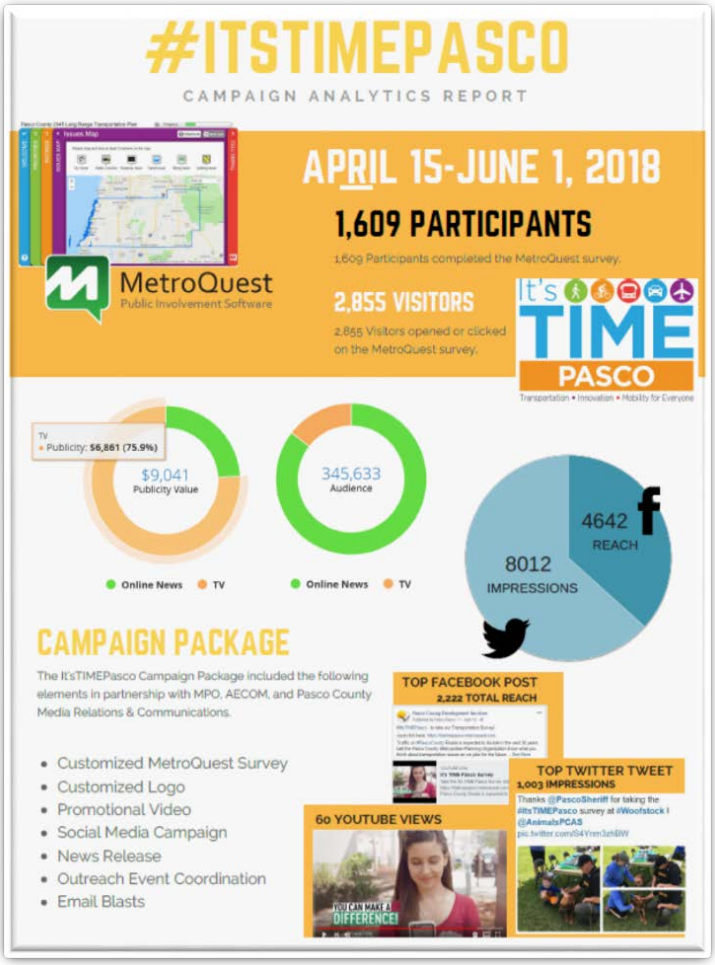
- 3,626 Facebook Impressions
- 369 Facebook Engagements
- 6,518 Twitter Impressions
- 133 Twitter Engagements
- 109 Instagram Likes

**Figure 6-3: Pasco County Development Services (@PlanningPasco) Social Media Posts**


Social media outreach and public engagement campaign was hosted for the It's TIME Pasco online survey is summarized in the campaign analytics report (Figure 6-4) and resulted in the following engagement:

- 4,642 Facebook Reach
- 8,012 Twitter Impressions
- Nearly 350,000 audience (online news and TV)
- YouTube video
- Facebook Live

**Figure 6-4: It's TIME Pasco Survey Media Campaign Analytics Report**




## Online Survey & Interactive Web Map

Two online surveys were conducted to provide opportunities for residents to comment on and share ideas on the type of transportation investments that are best needed to serve Pasco County and the Tampa Bay region through the year 2045. The It's TIME Pasco online survey was live from April 16, 2018 to June 2, 2018 and asked Pasco residents to identify their transportation priorities within the County. The It's TIME Tampa Bay online survey was a tri-county (Hillsborough, Pasco, Pinellas) regional outreach effort and ran from July 31, 2018 to October 1, 2018. The regional survey asked residents of the Tampa Bay area to weigh in on future growth priorities and transportation options for the Tampa Bay region. Between the two online surveys, there were a total of 11,184 residents that participated and answered questions. During these two online surveys, staff attended community events to promote and inform the public of their opportunity for providing input on development of the LRTP. A few of the workshops and presentations included:

- Commissioner Starkey Town Hall Meetings
- Commissioner Mariano Meeting at Holiday Library
- Numerous presentations to City Councils 2017 to 2019
- MOBILITY 2045 workshops
- Facebook live events
- CARES Center in Elfers
- Land O' Lakes Humane Society Day at the Park
- Dade City – Grand opening of Stallings Building

- Dade City Youth Council Day

An interactive online web map was also developed for the public to vote on transportation projects and to prioritize transportation improvements in Pasco County that ran from July 15 to August 15, 2019. There were 200+ project votes and 150+ comments provided on the web map.

## Workshops and Presentations

Workshops were held at various locations throughout Pasco County and provided an opportunity for the public to learn about MOBILITY 2045. Workshops and presentations also provided opportunity for residents to comment on transportation at the countywide level and to comment on specific issues, needs, and transportation projects within more defined sub-areas of the county.

Meetings and presentations were held during the three phases of the LRTP update process—initial issues and concerns identification, needs assessment, and at the end of the plan development when the MPO was identifying cost feasible projects for the LRTP. Participants at these meetings also were informed of updates during the plan development and other opportunities to comment on the process. In total, more than 190 people attended the workshops and presentations held during the MOBILITY 2045 update.

**Figure 6-5: Pasco County Development Services LRTP Adoption Facebook Post**
*Adoption of the LRTP was announced on Pasco County Development Services social media accounts at the conclusion of the MOBILITY 2045 update process.*


## MPO Board and Committee Meetings

Meetings with the MPO Board and Committees were held throughout the project to discuss and review technical analyses and the development of the different phases involved in the MOBILITY 2045 update. These meetings provided the opportunity for members to provide input on developing the vision and direction the LRTP would take. Topics covered included the Vision and Goals, transportation revenue scenarios, the Needs Assessment, project cost assumptions, and the Cost Feasible Plan.

In addition, regional coordination with the Hillsborough MPO (Plan Hillsborough) and the Pinellas MPO (Forward Pinellas) was conducted on a monthly basis to coordinate the development of each MPO's 2045 LRTP through the Technical Review Team Meetings.

Ultimately, MOBILITY 2045 was adopted by the MPO during an advertised Public Hearing on December 11, 2019, and was preceded by a public comment period that extended from November 6 to December 5.

# Results Summary

This section provides a summary of the results from the main engagement events in the three phases of the LRTP development—identification of transportation issues and concerns, prioritizing future transportation needs, and identifying cost feasible projects.

## Issues and Concerns

The first phase of public involvement included holding EJ service provider workshops and running online surveys to identify and respond to transportation issues and challenges facing Pasco County.

### *EJ Service Provider and Agency Workshops*

Two discussion group workshops were held to discuss the potential impacts of transportation improvements on the older adult, minority, and low-income populations in Pasco County. Transportation improvements that abutted or bisected minority and/or low-income communities were reviewed by participants in the discussion groups. Participants included agencies that represent underrepresented and under-served populations in Pasco County.

**Figure 6-6: Equity Area Workshops Welcome Sign**

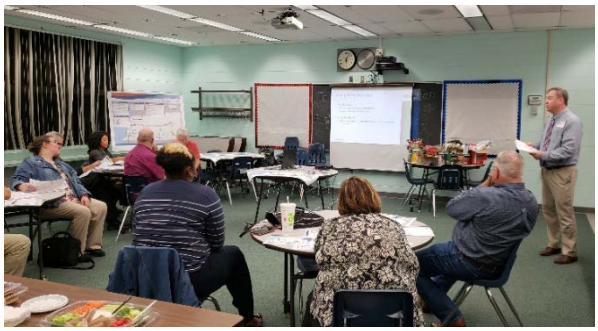

In addition to geographic and quantitative analysis, input received during these workshops were used in identifying EJ areas when assessing potential impacts of transportation projects. The feedback and opinions received were used to develop and prioritize the future transportation improvement projects so the proposed transportation projects will not have a negative impact on the traditionally under-served population groups in Pasco County.

Two workshops were facilitated to gather input from service providers and agencies on November 13, 2018, from 5:30 to 7:30 pm at Lacoochee Elementary School and on November 15, 2018, from 5:30 to 7:30 pm at Fasano Center. The attendees provided representative insights into what geographic areas and modes of transportation can increase mobility for the focus populations.

The Pasco County MPO and PCPT provided a recently updated list of social service organizations and agencies with whom they maintain contact. Invitations were sent to the contacts on this list. Workshop attendees included:

- Valerie Anderson – Housing Authority
- Mark Barry – The ARC Nature Coast
- Sherri Dunham – DSBPC
- Ronald Oakley – County Commissioner
- MisIvy Reittic – Housing Authority
- Richard Riley – Citizen
- Kate Saksefski – VR Dade City
- Brooke Taylor – Medfleet

**Figure 6-7: Environmental Justice Workshop**



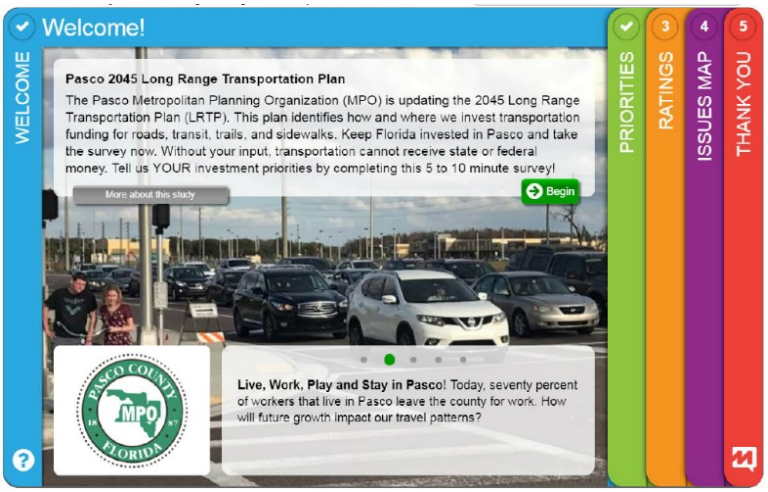
- Judy Geiger – Citizen
- Tania Gorman – Pasco MPO
- Manny Lajmiri – Pasco MPO
- Wally Blain – Tindale Oliver
- Rob Cursey – Tindale Oliver
- Sarah Goolsby – Tindale Oliver

Common themes from the workshop included the idea that transit is an important method of transportation for communities of focus; improving transit service is important, particularly frequency of service, daily hours of operation of service, and provision of service on weekends and holidays. Maintaining affordability of the service is also important. Walking and biking also are considerations, as they are currently a common mode of transportation and a means of accessing transit. When asked to rank priority service improvements, however, walking and biking access was a lower priority when compared to service frequency, intersection safety, and roadway capacity and maintenance considerations.

### *It's TIME Pasco*

The online survey It's TIME Pasco ran from April 16 to June 2, 2018, and asked Pasco residents to identify their transportation priorities and needs. There was significant participation in the online survey, with 4,464 total impressions, 1,609 visitors that answered at least some survey questions, and 2,855 visitors that opened the survey site but did not provide input.

**Figure 6-8: It's TIME Pasco Survey Welcome Screen**

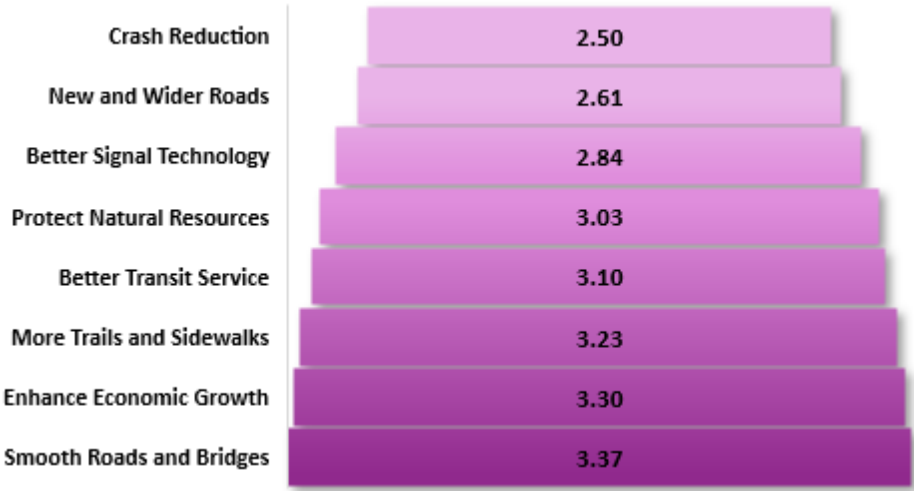



The survey consisted of questions that asked respondents to prioritize their top five priorities from the following transportation investment options—more trails and sidewalks; better transit service; new and wider roads; smoother roads and bridges; protection of natural resources; better signal technology; enhanced economic growth; and crash reduction. Survey respondents were then asked to rank their level of satisfaction for each of their top five priorities. Respondents were also asked to indicate transportation issues on an interactive map.

#### Transportation Investment Priorities

Results from the survey showed that overall, survey respondents most frequently ranked crash reduction, new and wider roads, and better signal technology as their top transportation investment priority are shown in Figure 6-9. Smooth roads and bridges were the lowest ranked priority.

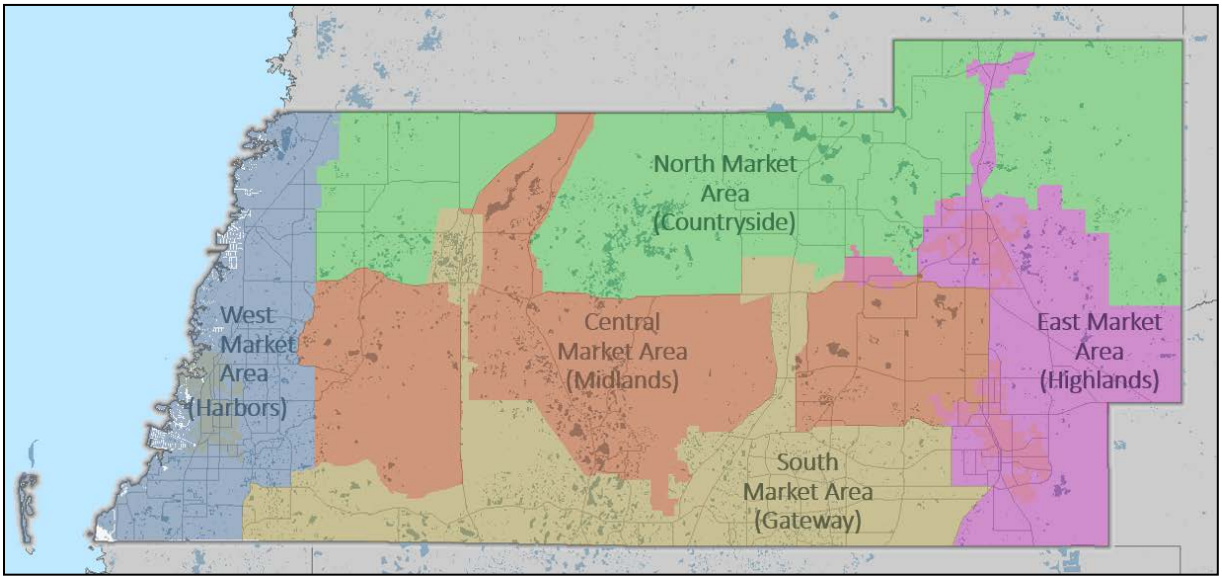
**Figure 6-9: Average Rank for Transportation Investment Priorities**




**Note: Highest ranking was 1, so lower-ranking averages are higher priorities*

Overall transportation investment priority responses were sorted by ZIP code into five market areas to further analyze and better identify transportation needs in Pasco County. The location of the five market areas—West (Harbors), South (Gateway), Central (Midlands), East (Highlands), and North (Countryside)—are shown in Figure 6-10 . The top three transportation investment priorities by market area are summarized below.

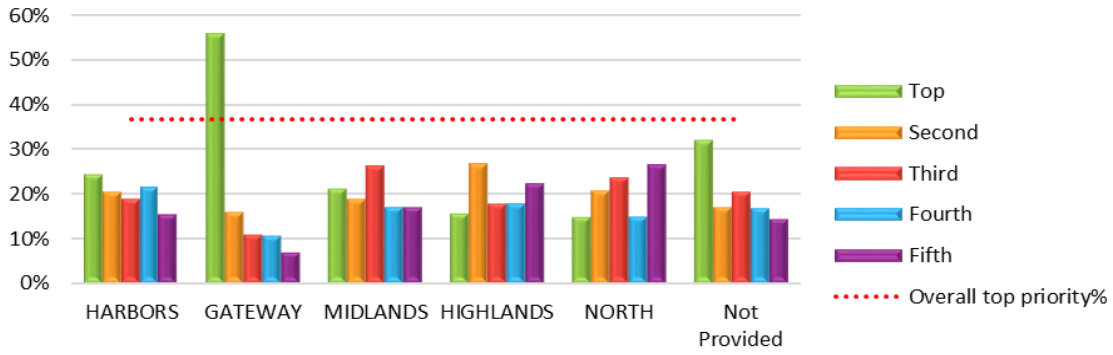
**Figure 6-10: Market Areas**




As the top-ranked priority, crash reduction was ranked 409 times as the #1 priority. In the overall responses, the average ranking for this category was 2.5 among respondents (1 was highest priority and 5 was lowest priority). When defined by market area, Figure 6-11 shows that crash reduction was marked the #1 priority for only two market areas (The Harbors and Gateway). More than half of

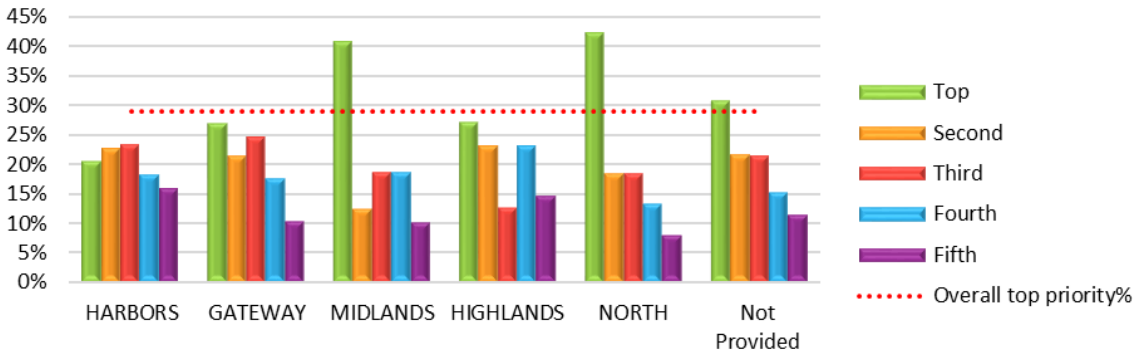
respondents in Gateway ranked crash reduction as their top priority, and 24 percent in The Harbors identified crash reduction as the highest priority. Crash reduction was also the top-ranked priority among all the respondents who did not provide their home ZIP code.

**Figure 6-11: Crash Reduction Transportation Investment Priority by Market Area**




The second-ranked priority was new and wider roads, cited 297 times as the #1 priority. The overall average ranking for this category was 2.6 among all respondents. From the list of respondents who included a home ZIP code, Figure 6-12 shows that new and wider roads was a top priority among all market areas except for The Harbors. In The Harbors, only 20 percent of all respondents ranked new and wider roads as a top priority, and the average ranking was 2.9. Among all, Midlands and North had the highest percentage of respondents who ranked this item as the top priority (41–42%, average ranking of 2.3–2.4). New and wider roads was also the top-ranked priority among all respondents who did not provide their home ZIP code.

**Figure 6-12: New and Wider Roads Transportation Investment Priority by Market Area**

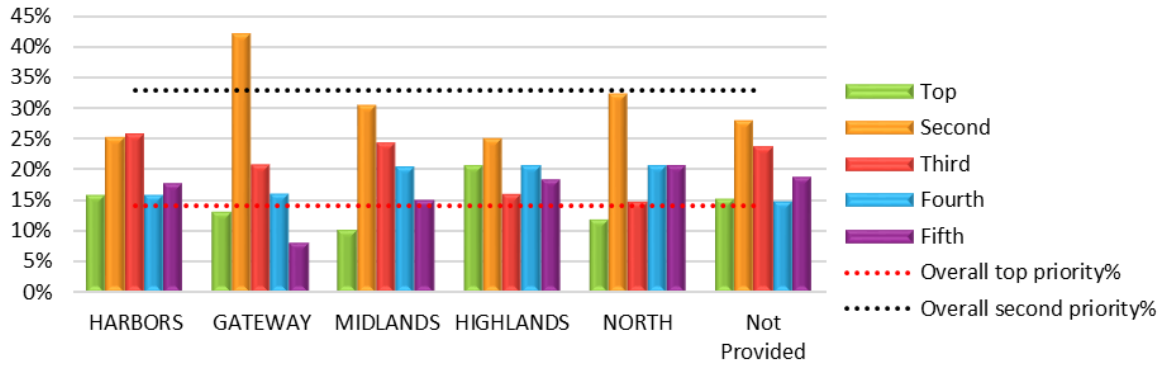



The third-ranked priority, better traffic signal technology, was cited 155 times, with an overall average ranking of 2.8 among all respondents. When defined by market area, better signal technology was most frequently ranked as second priority among all market areas except for the Harbors.

Figure 6-13 shows that in The Harbors, the highest percentage of respondents (26%), ranked this category as the third priority. Overall, this category was more important to respondents in Gateway, with 55 percent ranking it as the top or second priority (13% priority 1, 42% priority 2). Highlands was

second, with 45 percent ranking it as priority #1 or #2 (20% priority 1, 25% priority 2). Highlands also had the highest share of respondents who ranked better signal technology as their #1 priority among all market areas; however, the total number was small (9 responses).

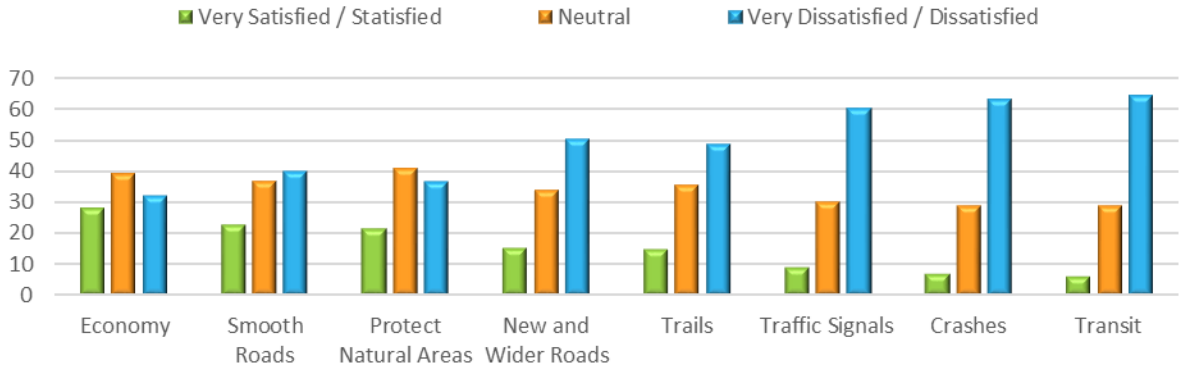
**Figure 6-13: Traffic Signal Transportation Investment Priority by Market Area**




## Transportation Investment Satisfaction

Survey respondents were asked to rank their satisfaction with the existing level of transportation investment for the priorities they ranked. Economy and smooth roads had the highest rates of satisfaction, with 28 percent indicating that they were very satisfied/ satisfied with the economy and 22 percent indicating that they were very satisfied/ satisfied with the smoothness of roads. The three transportation investment priorities with the lowest level of satisfaction (60–65%) were traffic signals, crashes, and transit. An item of note is that the satisfaction rating had an inverse relationship to the priority rating of transportation investment; the priority rating and satisfaction in conjunction provide additional context to the transportation investment needs in the county.

**Figure 6-14: Combined Satisfaction for Transportation Investments**

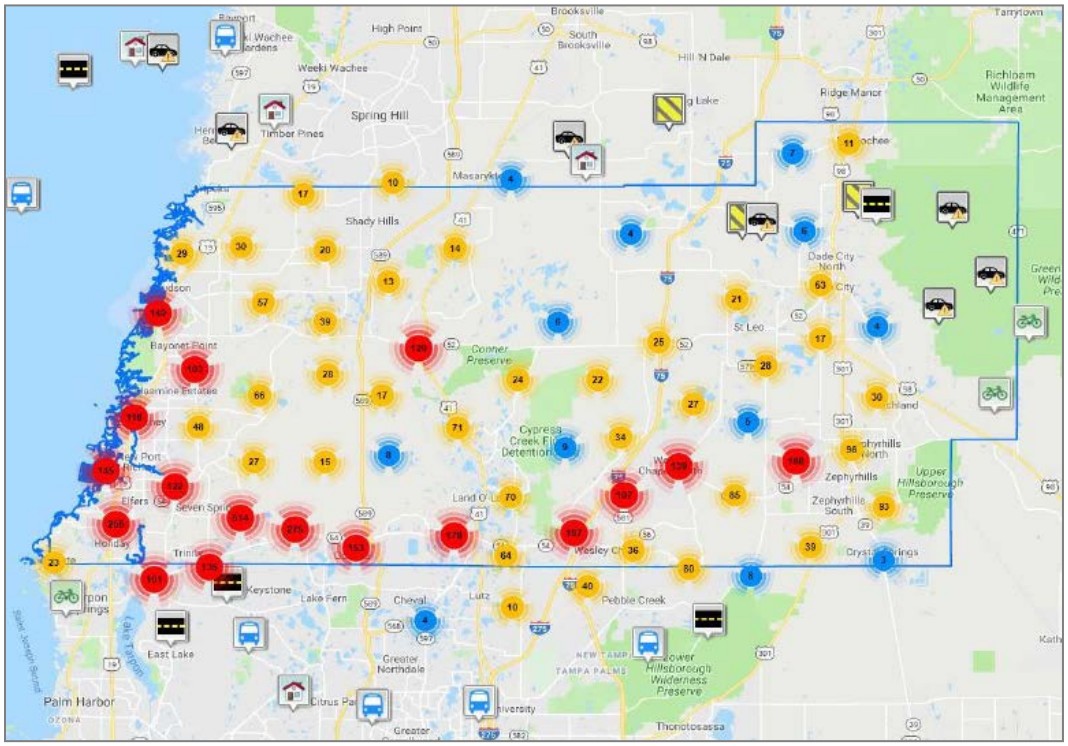



## Transportation Concern Map

At the end of the It's TIME Pasco survey, respondents were presented with an interactive map on which they could identify locations of safety, roadway, transit, biking, and walking concerns or issues. Figure 6-15 shows the overall summary of the locations for which concerns were submitted. Areas with the highest concentration of concerns were on the western edge of the county, along US-19 from Hudson to Holiday; the southern boundary of the county, along Trinity Blvd and SR-54; and in Wesley Chapel,

Wesley Chapel South, and Zephyrhills. The intersection of SR-52 and US-41 was also an area where multiple respondents identified an issue, specifically with roadway congestion and safety.

**Figure 6-15: Overall Summary of It's TIME Pasco Transportation Concern Map**




## Transportation Vision and Needs

The second phase of public involvement included a tri-county online survey, public workshops, and an interactive web map. The public input from these activities helped assess transportation needs and prioritize future transportation projects for MOBILITY 2045.

### *It's TIME Tampa Bay*

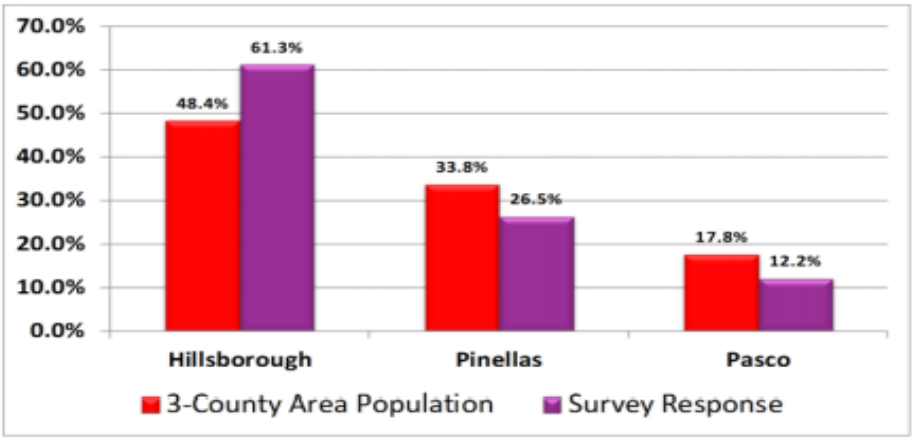
This section includes a brief overview of the It's TIME Tampa Bay survey results and figures from the full MetroQuest summary report, which can be found at www.itstimetampabay.org.

It's TIME Tampa Bay was developed as a tri-county planning effort in support of the MOBILITY 2045 LRTP updates for the Hillsborough, Pasco, and Pinellas MPOs. Survey questions were designed to gain input on a regional vision that accommodated the projected regional growth using a mix of transportation and land use scenarios. Respondents were asked to identify project priorities and transportation needs for the regional multimodal transportation network, including roads, transit, bicycle, pedestrian, and trail facilities. Results from the survey were used to help identify county-specific and regional projects that support and enhance regional mobility.

The survey ran for a two-month period from July 31 to October 1, 2018. In total, 17,762 visitors opened the survey, and 9,575 visitors answered at least some survey questions. Surveys that included home ZIP

codes are summarized by county compared to population in Figure 6-16. Pasco County respondents represented 12 percent of all survey responses, approximately 6 percent lower when compared the County's share of the population within the three counties. However, it is important to note that more than 3,000 surveys did not include a home ZIP code.

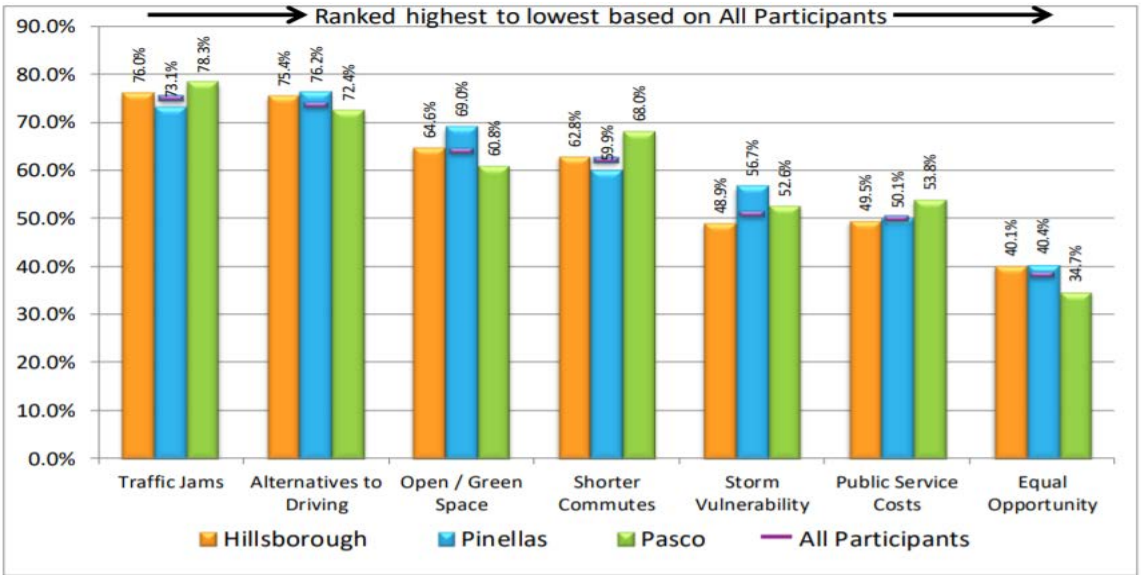
**Figure 6-16: Overall Survey Responses by County as Compared to Population**




## Transportation Investment Priorities

The survey consisted of questions that asked respondents to prioritize areas for future transportation investment such as alternatives to driving, traffic jams, public service costs, open/green spaces, shorter commutes, and equal opportunity storm vulnerability. Figure 6-17 shows the percentage of times that each priority was identified, by county, compared to the overall survey response by all respondents. Overall, traffic jams, alternatives to driving, and open/green space were the top 3 identified priorities. The top 3 priorities identified by Pasco County residents (traffic jams 78.3%, alternatives to driving 72.4%, and shorter commutes 68.0%) are similar to those identified at the regional level.

**Figure 6-17: Priority Ratings by County**



## Potential Growth and Transportation Scenarios

The survey presented respondents with three transportation and land use scenarios and asked them to rate the overall themes of the scenarios using 1 to 5 stars, with 1 representing the least appealing score and 5 the most appealing. Scenario A presented new technologies (driverless cars and rapid bus service) and few roadway projects to manage traffic flow. Scenario B presented expressway lanes on the outer perimeter of the urban area to address congestion and efficient travel movement. Scenario C presented bus and rail services connecting communities to manage traffic demand (see Figure 6-18**).** The average rating for each scenario by county is shown in Figure 6-19 through Figure 6-21. Scenario C had the highest overall average rating (4.08); however, Pasco County respondents ranked this option slightly lower than the overall overage, at 3.96. Scenario A followed by Scenario B were ranked with lower overall ratings, at 2.86 and 2.53, respectively. In both A and B, Pasco County respondents ranked the scenario slightly higher than the overall average.

**Figure 6-18: Illustration of It's TIME Tampa Bay Growth Scenarios**

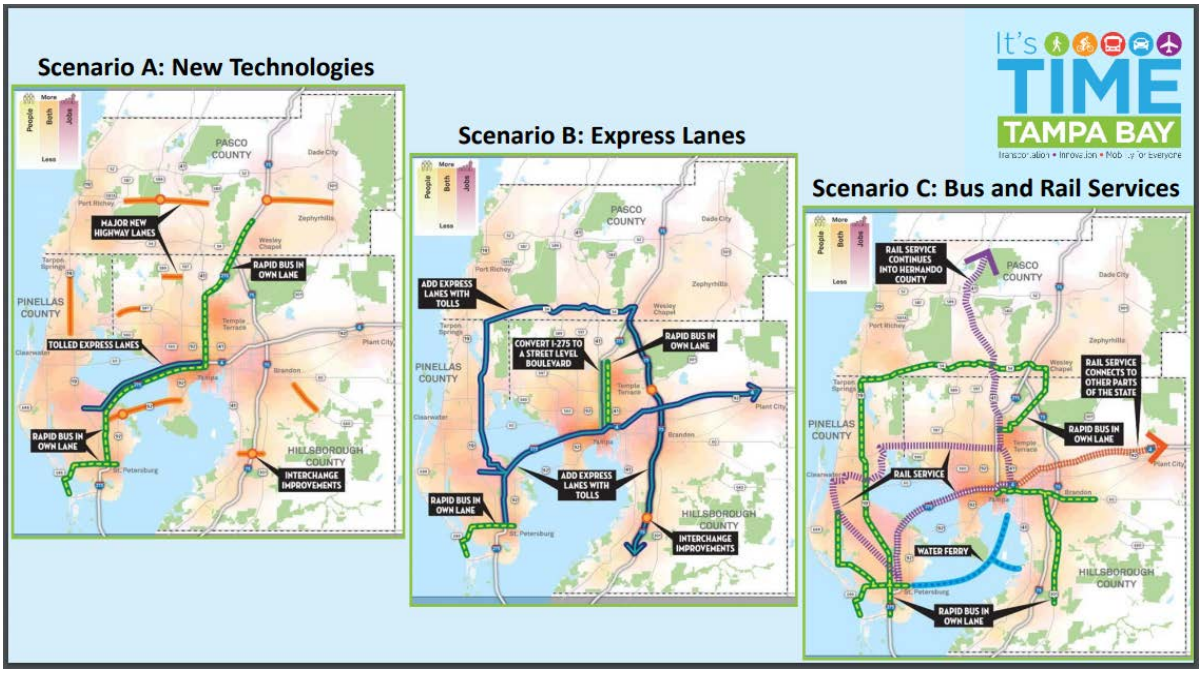



**Figure 6-19: Scenario A – New Technologies Average Rating**

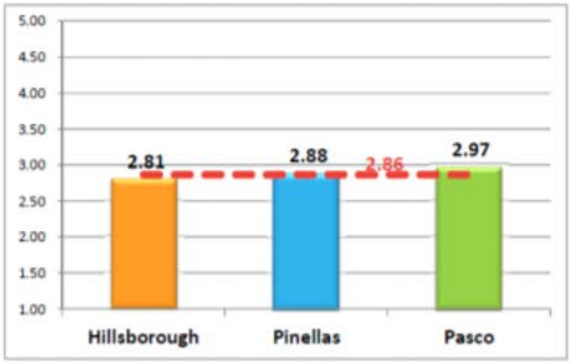



**Figure 6-20: Scenario B – Expressway Lanes Average Rating**

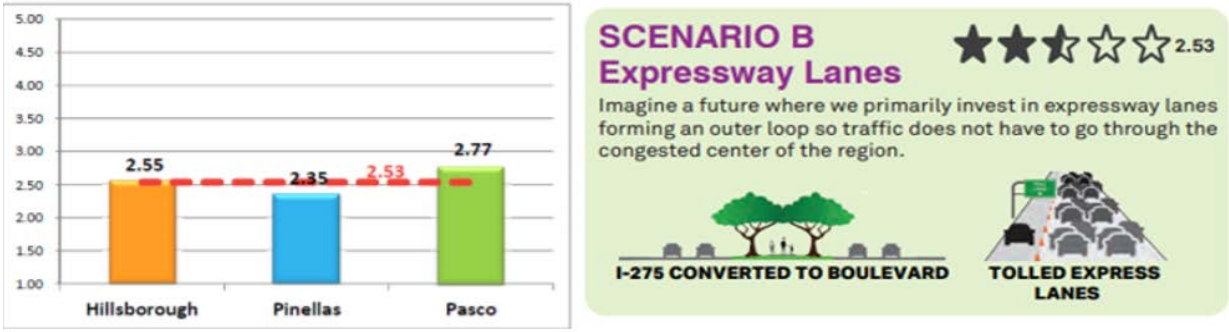
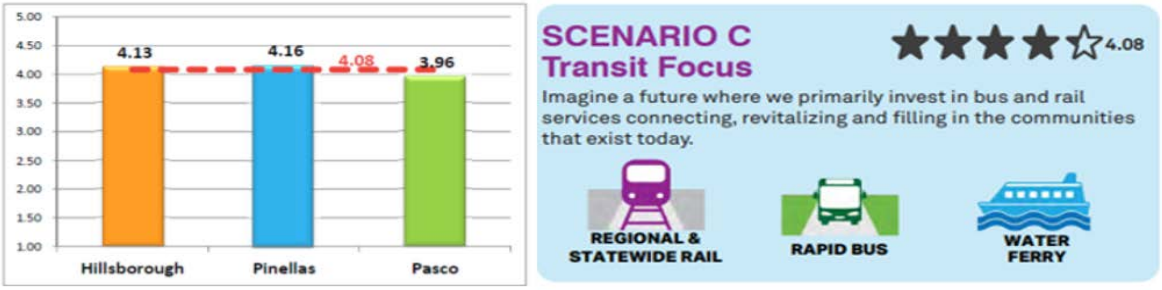


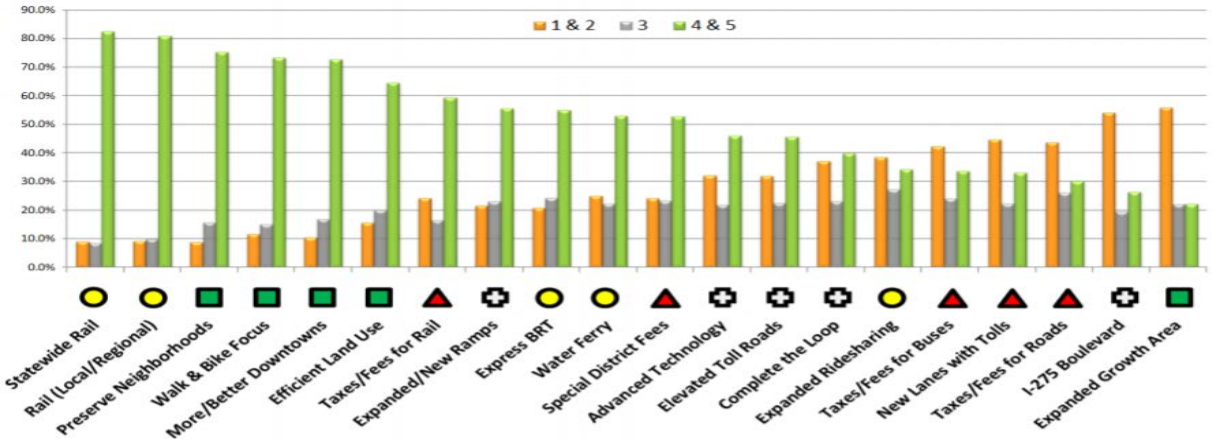

**Figure 6-21: Scenario C – Transit Focus Average Rating**




## Transportation Element Priority Rating

Survey respondents were asked to rate the individual elements of each scenarios (e.g., rail, toll roads, efficient land use, etc.) to provide more detailed input about their preferences for future transportation. Respondents were asked to rank the scenarios using 1 to 5 stars. Figure 6-22 shows all the elements sorted by average rating, from the most supported elements on the left to the least supported on the right. Rail transit elements were among the highest ranked, along with community elements addressing efficient and effective land use (walk and bike focus, more/better downtowns, efficient land use). Taxes/fees for rail were ranked more favorably than taxes/fees for buses and roads. The three lowest ranked elements included taxes/fees for roads, I-275 Boulevard, and expanded growth areas.

**Figure 6-22: All Transportation Element Priority Rating**



### *Transportation Needs Public Meetings*

Five public workshops and community events were held and engaged more than 90 members of the public. Presentations included an overview of MOBILITY 2045 goals, baseline roadway and transit conditions, and a summary of the input received from the public engagement events (surveys, workshops and meetings). These workshops and community events provided the opportunity for people to comment on roadway priorities and transit priorities. All workshops and community events were held in 2019 and at the following locations:

- Land O' Lakes Rotary – June 28, 7:30 AM
- New Port Richey Public Library – July 16, 5:00–7:30 PM
- The Shops at Wiregrass – July 20, 10:00 AM–2:00 PM
- Historic Courthouse (Dade City) – July 23, 5:00–7:30 PM
- Northeast Pasco Concerned Citizens – July 31, 6:00 PM

**Figure 6-23: Public Workshops and Community Events**

### *Community Remarks Interactive Web Map*

The online interactive map was posted July–August 2019 and provided an opportunity for residents to vote on future transportation projects and comment on specific projects or areas of concern. Over 200 votes were submitted on future transportation projects, and over 150 community comments were posted on the web map. The future transportation projects shown on the interactive web map were identified through an analysis of the baseline and future transportation conditions and through the input received from the previous public engagement events (online surveys, workshops, meetings). The Community Remarks platform was used to gather comments and provide an interactive forum for commenting and proving input.

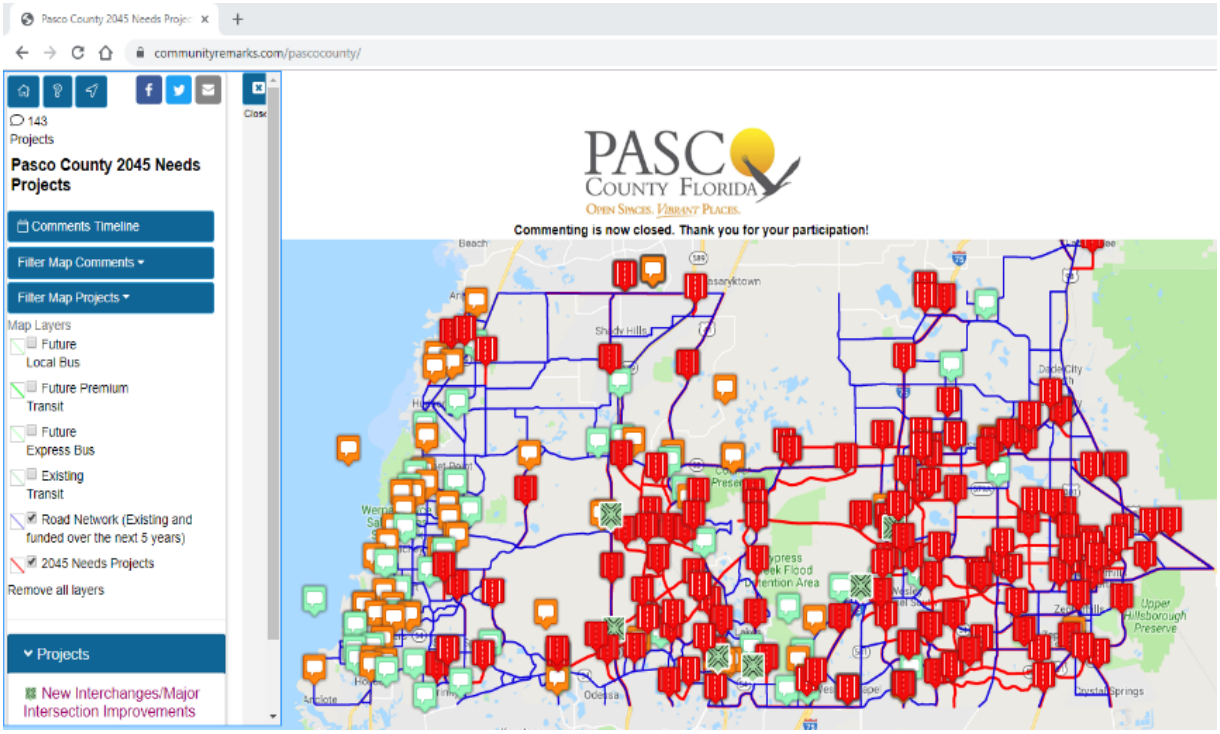
## Web Map Results Summary

### *Future Transportation Project Votes*

Of the 200+ votes received from the interactive web map, the projects with the most support/ votes included:

- SR-54 Overpass at US-41
- Starkey Rd Extension (S of SR-54)
- County Line Rd (Hernando)
- I-75 at Overpass Rd
- Starkey Rd (N of SR-54)
- Mansfield Blvd (N of SR-56)
- Zephyrhills West Extension

**Figure 6-24: MOBILITY 2045 Interactive Web Map Home Page**



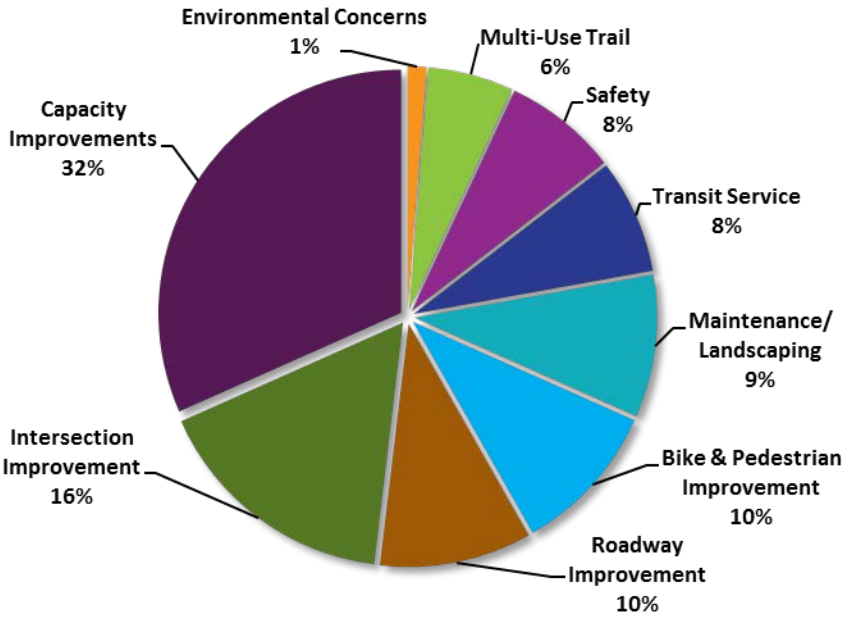

### *Map Comments*

The comments posted on the web map were summarized and grouped into the nine categories listed in Table 6-1. Of the overall comments, the largest number of comments were capacity improvements (32%), followed by intersection improvements (16%), roadway improvements (10%), and pedestrian and bike improvements (10%). Responses from the It's TIME Pasco survey showed a trend similar to the web map comments, with capacity improvements and intersection improvements noted in the top priorities. However, safety was ranked higher by It's TIME Pasco survey respondents than web map respondents.

**Table 6-1: Map Comment Categories**

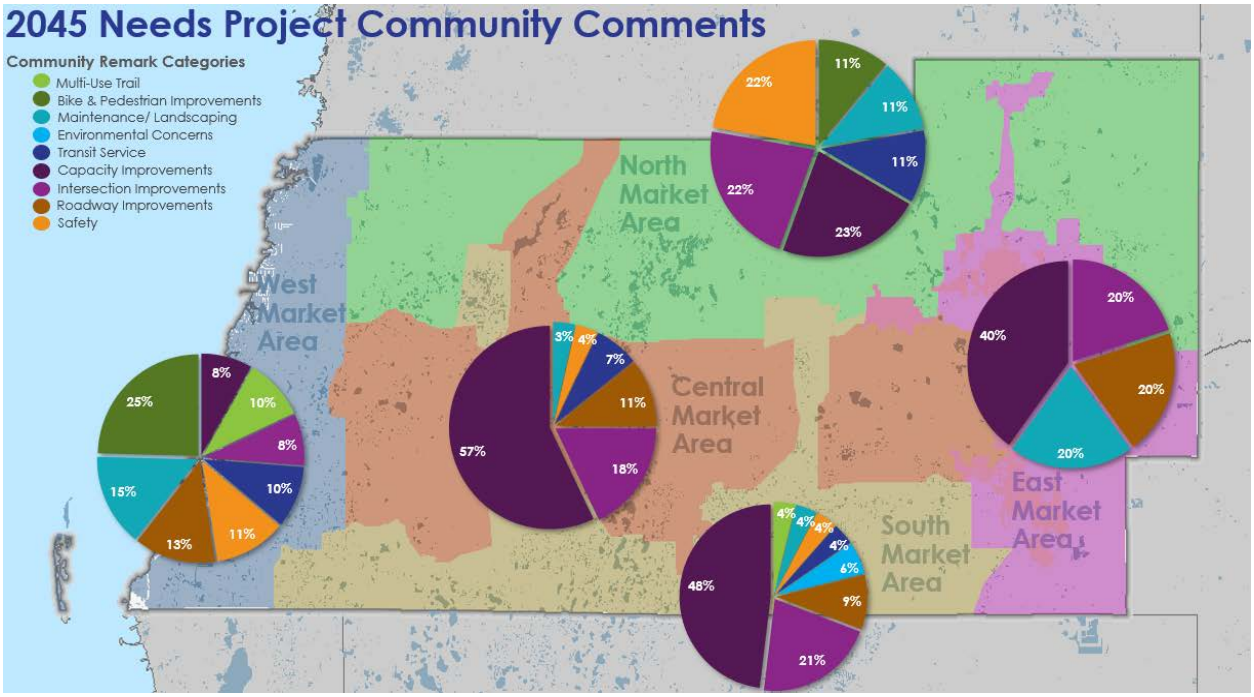
| Comment Category | Type of Comment |
|---|---|
| Capacity Improvements | Road extensions, road widening, new roads |
| Intersection Improvements | Turn lanes, signal timing, crosswalks, traffic signals |
| Roadway Improvements | Access, egress, infrastructure issues |
| Pedestrian and Bike Improvements | New sidewalks, new bike lanes, pedestrian and bicycle crossings, sidewalk and bike lane maintenance |
| Maintenance and Landscaping | Road maintenance, landscaping, street trees |
| Transit Service | Bus route and service improvements, bus facility maintenance, new transit modes (e.g. train, ferry) |
| Safety | Traffic speed, traffic signage, pedestrian and bicyclist safety |
| Multi-use Trails | New off-road paths and trails |
| Environmental Concerns | Impacts on environmentally sensitive areas, wildlife crossing |

**Figure 6-25: Overall Web Map Comments by Concern Category**




Web map comments were also categorized by the market areas they addressed (Figure 6-26). Capacity improvements were the most noted responses on the web map for the Central (57%), South (48%) and East (40%) Market Areas, and responses from the IT's TIME Pasco survey noted capacity improvements as the highest priority in Central (41%) and North (42%) Market Areas. Intersection improvements also featured prominently in all Market Areas except for the West Market Area. Bike and pedestrian improvements were noted the most in the West Market Area (25%), followed by the North Market Area (11%). Similar trends were reflected in the priorities indicated by survey responses from It's TIME Pasco Survey for the West Market Area. No web map comments were made regarding bike and pedestrian improvements in the Central, South, and East Market Areas. Safety was featured most prominently in North Market Area, followed by the West Market Area and was most prominently featured in Central Market Area in responses to It's TIME Pasco survey.

**Figure 6-26: Web Map Comments by Comment Category and Market Area**




## Cost Affordable Plan

The third phase of public involvement included outreach presentations that supported the identification of transportation needs that could be funded based on priorities and available revenues for future transportation projects. It also included a public review and comment period on the Draft Plan and adoption of the Final Plan.

### *Workshops and Outreach Presentations*

Five outreach presentations were conducted with community partners to present the findings from the Needs Plan and provide an opportunity for the public to provide feedback on where future transportation funding should be allocated. Available revenues and Cost Feasible Plan projects were presented to more than 100 people that attended the events to help ensure that the plan reflected the region's transportation priorities. The presentations were held in 2019 on the following dates and times:

- Greater Pasco Chamber Member Luncheon – October 8, 11:30 AM
- Commissioner Starkey Town Hall Meeting – October 9, 6:30 PM
- Wake Up Greater Pasco Member Breakfast – October 18, 7:30 AM
- New Port Richey Public Library – November 5, 5:00–7:30 PM
- Historic Courthouse (Dade City) – November 6, 5:00–7:30 PM

**Figure 6-27: Workshops and Outreach Events**

### *30-Day Public Comment Period and MOBILITY 2045 Adoption*

The MPO encourages public participation in the development, review, and adoption process of its plans and strived to create many opportunities for the public to participate during the MOBILITY 2045 LRTP update process. In addition to the public involvement conducted during the update process, the MPO identified a minimum review and comment period of 30 days for the LRTP prior to adoption of the document. Opportunities were made available for citizens and stakeholders to provide input during the 30-day public comment period (November 1 to December 1, 2019) through phone calls, emails, online comments, and comment forms. The MPO continued to maintain and update the MOBILITY 2045 project website (mobilitypasco.com) to include the draft MOBILITY 2045 LRTP, information about providing input on the plan, and previous data and information posted to the website over the past year.

Feedback received from citizens during the comment period included the following:

- Recent paving on Ehren Cutoff to increase the shoulder width has increased the speed of truck traffic.
- In the Zephyrhills and Wesley Chapel area, there appears to be a lack of north/south improvements compared with the east/west improvements.
- Intersection of SR-52 and St. Joe Rd is offset and difficult to maneuver.
- Plan should include train transportation service between Pasco and Tallahassee and Orlando (overdue).
- No Asbel Rd Extension in table of projects, but appears on the maps; it was funded and set for construction in 2020 – still true?

### *MOBILITY 2045 Adoption*

A public hearing was held in conjunction with the MPO Board meeting at the Historic Courthouse in Dade City on December 11, 2019. The citizen concern regarding the Ehren Cutoff was noted to the Board, and conversations with MPO staff have continued in an effort to identify appropriate strategies to address the concern. Thereafter, the MPO Board adopted the MOBILITY 2045 LRTP.

**Figure 6-28: Notice of Public Hearing to Adopt MOBILITY 2045**

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NOTICE OF PUBLIC HEARING TO ADOPT
MOBILITY 2045: COST AFFORDABLE LONG-RANGE
TRANSPORTATION PLAN
PASCO COUNTY METROPOLITAN PLANNING ORGANIZATION

The Pasco County Metropolitan Planning Organization (MPO) will hold a Public Hearing during the regularly scheduled meeting to review and consider adoption of the MOBILITY 2045: Pasco County Long Range Transportation Plan on December 11, 2019, at 10:00 am in the Dade City Historic Court House, 2nd Floor - Board Room, 37918 Meridian Avenue, Dade City, Florida, 33525. The MPO is responsible for developing a Long-Range Transportation Plan (LRTP) with a minimum of a 20-year horizon. The purpose of this notice is to provide an opportunity for public comments and input on the Long Range Transportation Plan before the plan is adopted in December, 2019.

In accordance with the MPO's Public Participation Plan and in compliance with Federal law - 23 CFR 450.316(b)(1)(i) and 339.175 (b) and (8) Florida Statutes, this Public Hearing provides for the last public opportunity to comment before approval by the MPO Board. Your feedback can directly affect transportation improvements and projects in Pasco County. Learn more about the Pasco 2045 Long Range Transportation Plan here: www.mobilitypasco.com or you may send an e-mail to: MPOcomments@pascocountyfl.net.

If you are a person who needs translation services, Pasco County MPO will take reasonable steps at no cost to you to allow participation in this proceeding. At least seven days prior to the meeting, please contact the MPO, West Pasco Government Center, 8731 Citizens Drive, New Port Richey, Florida 34654-5598. The MPO Board Room in Dade City is served by Pasco County Public Transportation (PCPT) Routes 30 and 31. To obtain bus schedules or further information, contact PCPT at (727) 834-3322 (West Pasco), (352) 521-4587 (East Pasco), or go online to the PCPT

Page 1 of 2

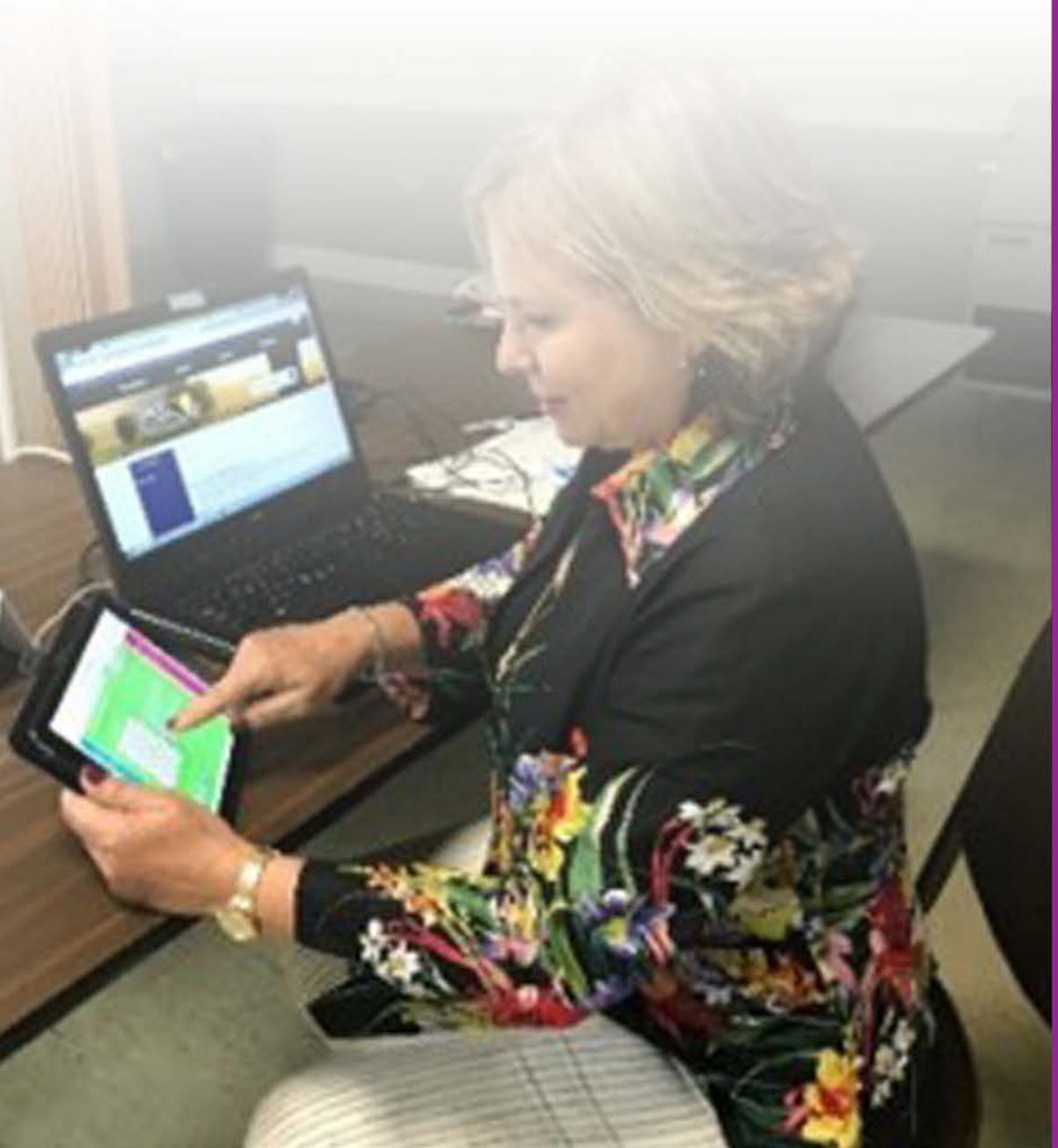
Additional technical documentation supporting Chapter 6 can be found in the associates standalone Appendix.

- Appendix 6-1 Final Public Participation Plan Update for 2018
- Appendix 6-2 MOBILITY 2045 Public Involvement Plan
- Appendix 6-3 Its Time Tampa Bay Scenario Performance
- Appendix 6-4 MetroQuest Results Summary June 2018
- Appendix 6-5 MetroQuest Summary for Hot Spots
- Appendix 6-6 MOBILITY 2045 LRTP Public Outreach Presentation (October 2019)
- Appendix 6-7 MOBILITY 2045 LRTP Presentation – MPO Committees (December 2019)
- Appendix 6-8 MOBILITY 2045 Adoption Presentation
- Appendix 6-9 Public Review Summary

MOBILITY 2045

Pasco County MPO
Transportation Plan

# Chapter 7
# Safety, ITS, and Technology



# Introduction

In addition to safety and security, which historically have been integral aspects of any major multimodal planning activity in Pasco County, technology has become an increasingly important planning consideration given the growth in potential technological applications for multimodal systems. When creating plans associated with the county's multimodal transportation network, safety, security, and technology impacts on users of all types of modes, including road users, bicyclists, and pedestrians, must be considered and addressed.

Safety and security considerations in multimodal transportation systems are key Federal requirements. Under current Federal law, the metropolitan planning process for a metropolitan planning area must provide for consideration of projects and strategies that will increase the safety and security of the transportation system for motorized and non-motorized users. In addition, review and analysis of the safety target areas (Emphasis Areas) identified at the State level by the Florida Strategic Highway Safety Plan (SHSP) also are required to ensure consistency in the planning process.

MOBILITY 2045 reviewed existing conditions related to these considerations, identified initiatives already in place to address them, and recommended enhanced strategies and effective countermeasures to address the issues and related impacts.

Florida MPOs also have been encouraged to address emerging topics, including technology advances, in the LRTP. Addressing these issues early potentially could minimize the level of effort needed to achieve future compliance.

# Transportation Safety

Providing and improving safety of the transportation system is crucial to the health and well-being of residents, visitors, and business travelers in Pasco County. As a federally-required component of the metropolitan transportation planning process, safety was analyzed using GIS and FDOT's Crash Analysis Reporting System (CARS).

Under the Federal Highway Safety Improvement Program (HSIP), five performance measures were established for evaluating safe traveling conditions on the highway system. These measures became effective on April 14, 2016, and were developed to consider the safety of motorists, bicyclists, and pedestrians. The goal of the HSIP is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, supported by five performance measures established under MAP-21 and reinforced through the FAST Act. Three measures (PM1, PM3, and PM 5) evaluate the total number of fatalities and serious injury crashes, and two (PM 2 and PM4) evaluate fatalities and serious injuries based on traffic volumes as a means of normalizing crash severity results against roadway conditions. Expressed as crashes per 100 million vehicle miles traveled (VMT), fatality and serious injury rates provide a basis for comparing crash severity conditions across varying geographic areas.

| | |
|---|---|
| PM 1 | **Number of fatalities** |
| PM 2 | **Rate of fatalities (measured against roadway traffic volumes)** |
| PM 3 | **Number of serious injuries** |
| PM 4 | **Rate of serious injuries (measured against roadway traffic volumes)** |
| PM 5 | **Number of non-motorized (bicycle and pedestrian) fatalities and serious injuries** |

In addition to reporting on the established performance measures, FDOT and the MPO are now responsible for establishing annually reported targets for each measure. As crash data from any given year may have extreme peaks or valleys, a rolling five-year average of data is used as the basis for evaluating crash patterns and trends.

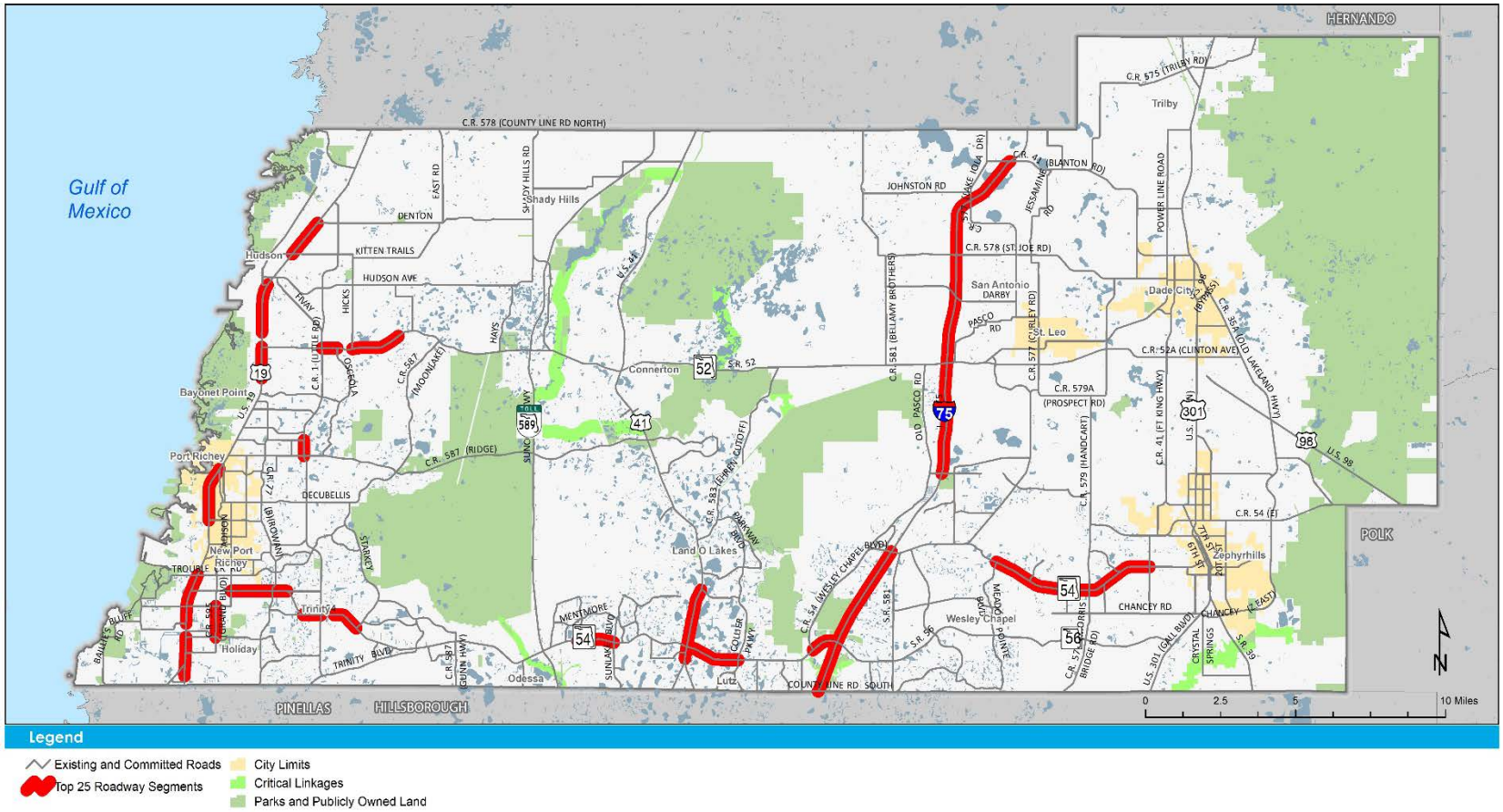
The visualizations and data analysis for MOBILITY 2045 used crash data for 2012–2016. After being aggregated and joined to traffic volume data using GIS, spatial analysis of total crashes and crash rates was used for reporting consistent with the Federal safety performance measures.

The top 25 road segments in Pasco County with the highest number fatal and severe injury crashes are primarily along major highways (Map 7-1). I-75, US-19, SR-52, and SR-54 all had segments within these top 25. These roadway segments rank towards the top in terms of total crashes as a function of higher volumes of traffic that travel along major corridors.

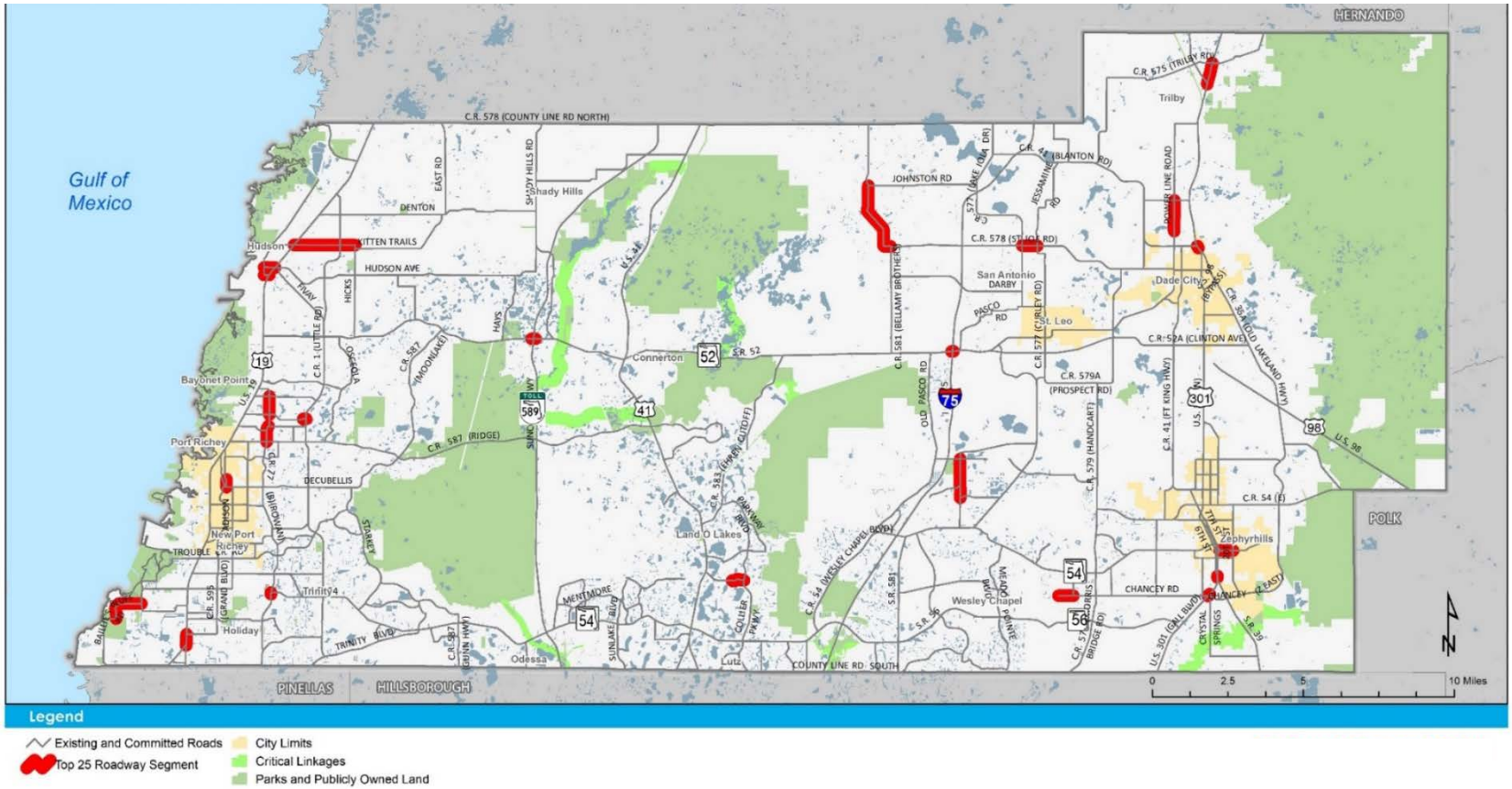
Map 7-2 illustrates the same analysis conducted for the rate of fatal and serious injury crashes normalized by traffic volumes. The top 25 road segments measured by rate of fatalities and serious injuries are much different than the top 25 segments based solely on crash frequency. This normalization of the data shows that the highest rate of fatalities and serious injuries occur primarily on County and local roadways with lower traffic volumes than State and interstate highways.

Crashes involving bicyclists and pedestrians for 2012–2016 were concentrated in western Pasco County, primarily along the US-19 corridor (Map 7-3). The higher population density of the US-19 corridor was a key factor in the number of crashes, as higher population densities are more likely to experience more bicycle and pedestrian activity. One roadway segment of note is Moog Road, previously identified as a focus corridor; its roadway section and surrounding land use patterns led to an unsafe environment for bicycles and pedestrians and is shown on Map 7-3 as a top crash corridor.

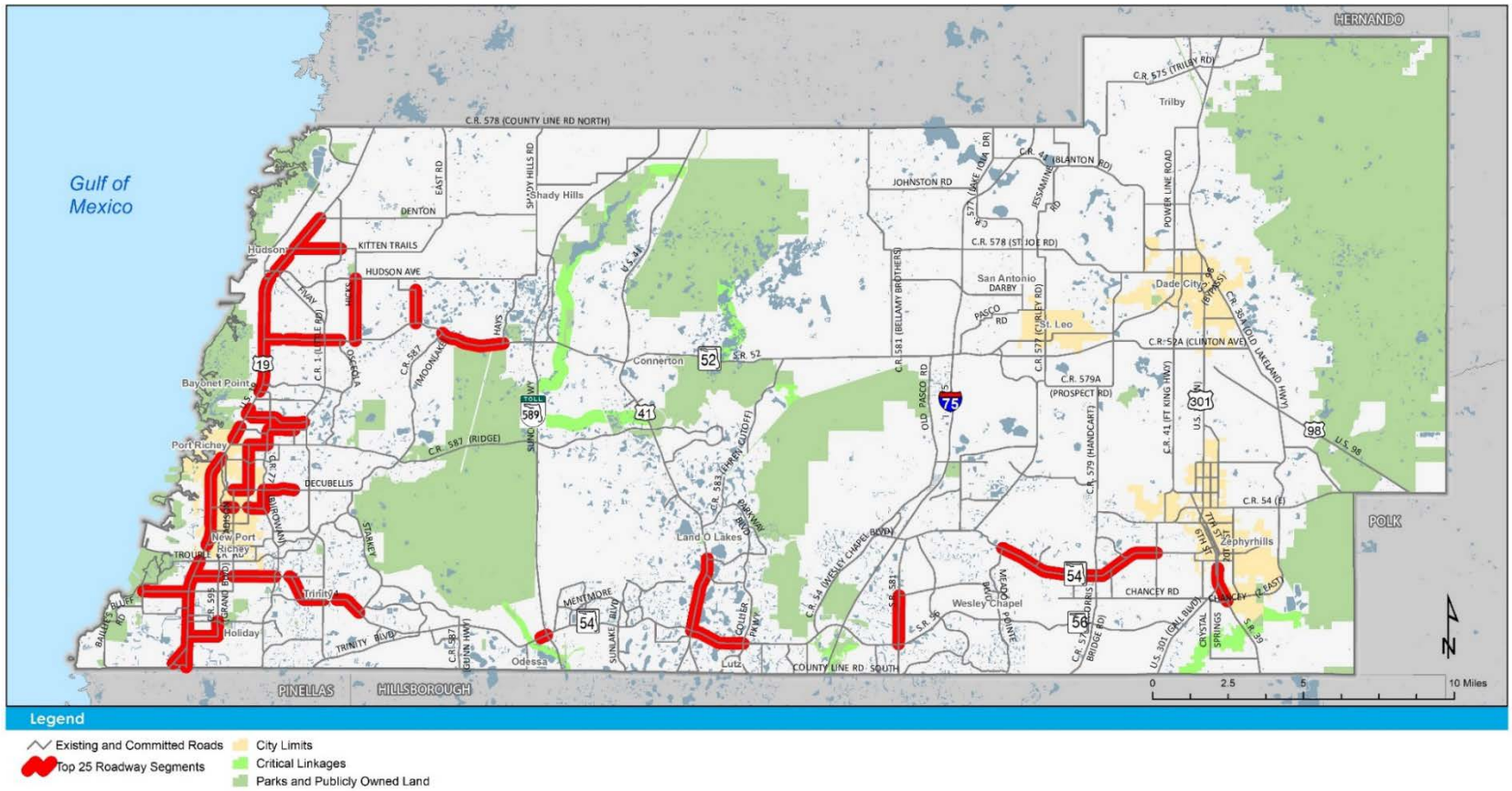
**Map 7-1: Pasco County Top 25 Roadway Segments by Total Serious Injury and Fatality Crashes**



**Map 7-2: Pasco County Top 25 Roadway Segments by Normalized Total Serious Injury and Fatality Crashes**

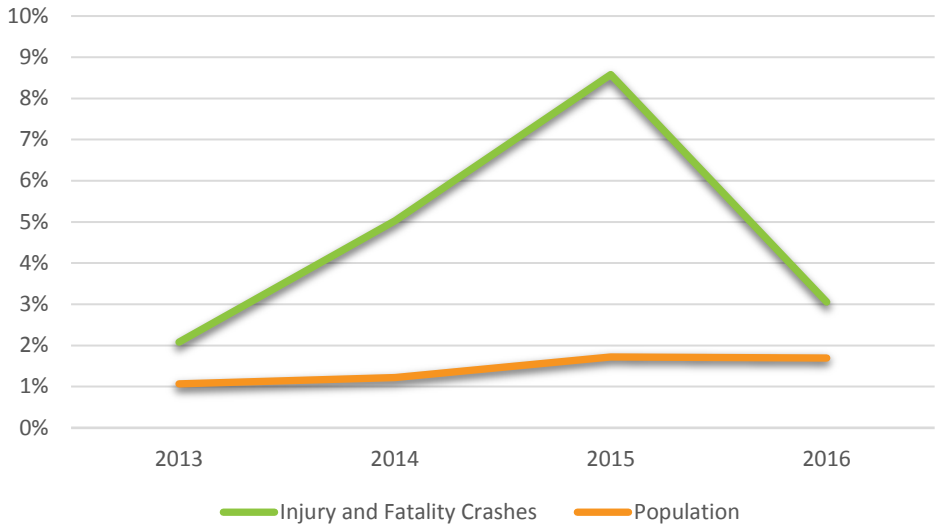


**Map 7-3: Pasco County Top 25 Roadway Segments by Total Bicycle and Pedestrian Crashes**



As the total population of Pasco County continues to rise, so does the number of crashes resulting in injury or fatality. However, population increase was not the primary cause for the increase in crashes, as the annual percentage growth of population was far below the total number of crashes, as shown in Figure 7-1.

**Figure 7-1: Injury and Fatality Crashes vs. Population Growth, 2013–2016**




*Source: BEBR and CARS*

Figure 7-2 summarizes the countywide distribution of crashes for 2012–2016 for each FDOT SHSP Emphasis Area. Nearly 3 of 10 crashes occur at an intersection, and more than 1 in 4 involves an at-risk driver. Although less than 10 percent of total crashes for 2012–2016 involved a vulnerable road user, Figure 7-3 shows that during the same time period vulnerable road users accounted from more than 20 percent of serious injuries and fatalities resulting from traffic crashes.

Additional observations from the crashes over the five-year period include the following:

- Lane departures are the only other crash factor that represents more than 10 percent of crashes.
- In addition to vulnerable road users, impaired driving is the only other SHSP Emphasis Area that had a noticeable increase in the share of fatalities and serious injuries compared with total crash statistics.

To address the serious nature of vulnerable road user fatalities and serious injuries, FDOT developed a Countywide Pedestrian and Bicycle Safety Action Plan (PBSAP) that targets focus corridors and intersections and includes variety of strategic action items to improve bicycle and pedestrian safety. Eight corridors and four intersections were identified as crash focus areas from this study.

**Figure 7-2: Crashes by Emphasis Area in Pasco County, 2012–2016**

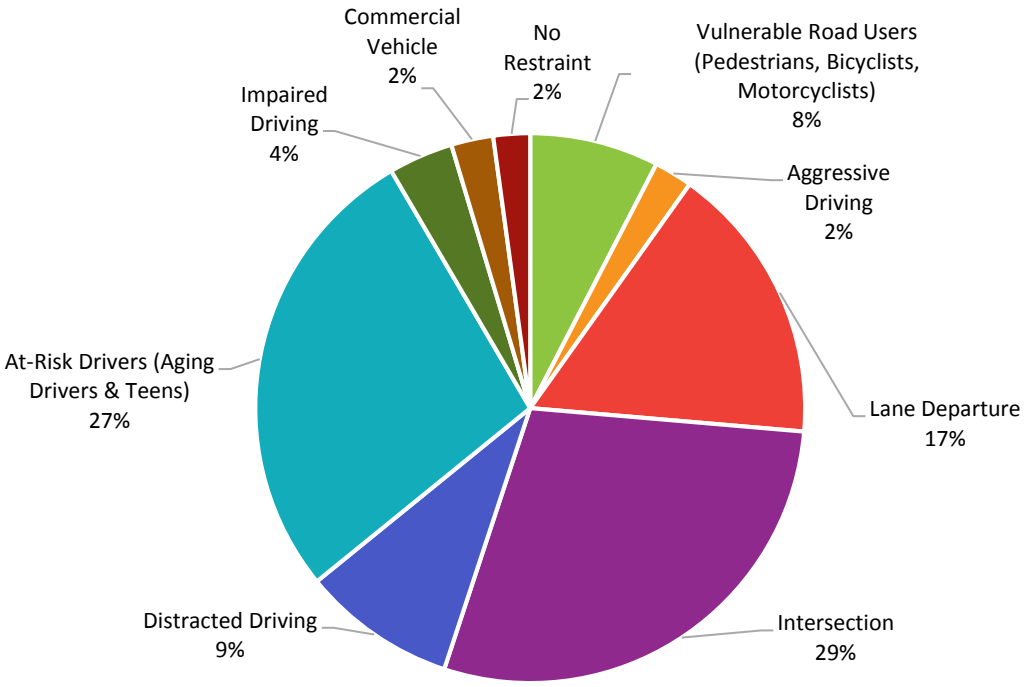
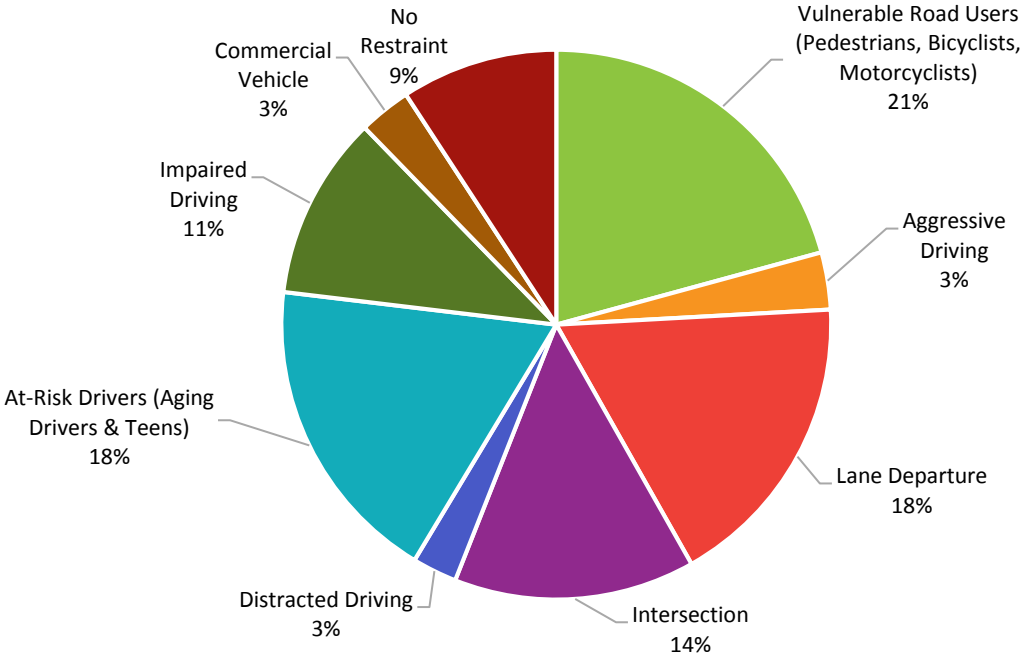



**Figure 7-3: Fatal Crashes by Emphasis Area in Pasco County, 2012–2016**



# ITS

ITS integrates advanced communication and electronic technology with transportation infrastructure and vehicles to enhance safety, mobility, and system efficiency. Various agencies oversee ITS architecture at the local, regional, and State levels, with the intent that they will be consistent with each other through coordination of stakeholders overseeing or contributing to them. These architectures serve as the platforms to provide ITS services that improve transportation outcomes. Stakeholders in the county coordinate via data exchanges among their ITS architecture and infrastructure components. For example, the two key ITS centers involved with operating roadways in Pasco County are the Pasco County Traffic Operations Center and the FDOT District 7 Tampa Bay SunGuide Center.

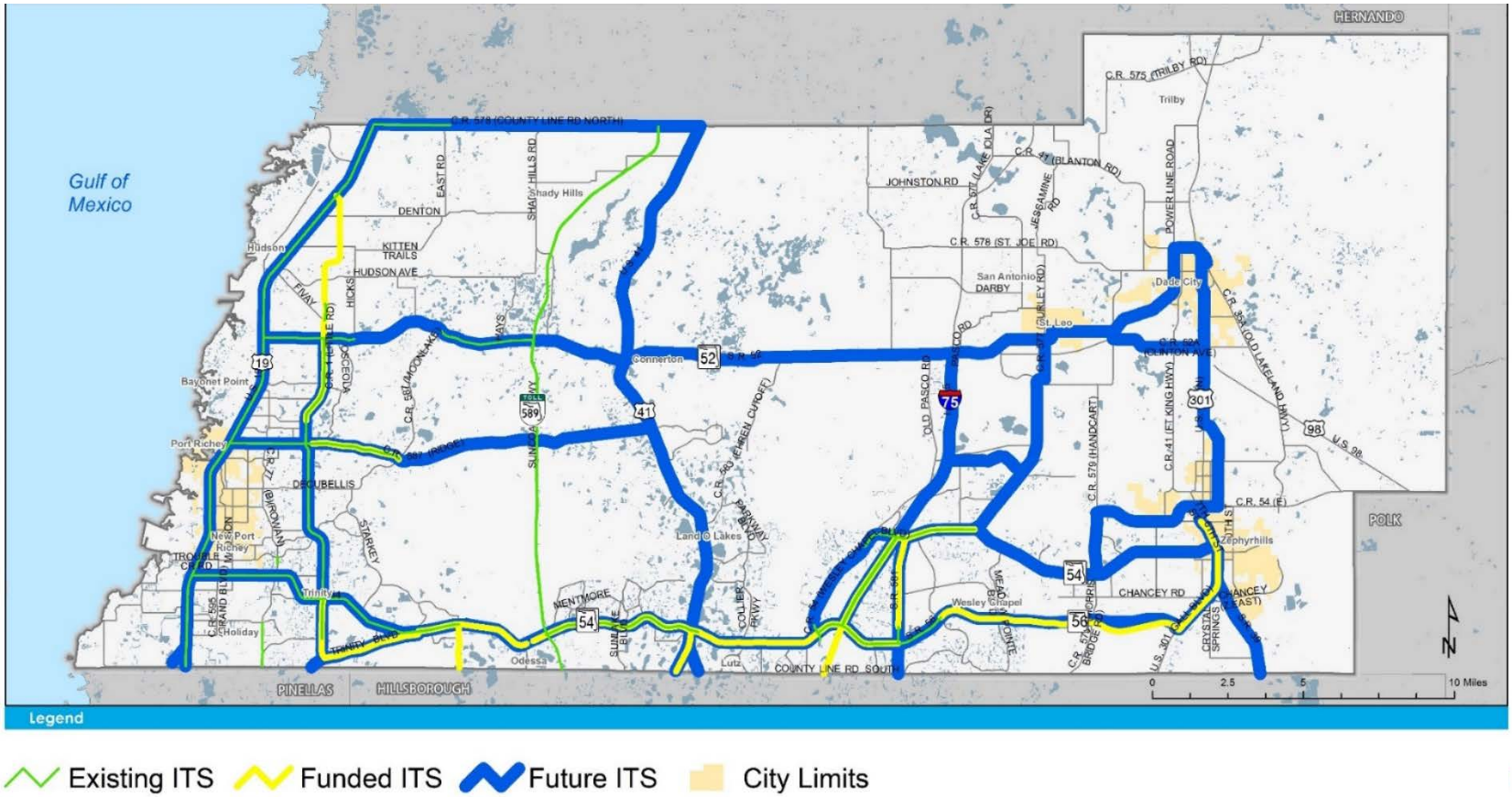
Table 7-1 provides a descriptive list of Pasco County and FDOT District 7 projects that will expand ITS connections and services. Map 7-4 shows the existing, funded, and potential future corridors with ITS infrastructure in Pasco County, including County and FDOT infrastructure.

**Table 7-1: Pasco County and FDOT District 7 ITS Architecture Projects**

| Agency | Project Name | Project Description |
|---|---|---|
| PCPT | Regional SmartCard Project | Single regional SmartCard for all transit agencies in region |
| FDOT District 7 | FDOT Dynamic Tolling | Enable dynamic tolling on express lanes in District 7; FDOT D7 SunGuide Center would calculate tolls based on traffic data and send to SunPass, where tolls posted to accounts |
| | FDOT Wrong-Way Driver Detection | More advanced version of wrong-way driver detection using Vehicle-to-Infrastructure (V2I) communication technologies |
| | Coast Guard Security Video | Installation of security equipment around Tampa Port (and potentially at bridges) to bring video from security equipment to ATMS |
| | FDOT Arterial DMS | Installation of Dynamic Message Signs (DMS) on arterials leading to highways |
| | FDOT Emergency Weather Conditions | Obtain emergency weather information from National Weather Service, provide condition dissemination through web and DMS |
| | FDOT Fog Detection System | District 1 deployment of fog detection system on I-4 to be operated by FDOT District 7 |
| | FDOT Port Project | Implementation of fiber connection to regional ports and Coast Guard; implement CCTV, DMS, CV HAR to provide information on interstate and connector traffic |
| | FDOT Wrong-Way Driver Detection | Detection of wrong-way drivers on limited access ramps |
| | Gateway Project | Development of Managed Lanes leading to I-275; includes open road tolling and ITS devices |
| | Tampa International Airport Expansion | Major expansion, addition of DMS, interface with ATMS |

*Source: FDOT, http://www.consystec.com/florida/d7/web/projectsstake.htm*

**Map 7-4: Pasco County Corridors with Existing and Future ITS**



# Technology

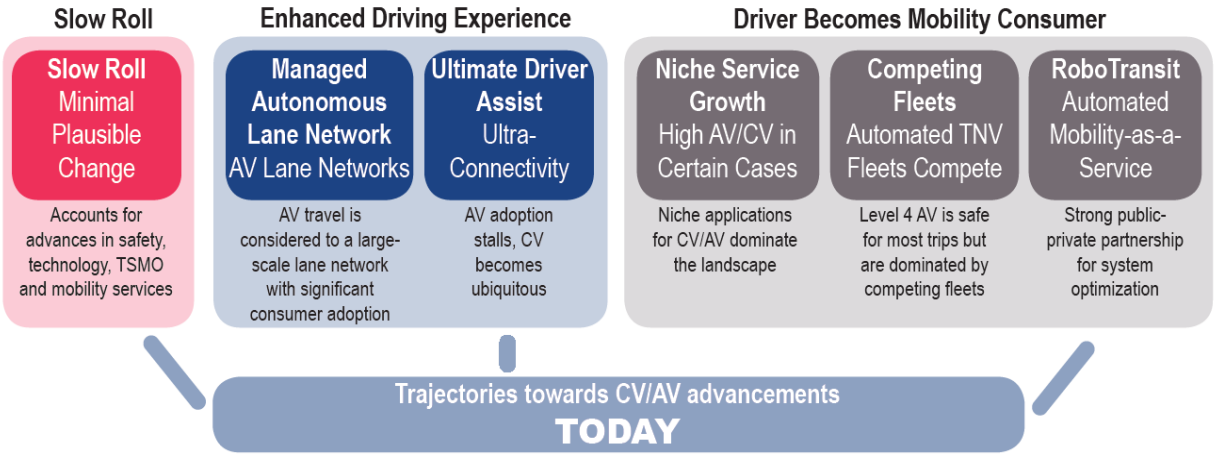
## ACES Overview

Incorporating technology considerations into long-range transportation planning is more vital than ever given emerging technologies that have the potential to completely transform prevailing transportation practices. Yet there is great uncertainty, with outcomes depending on a variety of factors such as the types and rate of technology adoption and market penetration. Emerging transportation technologies in Florida are referred to as ACES:

- **Automated** – vehicles guiding themselves with little or no input; minimal effects are anticipated with lower levels of automation, yet profound effects are possible with the highest levels of automation where the human occupant is removed from the driving process.
- **Connected** – devices linking vehicles and transportation infrastructure for improved safety and efficiency.
- **Electric** – vehicles using one or more electric motors for propulsion.
- **Shared-use** – vehicles used but not necessarily owned by more than one person or organization.

Although these technologies are distinct, communities will likely adopt them to some degree in a combination. As a result, one effort of long-range planning with regards to these technologies is developing locally-tailored scenarios. FHWA has developed six scenarios based on a future year of 2035 as starting points for input and local scenarios for the purposes of LRTPs (Figure 7-4). There are gains and negative impacts to consider in the adoption of these different technologies. Figure 7-5 broadly summarizes benefits by driving externalities with a relative comparison among the different technology types. Safety emerges as a key benefit in adopting these technologies, echoed by several tenets of an ITE position paper on connected/automated vehicle (CV/AV) technology.[2]

**Figure 7-4: FHWA 2035 CV/AV Scenarios**




*Source: FDOT (September 2018), Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use Vehicles.*

[2] Institute of Transportation Engineers (December 4, 2018), ITE Statement on Connected and Automated Vehicles.

**Figure 7-5: Potential Benefits of ACES Technologies**

*Table 2: Potential Benefits*

| Driving Externality | Connectivity (Full V2X) | Autonomy* (L4, L5) | Shared Autonomy (L4, L5) ** | Electrification *** |
|---|---|---|---|---|
| Safety | ● | ● | ● | ○ |
| Congestion | ● | ● | ● | ○ |
| Emissions | ● | ○ | ○ | ● |
| Land Use | ○ | ● | ● | ○ |
| Mobility | ○ | ● | ● | ○ |

*Weakest Benefits / No Impact*
*Some Expected Benefits*
*Strong Benefits*
*Uncertain Impact*

*Autonomy is defined for this purpose as individually owned vehicle.
**Shared Autonomous Vehicles (SAV) are on-demand self-driving vehicles supporting shared rides as part of a privately or publicly managed fleet.
***While not a focus of this NCHRP research, the team provides assumptions of potential benefits of electrification based on known literature.

*Source: FDOT Office of Policy Planning (September 2018), Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use Vehicles.*

A more comprehensive overview of potential impacts of these technologies are listed by theme below, based on a review of relevant ACES research and documentation;[3] note that these impacts are potential, given the uncertainty of how technologies will evolve.

### *Safety Impacts*

- Provide enhanced warning notifications and may reduce crash rate due to human error, although partial automation may increase risk due to driver complacency; concerns about safety in mixed-traffic scenarios or where there are non-CV/AV vehicles such as motorcycles. The Florida Connected Vehicle Program Initiative of FDOT TSM&O Office identifies roadway hazards and alerts drivers. Technologies include:
    - Emergency Vehicle Preemption
    - Freight Signal Priority
    - Global Positioning System Navigation
    - On-Board Units
    - Roadside Units
    - Signal Phase and Timing (SPaT)
    - Transit Signal Priority
    - Vehicle Sensors
    - Wireless Communications

[3] Ben Walker, HNTB (January 28, 2019), Preparing for ACES: Automated/Electric/Connected/Shared-Use Vehicles, TransForum conference presentation, Venice, FL; FDOT (July 18, 2018), Future Mobility Research Synthesis, prepared by RSG; FDOT Office of Policy Planning (September 2018), Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use Vehicles; Schaller Consulting (July 25, 2018), The New Automobility: Lyft, Uber and the Future of American Cities.

- May increase safety for cyclists and pedestrians yet could also make the urban transportation system more complex and harder to navigate for these users.
- May allow for more space for other land uses and walking/cycling infrastructure if vehicle space needs are reduced with emerging technologies (due to accuracy, efficiency, and reduced parking needs).

### *Travel Demand Impacts*

- May reduce time or eliminate first/last mile trips to get to/from the primary mode of transport (e.g., walking to parked car or transit) if more door-to-door service is provided.
- Acceptance of longer trip lengths due to ability to conduct activities other than driving while in transit.
- Increased automation or shared-use may increase car trips due to people who previously could not drive using automated vehicles and a potential shift away from traditional transit use or active transportation.
- May increase zero-occupancy trips.
- Opportunities for higher vehicle occupancy with shared-use can reduce congestion, yet also may involve more zero-occupancy trips; trip-chaining and algorithms could reduce zero-occupancy trips in shared-use vehicles but can reduce door-to-door service.
- Lower costs overall (higher use of capital investment and lower variable costs such as insurance), may lead to more discretionary trips.
- Shift in how transit is defined with rise of microtransit.
- Telecommuting and e-commerce may replace trips.

### *Roadway System and Infrastructure*

- Dedicated AV/CV-only lanes allow coordinated speed control on limited-access highways and arterials.
- Increased roadway capacity due to reduced space and safety buffer needs, reduced vehicle size, balancing of roadway use across routes and times.
- Need for highly visible pavement markings and signs.
- Need for curb space, although increased ability for off-hours deliveries with delivery lockers may temper need for loading zones, emergence of special automated vehicle areas in downtown or multi-use districts.
- May increase ability of people to “age in place,” affecting road and streetscape design needs to accommodate older populations (curbside loading zone design, placement of benches, etc.).
- Eventual possibility of fully connected and autonomous vehicles not requiring signals and stop signs.
- Potential changes in need for ITS infrastructure; smartphones and vehicle connections to the cloud using existing 4G wireless broadband technology will allow for connected vehicle

applications; advanced traffic signal control systems use cloud-sourced vehicle location data and smartphone detection equipment to manage congestion.

- Need for more charging infrastructure for electric vehicles, with implications for power generation and distribution.

### *Transit System and Active Transportation Impacts*

- Reduction in transit use that may result in shared-use vehicles replacing transit, particularly more diffuse transit service and active transportation; this would likely cause transit to focus on high-quality major corridors with potential for increased transit priority corridors. Shared-use vehicles have been used in partnership with transit in first/last mile connections, night and weekend service, underserved areas, and ADA paratransit. Also has led to more integration of payment and opportunities for further coordination as more intercity transit options come online.
- Need to redefine transit as providing shared mobility instead of just traditional transit.

### *Funding and Financing Impacts*

- Reduction in fuel tax revenues due to electric vehicles.
- Increased reliance on alternative funding sources, such as vehicle registration fees, which may be impacted if vehicle ownership rates change due to technologies such as shared-use vehicles, and VMT-based fees.
- Increased safety and less influence of human error may reduce revenue from traffic violations.
- Reduced need for parking may reduce parking revenues.
- Incentives offered to promote ACES, such as EV incentive programs.
- Vehicles may be more expensive to repair.
- Reduced crash costs.
- With changes in transit use, decline in support for funding of traditional public transit possible.

### *Equity and Engagement Impacts*

- Expanded transportation options for persons who cannot or do not drive.
- Lower access of underserved communities to transportation due to inability to access new technologies at rates of other communities and reduction of existing services (e.g., traditional bus service) with rise of new services.
- Access to new services affected by access to supporting technologies, such as smart phones and internet-accessible banking and credit cards.
- Accommodation of different abilities.
- Lower access in rural communities due to lack of density and cost barriers.

- VMT-based fees as an alternative funding source may affect populations that may have to drive more currently for affordability reasons (living further away from core), yet it is unclear how land/housing costs further away from urban cores will be affected by new technologies.
- Government action needed to ensure equity with application of new technologies.
- Remote parking locations, perhaps disproportionate in marginalized communities.
- Automation of jobs related to driving.
- More complex engagement , requiring additional resources and technical knowledge to communicate.

### *Land Use Impacts*

- Residential location may be affected, as driver can be conducting activities other than driving in autonomous vehicles; many other factors affect location choice. Residents in suburbs and exurbs may prefer owning a personal connected/autonomous vehicle, which would undermine collective benefits of shared-use.
- Increased e-commerce and delivery pattern shifts affect location of brick-and-mortar stores.
- Rise in use of delivery lockers; freight vehicles may become “lockers on wheels” to allow for movement of coded lockers and preparation of deliveries while vehicle is in motion.

### *Parking Impacts*

- Reduced parking demand and repurposing of garages.
- Parking in more remote locations.
- Need for vehicle maintenance/upkeep sites for shared-use vehicles; might relate to current private ownership vehicle maintenance sites.

### *Efficiency Impacts*

- Potential for fuel efficiency with more accurate and coordinated driving (e.g., freight, near signals).
- Potential for reduced energy use and emissions with higher-occupancy vehicles in shared-use (although unclear if offset by zero-occupancy trips).

### *Security Impacts*

- Changed/increased data collection, storage, and security needs.
- Potential cybersecurity failures (e.g., systems get hacked).
- Infrastructure resilient to hazards; shared-use may complicate evacuation efforts. Participation of vehicle owners in evacuation processes may need to be mandated.

## Legislative & Agency Response

States vary in terms of whether they have adopted or are considering legislation regarding autonomous vehicles, and rules vary among states that have passed these laws.[4] Federal agencies such as USDOT and Congress have taken steps to move towards more standardized guidance and requirements to address this technology in transportation. In 2016, USDOT released non-binding performance guidance on autonomous vehicles.[5] In 2019, it released *Automated Vehicles 3.0: Preparing for the Future of Transportation*, which includes:

- Principles for guiding the Federal approach to shaping policy for automated vehicles.
- Roles in engaging with automation at the Federal level; at the State, local, and tribal government levels; and in the private sector.
- Implementation strategies moving forward.

Key principles guiding U.S. DOT's approach include:

- Prioritizing safety
- Remaining technology neutral
- Modernizing regulations
- Encouraging a consistent regulatory and operational environment
- Preparing proactively for automation
- Protecting and enhancing mobility choice freedoms (including the freedom to drive one's own vehicle).

Although the document does not explicitly name a specific MPO role, many initiatives geared towards more localized entities may apply to the efforts of the MPO. These initiatives relate to the following themes:

- Public engagement and education
- Research to understand impacts of automation, remove barriers, and address market failures and public needs
- Identifying data needs and opportunities for data exchange
- Scenario development
- Assessment of roadway readiness and support for piloting/safety testing
- Improving organizational capacity and expertise related to automation.

Initiatives related to other roles will contextualize these efforts, such as the development of policy/regulatory guidance to remove barriers to automation and voluntary standards and safety assessments, including those related to vehicle design.

In addition to the USDOT guidelines, Federal legislation is also under consideration to influence the direction of autonomous vehicle technologies. A recent policy brief summarizes some of the implications

[4] John Paul MacDuffie, PhD (May 2018), The Policy Trajectories of Autonomous Vehicles, University of Pennsylvania Penn Wharton Public Policy Initiative, Issue Brief, Vol. 6, No. 4.
[5] USDOT (September 2016), Federal Automated Vehicles Policy, https://www.transportation.gov/AV/federal-automated-vehicles-policy-september-2016.

of H.R. 3388 (SELF-DRIVE Act) and policy trajectories of autonomous vehicles.[6] The SELF-DRIVE Act in its latest form would include provisions for:

- A uniform standard for technology and safety
- Prohibiting states from blocking use of automated vehicles without human controls within their borders
- Prohibiting states from setting rules on automated vehicle production and testing standards
- Exemption of self-driving car manufacturers from existing safety standards up to a certain number of cars in the first year
- Requiring self-driving car manufacturers to demonstrate the safety of their vehicles.

Although some observers support the safety provisions, others are concerned at the pre-emption of State authority to set safety standards without clear regulation at the federal level to fill the gap.

Additional policy considerations summarized below:

- "Geo-fencing" may be particularly relevant to local and regional transportation planning efforts.
- Federal guidance may support an approach to increased automation that includes levels at which the automated system monitors the driving environment, but the human driver is still "in the loop" to take over driving in certain situations; some argue that having drivers come back into control is too risky, which supports an increase in automation from vehicles where the human driver is predominantly monitoring the driving environment straight to full-blown automation.
- The possibility of enforcing a single standard for performance evaluation (e.g., a "driver's license" for automated vehicles) and ethical dilemmas.
- How to invest in infrastructure; some argue that "smart" infrastructure is necessary for the success of automated vehicles, while some have moved forward with automated vehicles that are not reliant on direct communication with other cars or upgraded infrastructure.
- Allowance by local jurisdictions for testing and expansion of automated vehicles, in conjunction with meeting local priorities (e.g., expansion of green vehicles); "geo-fencing," the ability to limit the activity of automated vehicles to certain geographic areas mapped in detail, is an aspect of this method of increasing testing and expansion of this technology.
- How liability will shift with the emergence of automated vehicles and the need for expanded public and supporting private insurance.

The American Planning Association provides additional policy guidance in its PAS Report 592 that provides a starting point for discussion in regional and local jurisdictions[7], providing a basis for the summary below. This guidance responds to many of the issues and opportunities posed by emerging technologies discussed earlier in this section.

[6] *Ibid*.
[7] Jeremy Crute, William Riggs, AICP, Timothy S. Chapin, and Lindsay Stevens, AICP, American Planning Association (September 2018), PAS Report 592: Planning for Autonomous Mobility.

- **General Planning**
  - Quality planning that adheres to foundational goals and principles (e.g., protecting environmentally-sensitive land, providing a range of transportation and housing options, etc.) remains highly important with the emergence of autonomous mobility technology; proactive planning with the ability to regularly re-assess for changing circumstances allows for these principles to shape outcomes instead of the technology itself.
  - Integrate autonomous vehicle discussions into planning and public engagement processes, including use of visioning exercises and generation of alternative scenarios to achieve the vision, identify and harness benefits, and identify and address issues.
  - Explore opportunities to assess and facilitate data sharing behavior (e.g., between Transportation Network Companies that provide shared mobility, planners, and policy makers).
- **Land Use**
  - Re-evaluate land use regulations and regional growth management strategies to promote compact development and limit the potential for increased sprawl from autonomous vehicle use. Plan for increased density and intensity to promote shared mobility, which is more viable in these environments.
  - Address parking standards and requirements to address potential reductions in amount needed, relocation of parking to more peripheral areas, and revised building and engineering codes for garage design better suited for autonomous vehicles; provide incentives to redeveloped what may become underutilized parking facilities for higher and better uses. During the transition to autonomous vehicles, there can be a mix of on-site parking for human-driven vehicles and remote parking for autonomous vehicles.
- **Modal Considerations and Right-of-Way Planning**
  - Incorporate automated vehicles into transportation demand models and planning efforts.
  - Transition to LOS standards that include pedestrian, bicycle, and transit service; eventually transition to VMT-based models.
  - Increase TDM efforts and link these efforts to shared and autonomous mobility; enhance TDM programs to offer balanced transportation choices, including support of active transportation.
  - In view of the opportunity to “right-size” roads to a human scale with the reduced space needs of autonomous vehicles, re-evaluate use of the right-of-way, including space that may be freed up. A transition to autonomous vehicle use will likely include separated lanes for these vehicles to address the mix of human-driven and autonomous vehicles.
  - Transition additional roadway capacity to use by bicycles, pedestrians, transit, or shared vehicles.
  - Create a modal hierarchy for roadway space and modes; adopt pedestrian- and bicycle-friendly planning, safety, and design standards, building on Complete Streets best practices and integrating innovative approaches to transportation engineering. These efforts can include developing ways for pedestrians to safely cross free-flowing automated vehicle intersections. Explore car-free downtowns.

  - Establish locations, updated design standards, and management schemes for pick-up/drop-off areas and lanes; these can be put in place during the transition to autonomous vehicles.
  - Invest in basic infrastructure with the aim of consistency; it may be best to wait on "smart" infrastructure upgrades until the degree of need of infrastructure for autonomous vehicles is clearer (for instance, it is possible that eventually these vehicles may not require any infrastructure).
  - Explore creative and innovative use of right-of-way space.

- **Transit**
  - Pursue opportunities to apply autonomous technologies to transit, including pilot projects such as autonomous BRT and customized vehicles tailored to different roles.

- **Freight**
  - Evaluate opportunities to integrate automation into freight and plan for impacts, including topics such as regulating "platooning" (caravans of autonomous trucks), adjusting land use at the periphery of cities to adjust to new logistics and distribution needs, and exploring local freight scenarios and autonomous delivery systems.

- **Equity**
  - Include considerations for equitable access to shared mobility, as shared mobility may be concentrated in denser urban areas, increasing the gap between the high-income populations in the urban area and low income urban and rural populations.
  - Maintain robust transit service and explore becoming an autonomous mobility provider to ensure access.
  - Establish access standards for Transportation Network Companies and fleets.

## Pasco County Opportunities

Although the timeframe and degree of uptake of ACES technologies are uncertain, both generally and within the local Pasco County context, several initiatives are currently underway in the county that may inform what scenarios are more likely than others. These initiatives relate to current plans around technology and land use and include the Connected City, Mixed-Use Trip Reductions Measures (MUTRM), Market Areas, and ITS projects.

### *Connected City*

In April 2015, the Florida legislature established Pasco County as a pilot for the Connected City program (F.S. 163.3246(14)), and the Department of Economic Opportunity certified a 10-year pilot program (DEO-15-102); planning principles for the Connected City are laid out in its Comprehensive Plan Amendment document.[8] Principles relate to the promotion of advanced technology and the creation of more compact, mixed-use, walkable spaces. For example, the first planning principle aims to "Promote the use of advanced technology for economic development and the improved quality-of-life for current and future residents, business owners, and workforce members." To this end, the Connected City

[8] Pasco County, FL (February 7, 2017), Connected City Comprehensive Plan Amendment, prepared by Heidt Design.

program includes the provision of infrastructure to support Gigabit Technology. This level of data transfer may support ACES technologies, particularly connected vehicles that may be able to use these communication networks. Additionally, the Connected City has wide paths to accommodate electric and autonomous vehicles.[9] More generally, promoting ACES overall may align with these aims in showcasing the most cutting-edge technologies, which it is hoped will stimulate economic development, particularly given that the area hopes to attract high-tech companies.

Technology promotion should also consider the planning principles supporting compact, mixed-use, walkable spaces, such as the following:

- Put people first – includes prioritizing people's movement over that of the automobile.
- Encourage flexibility and promote a mix of uses – includes providing opportunities not only for shorter trips, but also non-vehicle trips such as walking, biking, and transit.
- Encourage alternative transportation modes for multiple travel options – may include walking, biking, transit, autonomous vehicles, and neighborhood vehicles.
- Create communities that support a healthy lifestyle – includes opportunities for walking and biking.

It will be important to evaluate how new transportation methods will impact walking and biking, which are key to several of the Connected City principles listed above. As noted earlier, ACES technologies may increase vehicle trips by replacing transit or active transportation trips; they may also create a more complicated built environment for those engaging in active transportation. Alternatively, it may be possible that the use of shared and autonomous vehicles will complement active transportation in certain circumstances, depending on pricing, trip lengths, and relative comfort/convenience of modes. Shared and autonomous vehicles may also reduce parking needs or allow for relocation of parking, which may enhance walkability. Regarding transit trips, a refined definition of transit may be helpful in merging these technology and walkability aims; traditional transit may focus more on a specific high-quality corridor, while new types of transit may take hold, such as shared-use vehicles including neighborhood electric vehicles.

In comparing these factors to the FHWA scenarios shown in Figure 7-4, a few scenarios begin to stand out as conceivable in the Connected City. The high-quality Gigabit Technology may facilitate connected vehicles, as in the Ultra-Connected scenario. Given the emphasis on technology as an economic development tool, a more comprehensive and robust application of ACES technologies might be desirable, such as with the RoboTransit scenario. The shared-use vehicle aspects of this scenario and others in the Driver Becomes Mobility Consumer category may be able to complement, rather than undermine, walkability aims. In any case, these scenarios will also have to consider impacts on equity and affordability.

[9] Laura Coffey (March 1, 2019), How the Nation's First Connected City Found Its Home in Pasco County, *Tampa Bay Business Journal.*

### *Additional Compact Land Use Opportunities*

In addition to Connected City, there are regulatory provisions and incentives to promote compact land uses with less of an explicit technology focus. These include Mixed Use Trip Reductions Measures (MUTRMs) and certain provisions associated with the Market Areas.

MUTRMs provide an optional land development regulatory procedure to allow for a higher vehicle-to-capacity ratio when preparing a traffic analysis for a development project or a lowered mobility fee if certain measures are taken to promote connected, mixed-use, and compact development.

Pasco County also has five major sub-areas, called Market Districts, to distinguish key growth and development characteristics of each area of the community. Certain urban districts, such as the West Market Area also known as The Harbors, are promoting compact, walkable, and mixed-use development.

These areas may provide multimodal opportunities that could benefit from integration of ACES technologies, particularly shared-use vehicles and new forms of transit as shown in the Driver Becomes Mobility Consumer scenario (Figure 7-4) or, at the very least, more moderate safety improvements in the Slow Roll scenario. There still will be a need to account for many of the same considerations of whether new technologies will ultimately aid non-vehicle transportation or undermine it, as noted earlier.

### *ITS Projects*

The ITS investments coming online in Pasco County (Map 3-1) provide potential opportunities to further connected vehicle technologies in addition to typical transportation management aims, such as signal coordination.

# Security

## Overview

Federal mandates continue to require security as a consideration in LRTPs. The planning process should provide for consideration and implementation of projects, strategies, and services that will increase the security of the transportation system for motorized and non-motorized users. Security goes beyond safety and includes planning to prevent, manage, or respond to threats of a region and its transportation system and users.

USDOT defines transportation system security as freedom from intentional harm and tampering that affects both motorized and non-motorized travelers and may also include natural disasters. Types of security hazards span a broad range, including environmental hazards, infrastructure failures, terrorism, and technological failures and threats, among others. Pasco County is particularly vulnerable to environmental hazards such as hurricanes, wildfires, floods, and tornadoes/severe weather, and the risks associated with these hazards may increase in the future due to climate change. Cybersecurity will also increase in importance as more emerging technologies become operational.

## Federal Resources

The U.S. Department of Homeland Security (DHS) is the primary executive agency overseeing security at the Federal level and includes key sub-agencies that oversee topics and programs particularly relevant for LRTP security considerations:

- **Cybersecurity and Infrastructure Security Agency** – created in 2018, highlights the increased emphasis on cybersecurity, which is of growing importance with the emergence of new technologies.
- **Federal Emergency Management Agency (FEMA)** – oversees the Public Assistance Program in the aftermath of major disasters or emergencies.
- **U.S. Coast Guard** – responsible for waterway and maritime security and regulation of hazardous materials shipping and response to pollution events such as oil spills.
- **Transportation Security Administration (TSA)** – oversees security of transportation systems, including airports and mass transit and passenger railroad.

DHS also oversees the Urban Areas Security Initiative (UASI) program, which focuses on enhancing regional security preparedness in major metropolitan areas. Despite a downsizing of urban areas eligible to apply for funding, the Tampa UASI District, which includes Pasco and eight neighboring counties, remained eligible as of FY 2018. This district was established to coordinate with the Florida Division of Emergency Management to expand regional collaboration and develop integrated regional systems for prevention, protection, response, and recovery. FY 2018 program guidelines indicate the following areas of improvement for core capabilities:

- Cybersecurity
- Infrastructure Systems
- Economic Recovery
- Housing
- Supply Chain Integrity and Security
- Natural and Cultural Resources
- Risk Management for Protection Programs and Activities.

The guidelines also include a new requirement for a cybersecurity investment justification, again highlighting an emphasis on cybersecurity.

USDOT also provides resources that support security efforts. Notably, FHWA awarded a Resilience and Durability in Extreme Weather grant to the Hillsborough MPO in collaboration with the Pinellas MPO, Pasco MPO, Tampa Bay Regional Planning Council, and FDOT District 7 that funded a pilot project to meet new Federal mandates that LRTPs work on "improving the resiliency and reliability of the transportation system and reducing or mitigating the stormwater impacts of surface transportation," ultimately informing updates for three MPOs and the regional LRTP. Main components of the project include a vulnerability and asset risk assessment, identification of critical links, development of adaptation and mitigation strategies, and strategies to include findings in the decision-making process.

## Local Emergency Preparedness

Local governments are critical entities in planning for local emergency preparedness and must develop hazard mitigation plans to be eligible for Federal funds through the Hazard Mitigation Grant Program (required by FEMA under 44 CFR Part 201). Pasco County has a Comprehensive Emergency Management Plan and a Local Mitigation Strategy that outline information for response to emergency situations and mitigation against hazards. These documents also include risk assessments for specific hazards and other background analysis and information. The environmental hazards with moderate to high probability identified in these two plans include:

- Hurricanes and coastal/severe storms
- Flooding
- Coastal and riverine erosion
- Sinkholes
- Tornadoes/severe weather
- Wildfires
- Lightning
- Droughts/heat waves
- Winter storms/freezes

Note that the risks and impacts of many of these hazards will be increased by the effects of climate change. An important consideration in this regard is sea-level rise, which can affect coastal flooding and storm surges. Figure 7-6 shows areas that would be inundated with 5 and 10 feet of sea-level rise.

The County continues to actively coordinate its responses to emergencies with local, regional, and federal agencies. It operates the 9-1-1 system to assist in this coordination and to serve the local communities/agencies with emergency communication services and coordinates with the Florida emergency management "all-hazards" program on domestic security and natural and technology hazards.

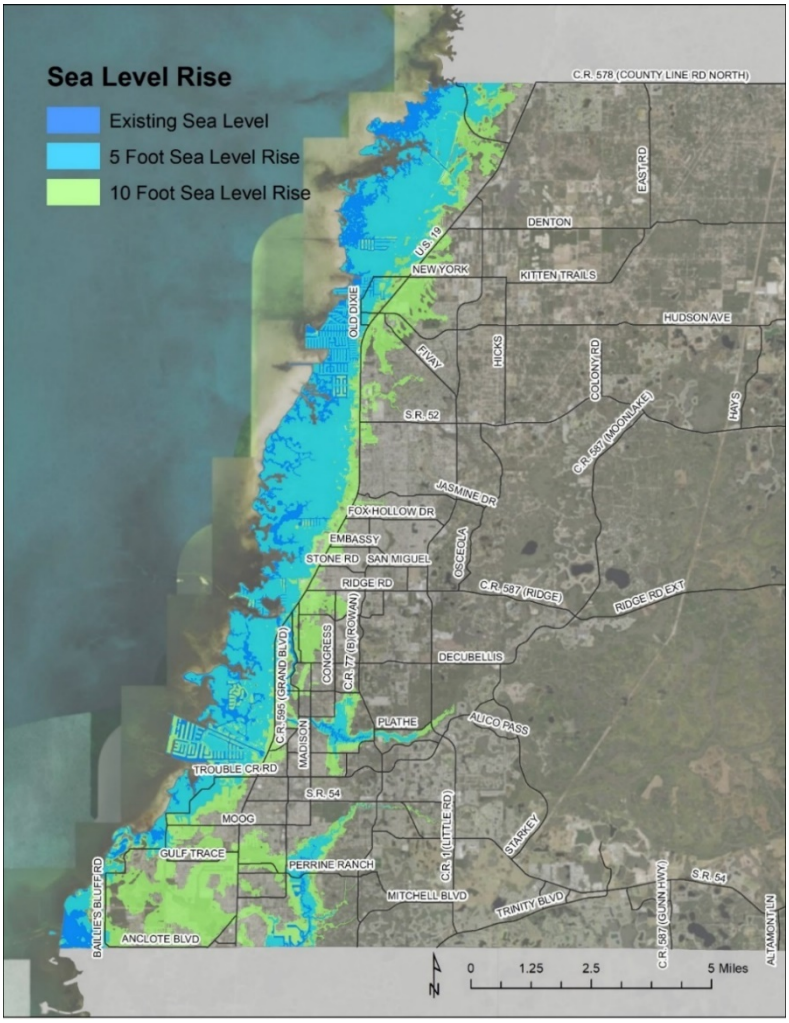


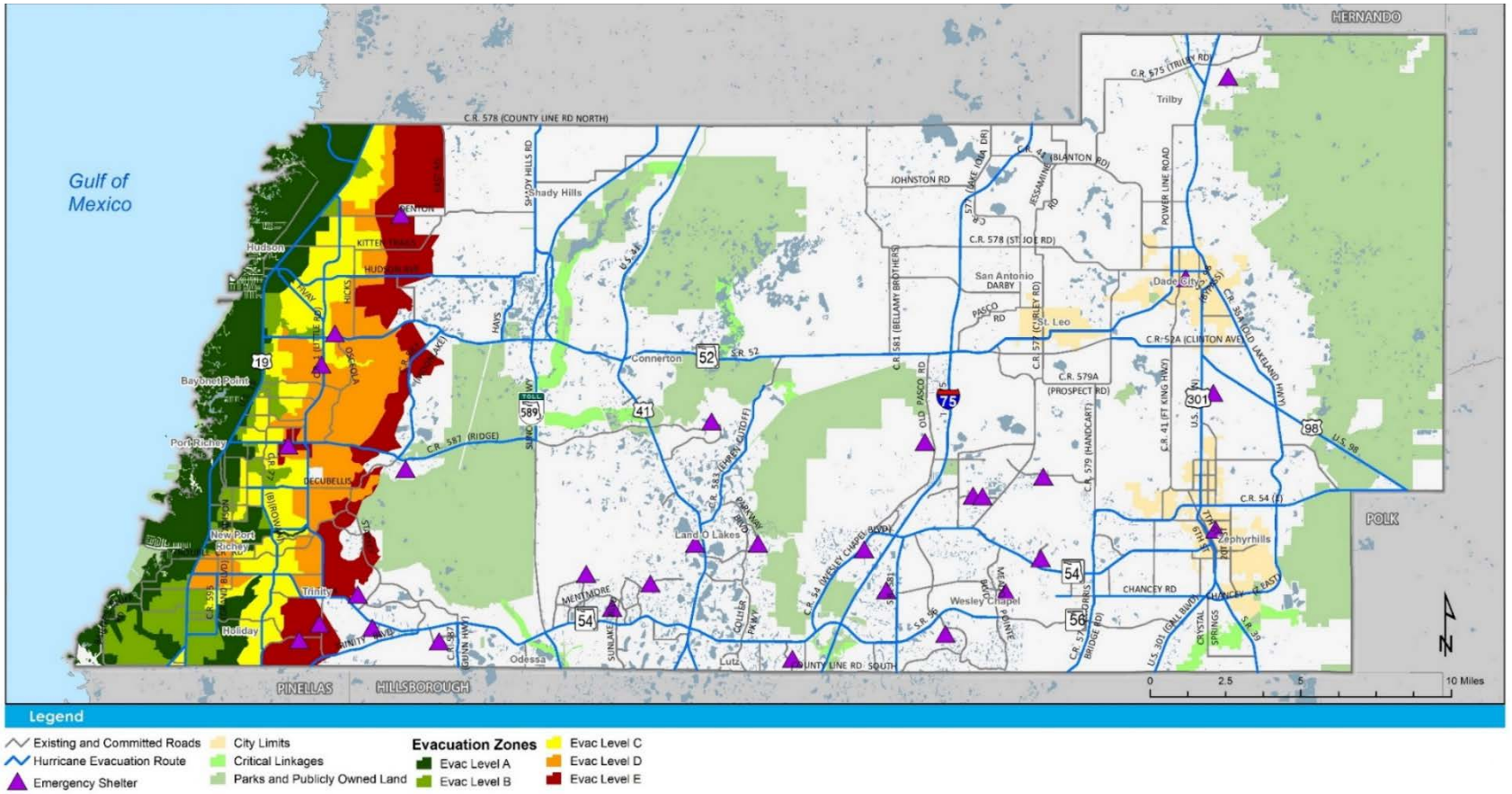

**Figure 7-6: West Pasco Inundation Areas from 5- and 10-Ft Sea-Level Rise Scenarios**

A key transportation consideration in responding to many of the most probable hazards is evacuation. Map 7-5 shows evacuation routes, zones, and emergency shelters in Pasco County that can inform an evaluation for further needs. Given its established route network and facilities, PCPT plays a critical role in these emergency evacuations, particularly in providing transport for citizens without access to a private vehicle or with special needs. PCPT also coordinates with the Pasco County Emergency Operations Center and other public and commercial transportation providers to provide transportation to designated shelters.

## Recommended Security Strategies

- Integrate findings from Resilience and Durability in Extreme Weather pilot Program into the LRTP.
- Coordinate/partner with local and regional agencies to incorporate transportation security into regional and local projects and plans. These processes can begin to introduce considerations and planning for emerging topics such as cybersecurity. In this regard, the MPO's role may include:
    - Providing opportunities to convene agencies and stakeholders for information exchange/collaboration and acting as a liaison between these entities.
    - Providing a clearinghouse of best practices in resilient design and supporting local data.
    - Continued coordination with Pasco County Hazard Mitigation Committee and Office of Emergency Management to update and implement mitigation actions related to the multimodal network.
    - Identifying and implementing ITS and other technologies, including DMS, signage/wayfinding, ATMS, AVL, and other traffic and transit technologies to improve communications and information gathering during hazards/emergency events; evaluate how emerging technologies (see Section 4 technologies and cybersecurity discussion) might apply to hazards response.
    - Coordinating/partnering with local and regional agencies and stakeholders on public education efforts related to security risks, increasing security awareness among community members, and how to assist agencies involved in security efforts.

**Map 7-5: Pasco County Evacuation Routes, Zones, and Emergency Shelters**



Additional technical documentation supporting Chapter 7 can be found in the associates standalone Appendix.

- Appendix 7-1 Pasco Countywide Pedestrian and Bicycle Safety Action Plan (Excerpts)

MOBILITY 2045

Pasco County MPO
Transportation Plan

# Chapter 8
# Needs Plan Development

# Introduction

This document summarizes the development of the MOBILITY 2045 LRTP Needs Plan, which covers the multimodal surface transportation system in Pasco County and was developed in cooperation with State, regional and local implementing agencies. The Needs Plan includes major improvements to roads and transit; other elements are noted in the Needs Plan but are emphasized as key components of the 2040 Cost Affordable Plan.

Understanding and prioritizing transportation needs was the starting point for developing the MOBILITY 2045 LRTP. A major step in the MOBILITY 2045 plan development process was the development of a Policy Constrained Needs Plan. Examples of policy constraints that might impact the Needs Plan include MPO Board-adopted policy statements, right-of-way limitations, and constraints resulting from other social, physical, or environmental barriers or concerns.

On June 12, 2014, the MPO Board adopted the following policy statements regarding the development of the LRTP:

- **Maximum Number of Lanes on Non-Freeway/Expressway Road** – Future road improvements on non-freeway/expressway roads shall be limited to a maximum of six general purpose through-lanes. Exceptions may be made on roads that necessitate special use or auxiliary lanes.
- **Multimodal Transportation** – Multimodal transportation investments will be considered for implementation along with road improvements.
- **New Roadways** – New roadways may be needed for reasons other than resolving congestion and capacity issues. These reasons may include connectivity, safety, emergency evacuation and access, transit services, and others.
- **Right-of-Way Preservation** – The identification, protection, and preservation of right-of-way for needed corridors, based on the MPO's Long Range Transportation Plan and the County's Highway Vision Map, is a critical component of meeting future multimodal transportation needs. Programs that result in protecting and preserving right-of-way are recognized as an integral part of a transportation implementation strategy that ensures that needed right-of-way for roadways, sidewalks and bicycle facilities, multi-use trails, transit, drainage, and landscaping, will be available when needed, and will minimize community disruption and enhance overall project feasibility.
- **Transportation Management and Operations/Congestion Management Process (CMP)** – Transportation Systems Management (TSM), Transportation Demand Management (TDM), and Intelligent Transportation System (ITS) strategies will be considered, as appropriate, as part of the MPO's Congestion Management Process (CMP). These considerations are included to identify opportunities to increase efficiency through transportation management and operations (intersection and traffic signal improvements and technology) and provide multimodal transportation options to the citizens and visitors of Pasco County. Funding will be set aside annually for the implementation of appropriate strategies.
- **Land Use and Transportation Connection** – Transportation planning and project funding will reinforce and be consistent with County and cities' land use policy and growth and economic

development initiatives as documented in the County's and cities' Comprehensive Plans and Land Development Codes.

In addition to these policy statements adopted by the MPO Board, the City of St. Leo constrains SR-52 to a 2-lane undivided road in the vicinity of St. Leo University through its Comprehensive Plan.

Whereas the Needs Plan can be constrained by policy, it is not financially-constrained. A key benefit to the planning process is understanding the extent to which transportation needs are not limited by financial resources. In 2018 dollars, the estimated capital cost of the projects in the MOBILITY 2045 Needs Plan exceeds $7.5 billion and an additional $95 million annually to fund continued and expanded transit service operations. With $5.6 billion in projected revenues, the shortfall for funding the capital transportation needs approaches $2.0 billion. If additional funding becomes available, it is important to have major transportation needs identified so the Cost Affordable Plan can be amended to include additional projects from the Needs Plan as appropriate.

### Roadway and Transit Needs

TBRPM Version 9.0 was used for assessing and determining the roadway and transit needs based on the future expected traffic demand. Regional coordination and testing of alternatives was conducted with the Hernando/Citrus MPO, the Hillsborough County MPO (Plan Hillsborough), and the Pinellas MPO (Forward Pinellas). Within the Tampa Bay TMA, regional scenarios were developed prior to identifying needs to evaluate the regional preference and performance of a coordinated transportation and land use vision as part of the It's TIME Tampa Bay outreach campaign.

### Bicycle and Pedestrian Needs

Multimodal walk and bike networks were based on the existing, planned, and conceptual facilities. Local and regional coordination was facilitated through the Chairs Coordination Committee's Multi-Use Trail Committee.

### Resiliency and Environmental Assessment

Assessing environmental impact and mitigation strategies was a regionally-coordinated activity during the 2045 LRTP update. A workshop was held with the local and resource permitting agencies to facilitate discussion of the opportunities for including environmental avoidance and mitigation strategies in future projects. The Tampa Bay Area was selected by FHWA as one of 11 pilot projects under the Resiliency and Durability to Extreme Weather Program, which resulted in a regional vulnerability assessment of the surface transportation system focusing on inland flooding, storm surge, and sea-level rise.

## Roadway Capacity Needs

The MOBILITY 2045 Roadway Needs Plan consists of roadway expansion, overpass/interchange construction or reconstruction, and road maintenance. The cost of addressing road improvement needs is projected to be $7.3 billion (in 2018$). With an estimated $4.2 billion in funding available for roads (in 2018$), the Pasco County MPO estimates a roadway funding shortfall of $3.1 billion (in 2018$).

Whereas roadway improvements remain the most important part of the MOBILITY 2045 Plan, the reality of the road funding shortfall has contributed further to the need to transition to a more balanced and multimodal transportation system. The roadway network for the 2045 Needs Plan is illustrated on Map 8-1.

## Base-Year Data Development

Early efforts included the development of a base transportation network that represents the Existing + Committed roadway improvements through 2024. Existing regional travel demand models were used for MOBILITY 2045 and coordinated through regularly-scheduled coordination meetings with the Technical Review Team, a regional coordinating committee that works cooperatively on the Tampa Bay Regional Transportation Analysis (RTA). Pasco County MPO staff coordinated closely with FDOT District 7 staff and neighboring MPO partners with respect to the travel demand modeling efforts performed throughout the plan development process. Map 8-2 shows the Existing + Committed roadway network based on the MPO's Transportation Improvement Program and the Pasco County Capital Improvement Program as the basis for developing the needed LRTP projects.

## Travel Demand

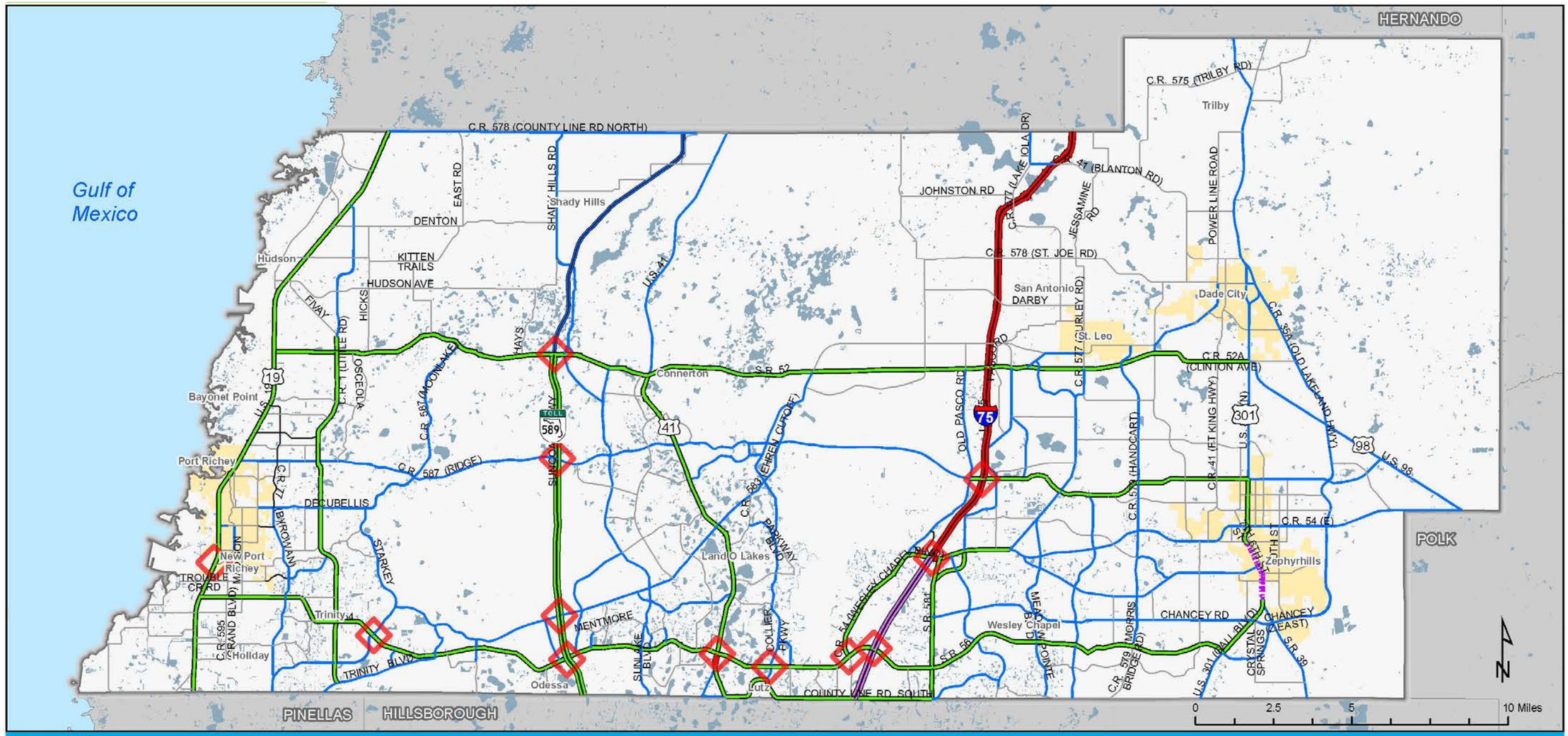
The TBRPM uses a traditional four-step process to forecast traffic demand and transportation choice options for the future 2045 conditions. Advancements in the travel demand analysis have shifted from a daily assignment of vehicle trips to include analysis and evaluation of trips made during peak periods of the day. This advancement has helped with the analysis of higher levels of demand of trips associated with traditional commuting times in the morning and evening hours.

**Figure 8-1: Four-Step Travel Demand Modeling Process**

| | |
|---|---|
| **1)** | **Trip Generation – How many trips will I make?** |
| **2)** | **Trip Distribution – Where will my trip take me?** |
| **3)** | **Mode Choice – How will I travel?** |
| **4)** | **Route Choice – Which roads will I travel on?** |

Further advancements in model development have included analysis of trips based on daily activities instead of the traditional four-step approach that separates trips into individual purpose or function.

**Map 8-1: 2045 Roadway Needs Plan Number of Lanes**

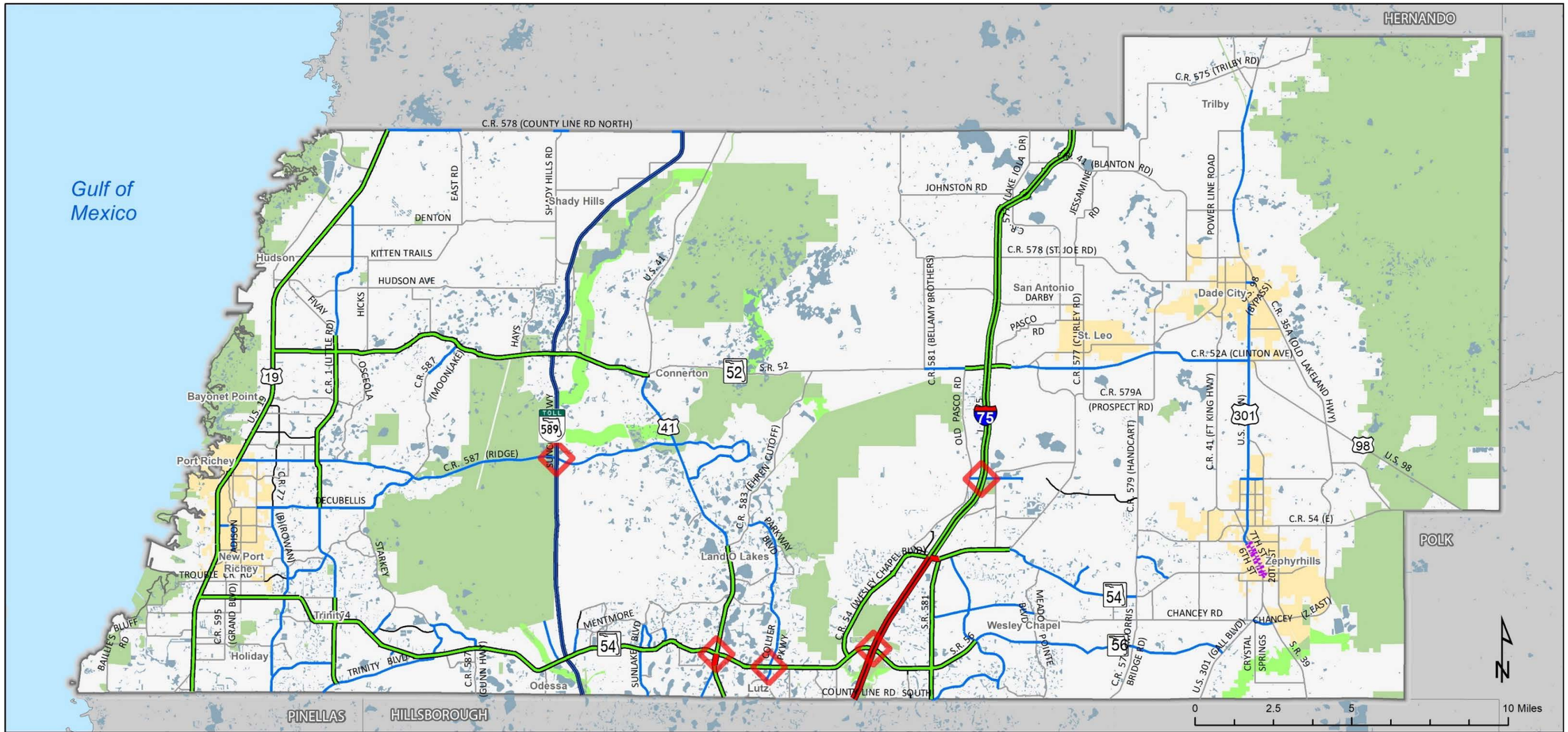



**Legend**

**Number of Lanes**

- 2 Lane Undivided
- 2 Lane Divided
- 2 Lane One Way
- 4 Lane Divided
- 4 Lane Freeway
- 6 Lane Divided
- 6 Lane Freeway
- 8 Lane Divided
- 8 Lane Freeway
- 10 Lane Freeway
- City Limits
- New Interchange/Improvement

**Map 8-2: 2024 Existing + Committed Roadway Number of Lanes**



Through regional coordination and review of transportation system performance, a series of iterative model alternatives was tested using the TBRPM. Table 8-1 describes the alternatives tested. The results of each model run were used to incrementally develop and refine the MOBILITY 2045 Needs Plan for Pasco County in coordination with adjacent counties in the region.

In addition to the technical analysis, significant public outreach was facilitated throughout the plan development process, as documented in Chapter 6.

**Table 8-1: 2045 Tampa Bay Regional Planning Model Needs Alternatives**

| TBRPM Model Run | SE Data | Highway | Transit | Released to | Comment |
|---|---|---|---|---|---|
| 1.0 | 2045 | 2045 | 2040 | All agencies | Started with 2040 Needs and added new projects from MPOs, used 2040 Needs Transit to start and new Draft 2045 SE Data from 4/5/2019 |
| 2.0<br>2.1<br>2.2 | 2045 | 2045 | 2040 | All agencies | Included various network changes to Needs and E+C networks where projects were more advanced than previously reported for coding |
| 3.0<br>3.1 | 2045 | 2045 | 2040 | All agencies | Changes made in Hillsborough for no-toll option alternative |
| 4.0 | 2045 | 2045 | 2045 | All agencies | Full 2045 Needs, transit update included |
| 4.0.4<br>4.0.6<br>4.0.8 | 2045 | 2045 | 2045 | All agencies | Made modifications for Hillsborough projects from 2.2 alternative and tested THEA Crosstown Expwy at three levels of 4-, 6-, and 8 -lane options |
| 4.1 | 2045 | 2045 | 2045 | All agencies | Moved E/W toll lanes from Tampa Rd corridor to Park/Gandy Blvd corridor and other updates; changes made as cleanup to various portions of network and selected 6L THEA Crosstown option |
| 4.1.1 CS | 2045 | 2045 | 2045 | All agencies | Moved E/W toll lanes in Pinellas from Park/Gandy corridor to Ulmerton corridor; started run Choice Set Mode Choice for premium ridership analysis |
| 4.2 | 2045 | 2045 | 2045 | All agencies | Removed E/W toll lanes from Pinellas, incorporated new updates from Pasco to E+C and Needs networks |
| 4.2.1<br>4.2.2 | 2045 | 2045 | 2045 | Hillsborough | Fixed Guideway alternative tests for Hillsborough using 10/20 and 30/60 peak /off-peak headways for select fixed guideway routes |
| 4.2.3 | 2045 | 2045 | 2045 | Hillsborough | No-toll option run for Hillsborough, lowering Gandy Blvd elevated toll lane lanes and removing the ETL from Gandy Bridge |
| 4.3 | 2045 | 2045 | 2045 | FDOT | Minor network corrections |
| 4.3.1 | new 2045 | 2045 | 2045 | Not released | Hernando/Citrus Turnpike Extension alternative tests; SE data updated for Hernando/Citrus vacancy rates and Manatee; model runs made but additional analyses conducted on Cost Affordable network |
| 4.3.2 | new 2045 | 2045 | 2045 | All agencies | Minor Needs project changes for Hernando/Citrus |

## Regional Scenario Assessment

The MPOs of Hillsborough, Pinellas and Pasco developed three regional land use and transportation scenarios to consider future growth and transportation investments that were designed to be significantly different in form and function to assess the performance of each.

Figure 8-2 illustrates the transportation and land use components of Scenario A. Designed to simulate an investment in transportation related technologies, this scenario highlighted managed lanes on I-75 and completion of the Ridge Rd corridor in Pasco County.

Figure 8-3 depicts Scenario B with a focus on expressway lanes that formed an outer loop for the Tampa Bay Area and a conversion of the I-275 corridor through Tampa to a multimodal boulevard. In Pasco County, this meant including express lanes on SR-54 between I-75 and the Suncoast Parkway.

Figure 8-4 included a primary investment strategy focused on bus and rail services connecting today's existing communities through revitalization and in-fill. In Pasco County, this included investing in the CSX rail corridor and dedicated rapid bus service along SR-54 and Trinity Blvd, connecting US-19 to Bruce B. Downs Blvd.

**Figure 8-2: Scenario A: New Technologies**

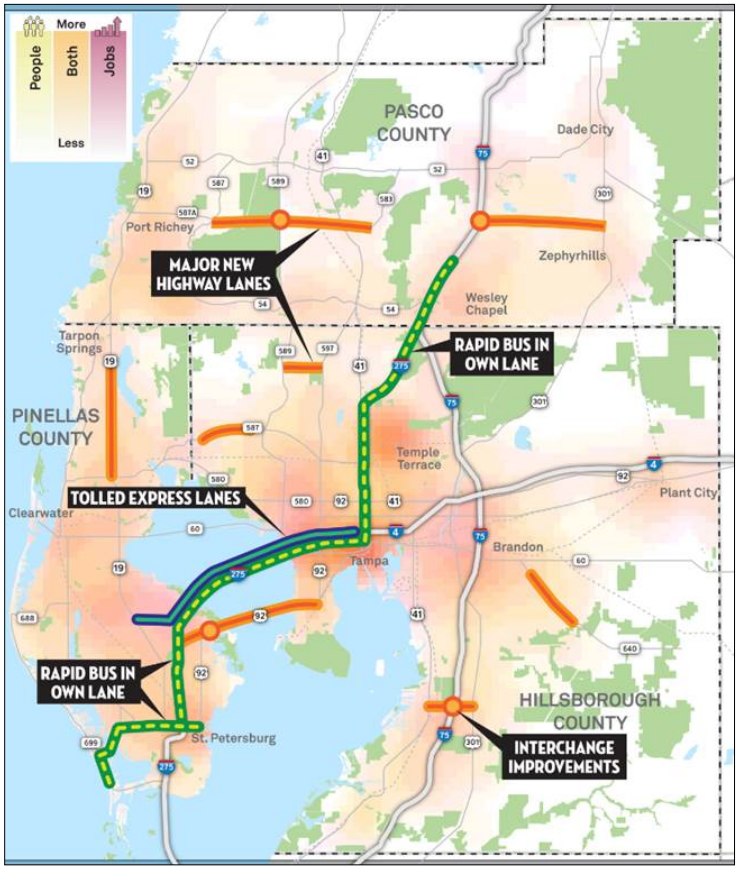


**Figure 8-3: Scenario B: Express Lanes**

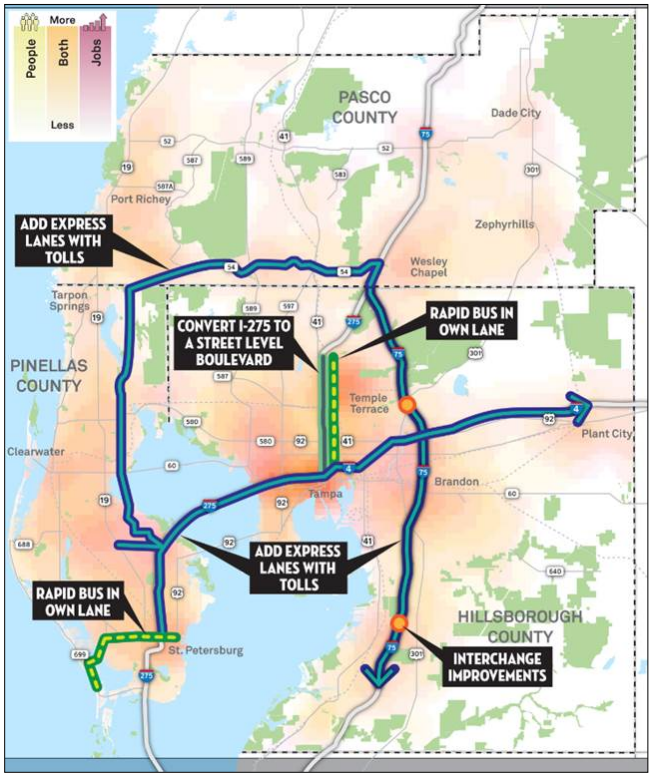
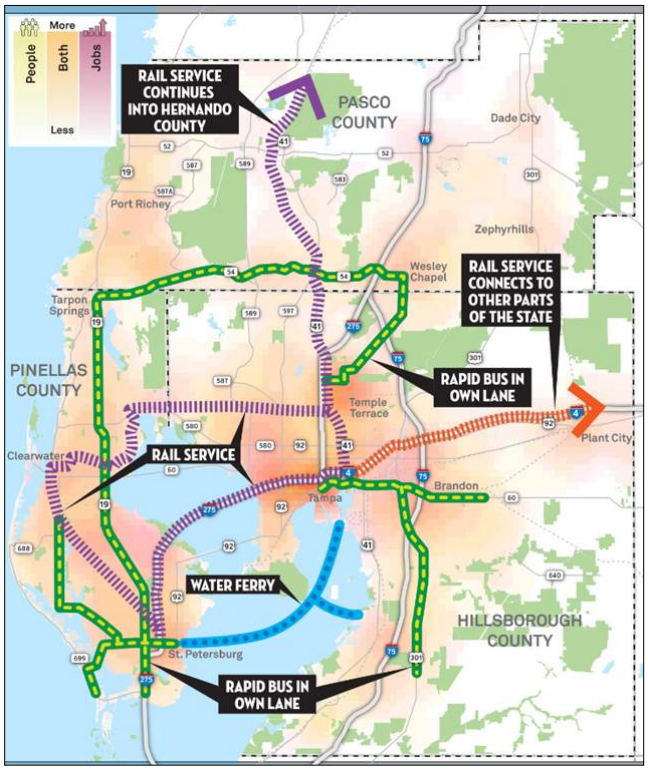



**Figure 8-4: Scenario C: Bus and Rail Services**



Seven priority topics were identified for assessing the performance of these scenarios:

- Impacts on Alternatives to Driving
- Impact on Shorter Commutes
- Impact on Equal Opportunity
- Impact on Open/Green Spaces
- Impact of Public Service Costs
- Impact on Strom Vulnerability
- Impact on Traffic Jams

Multiple indicators were developed to evaluate the system performance of these priority topics. A percent change between the scenario and baseline conditions was calculated for each indicator and then weighted for the priority topic. The percent change was then normalized to fall within a range of ±50. A priority with a score of -50 represents an extreme negative performance, and a priority with a score of +50 represents an extreme positive performance.

## Transit System Needs

This section summarizes the efforts undertaken to conduct the MOBILITY 2045 transit needs assessment. The most recent TDP was reviewed to obtain the salient findings about transit needs in the next 10 years, and an evaluation of traditional and discretionary transit markets facilitated the identification of areas most conducive to transit in Pasco County in the next 25 years. Public input and regional coordination also were considered as part of the transit needs assessment process. Following is a brief description of these five components:

- ***Access Pasco*: A Plan for Transit** – The recently-adopted 2019–2028 Pasco County TDP is the strategic guide for transit in Pasco County, which represents PCPT's vision for public transportation in its service area during the 10-year period. Transit needs information identified in this document was used as a key component in assessing the transit needs for Pasco in the next 20+ years.
- **Discretionary Transit Market** – The discretionary market refers to potential riders living in higher-density areas of the county that may choose to use transit as a commuting or transportation alternative. This component considers 2045 population and employment density and its importance as a factor related to transit use.
- **Traditional Transit Market** – This component considers demographic factors that are traditionally conducive to transit use, including older adult and youth populations, low-income households, and zero-vehicle households.
- **Public Input** – Public input is an important component that must be considered when conducting a needs assessment. Needs Plan alternatives should reflect public opinion on topics related to the quality of existing transit service and how the existing service can be improved. Public input was considered from numerous public outreach efforts.
- **Regional Coordination** – This component considers consistency with the regional vision plan for transit in the form of the TBARTA Master Plan, including transit connectivity between counties

in the region. The TBARTA Master Plan and transit plans in adjacent counties were reviewed to ensure coordination and consistency.

These components were used to guide the development of the MOBILITY 2045 transit needs for Pasco County. Analysis resulted in a list of proposed transit service and capital improvements for Pasco County through 2045. Each component is discussed in more detail below.

## Improvements to Existing Routes

Increasing frequencies, expanding hours, and adding new days of service for existing bus routes are significant needs identified through the alternative's development process. These potential improvements to the existing fixed-route network include the following:

- **Enhanced frequency on selected routes** – Input received from various public outreach activities indicated improved frequencies as a key priority. However, due to the additional operating and capital resource needs associated with this type of improvement, frequency improvements quickly can become costly. Therefore, enhanced frequencies should be applied only to routes with the highest ridership and/or serve as key connectors, including the following:
  - *Double frequency on Route 19* – Route 19 currently operates at 30-minute headways and is PCPT's most-used route. Due to current demand and the population and employment growth anticipated along the US-19 corridor in the next 10 years, frequency should be increased to 15 minutes all day on weekdays and Saturdays.
  - *Double peak-hour frequency on key routes* – Current frequencies are approximately 60 minutes for routes 16, 21, 23, and 54. This should be improved to 30 minutes during AM and PM peak travel times (e.g., 6:00–9:00 AM; 4:30–6:30 PM) on weekdays and Saturdays.
- **Extended weekday service on selected routes until 9:00 PM** – A need for adding later service to accommodate workers with later schedules was identified during the public outreach process. Most routes currently end service at 6:00–7:00 PM on weekdays, except for Route 19, which operates until 10:45 PM. To address the need for later service and to enable connections to and from Route 19 later than 7:00 PM, weekday service on routes 14, 16, 18, 21, 25, and 54 should be extended until 9:00 PM.
- **Implement Sunday service on selected routes** – Bus service on Sundays, currently not provided by PCPT, was indicated as a top need in the next 10 years. To address the need for all-weekend service, Sunday service should be implemented at least on the high-performing routes/key corridors, including routes 14, 16, 18, 19, 21, 25, and 54.
- **New service expansion** – Service improvements also could include the provision of new service not currently provided by PCPT, as follows:
  - **Wiregrass Hopper (circulator in Wesley Chapel)** – Employment and population growth in Wesley Chapel and public input support the implementation of a circulator to connect the key nodes within Wesley Chapel. The circulator service would connect the four major activity centers in the area—Tampa Premium Outlets, The Shops at Wiregrass, Florida Hospital of Wesley Chapel, and PHSC's Porter Campus on SR-56. Traffic congestion has become a major issue during peak hours and on holidays along SR-56, and a new

circulator service may help address congestion and parking demand. The circulator would allow people to park at one location, visit multiple destinations, and improve the ability for potential employees to access jobs in this fast-growing retail/commercial hub. The proposed "Wiregrass Hopper" would operate every 20 minutes from 9:00 AM to 10:00 PM on weekdays and Saturdays and 10:00 AM to 6:00 PM on Sundays.

- **SR-52 Commuter Express** – This service would add a cross-county connection and would not require riders north of the SR-54 corridor to travel south to SR-54 to travel across the county. As most of the SR-52 corridor does not contain enough population and employment densities to support a local bus service, a peak-hour-only commuter express service operating along SR-52 to connect Dade City with US-19 at Bayonet Point is recommended.
- **Shady Hills Connector** – The need for transit service in the Shady Hills area and an additional regional connection to Hernando County were identified as needs. Proposed service should operate with 60-minute headways from 7:00 AM to 7:00 PM on weekdays and Saturdays.
- **Replacement of current Route 41 with microtransit in Land O' Lakes (US-41 corridor)** – Route 41, which was implemented in early 2017, has continued to perform well below the productivity standards set by PCPT, often with fewer than 10 riders using it for the whole day. However, the importance of maintaining some form of transit service along the US-41 corridor has been noted, connecting the area to the SR-54/56 corridor. Therefore, microtransit service along the US-41 corridor should be considered. Microtransit is a smaller-bus, low-cost, on-demand service that functions as a flexible feeder service to other established routes in a network. This would help riders to connect within its service area and with Route 54 and any existing and planned regional connections to the south. The proposed service is recommended to operate from 8:00 AM to 7:00 PM on weekdays and Saturdays.
- **St. Leo University service** – This route would connect St. Leo University with Dade City and the surrounding areas, providing direct access to various services and locations in Dade City. St. Leo has 2,200+ undergraduate and 3,600+ graduate students; data show that more than 85 percent of freshmen and more than 60 percent of all undergraduates live on campus. A connection to Dade City would provide students with a convenient and safe travel option to access Dade City during the day and at night. The proposed service is recommended to operate with 60-minute headways from 12:00 PM to 10:00 PM on weekdays and Saturdays.

## Discretionary Transit Market

The discretionary market refers to potential riders living in higher-density areas of the county that may choose to use transit as a commuting or transportation alternative. A Density Threshold Assessment (DTA) was conducted based on industry-standard relationships to identify areas of Pasco County that experience transit-supportive residential and employee density levels today and in the future. Dwelling unit and employment data developed as part of the MOBILITY 2045 LRTP were used to conduct the DTA. Three levels of density threshold were used to indicate if an area contains enough densities to sustain some level of fixed-route bus service:

- **Minimum** – reflects minimum dwelling unit or employment densities to consider basic fixed-route transit services (i.e., fixed-route bus service).
- **High** – reflects relatively higher dwelling unit or employment densities that may be able to support higher levels of transit investment than areas that meet only the minimum density threshold (i.e., increased frequencies, express bus).
- **Very High** – reflects very high population or employment densities that may be able to support higher levels of transit investment than areas that meet the minimum or high density thresholds (i.e., premium transit services, etc.).

Table 8-2 presents the density thresholds for each of the noted categories.

**Table 8-2: Transit Density Thresholds**

| Transit Investment | Population Density | Employment Density |
|---|---|---|
| Minimum | 4.5–5 dwelling | 4 employees/acre |
| High | 6–7 dwelling | 5–6 employees/acre |
| Very High | ≥ 8 dwelling | ≥ 7 employees/acre |

*[1] TRB, National Research Council, TCRP Report 16, Volume 1 (1996), Transit and Land Use Form, November 2002, MTC Resolution 3434 TOD Policy for Regional Transit Expansion Projects.*
*[2] Based on review of research on relationship between transit technology and employment densities.*

## Traditional Market

The traditional transit market refers to population segments that historically have had a higher propensity to use transit and are dependent on transit for their transportation needs. Traditional transit users typically include older adults, youth, and households that are low-income and/or have no vehicles.

A Transit Orientation Index (TOI) assists in identifying areas of the county where traditional transit markets exist. To create the TOI for this analysis, five-year demographic data estimates from the 2017 ACS were compiled at the census block group level (the most detailed level of data available from ACS) and categorized according to each block group's relative ability to support transit based on the prevalence of specific demographic characteristics. Five population and demographic characteristics that are traditionally associated with the propensity to use transit were used to develop the TOI:

- Proportion of the population age 65 and over (older adults)
- Proportion of the population under age 15 (youth)
- Proportion of the population below the poverty level ($25,000 for a household of 4)
- Proportion of households with no vehicles (zero-vehicle households)
- Population density (persons per square mile)

Using data for these characteristics, each area was ranked as "Very High," "High," "Medium," or "Low" in their respective levels of transit orientation. The areas that ranked "Very High" reflect a very high transit orientation, i.e., a high proportion of transit-oriented populations, and those ranked "Low" indicate much lower proportions of transit-oriented populations.

## Regional Coordination

As previously noted, the regional transit assessment addresses those riders who wish to access destinations throughout the Tampa Bay area by using a connected regional transit system. As part of the regional coordination effort conducted for MOBILITY 2045, various regional plans were reviewed, including the most recent update to the TBARTA Regional Transportation Master Plan, the Regional Transit Feasibility Study, and the Regional Rapid Transit Corridor Study. These regional efforts create the framework for development of an interconnected, linked transportation network consisting of a variety of modes (highways, rail, bus, ferry). The upcoming Regional Transit Development Plan will provide an outline of opportunities for implementing and defining future regional transit services.

Significant regional transit projects that provide improved inter-county mobility to residents and increased level of service proposed include the following:

- **I-75 Express/Suncoast Express** – express routes that provide north-south connections between Pasco, Hernando, and Hillsborough counties.
- **US-19 Express** – connects West Pasco County to Pinellas County via the US-19 corridor; PSTA will accommodate this transit need by potentially providing enhanced transit service in the form of premium bus service on US-19 corridor.
- **SR-54 Express** – east-west express service that provides a direct connection between New Port Richey in West Pasco and Zephyrhills in East Pasco.
- **CSX Corridor Rail** – proposed future long-distance rail operating within the existing CSX rail corridor to link Bradenton (Manatee County), Tampa (Hillsborough County), Land-O-Lakes (Pasco County), and Brooksville (Hernando County).
- **Tri-County Rail** – short-distance rail service that connects St. Petersburg/Clearwater (Pinellas County), Tampa (Hillsborough County), and Wesley Chapel (Pasco County).

## Development of Transit Needs

As presented in the previous section, five components were used to guide the development of the MOBILITY 2045 transit needs:

- Summary of service improvement alternatives identified in *Access Pasco: A Plan for Transit*
- Assessment of the discretionary transit market
- Assessment of the traditional transit market
- Review of LRTP public involvement results
- Review and analysis of regional transit needs

### *Service Needs*

Based on the five components presented above, the 2045 LRTP Needs Plan alternatives were developed and are summarized as follows. The service improvements are presented in terms of improvements to existing service and new service expansion.

### Improvements to Existing Service

- Increase service frequency to 15 minutes on Route 19.
- Increase service frequency to 30 minutes on all other existing routes.
- Expand 3 hours of service at night on existing routes.
- Add Sunday service on existing routes.

### New Services/Routes

- New Premium Transit Service:
    - SR-54 Premium Service – 15-minute premium bus service (potentially includes BRT service in an exclusive lane from Little Rd to Meadow Pointe Blvd and in mixed-traffic from US-19 to Little Rd and from Meadow Pointe Blvd to US-301).
    - US-19 Premium Service – Premium bus service offering 15-minute service frequency along US-19 corridor between US-19 and Little Rd in Pasco County and Tarpon Springs in Pinellas County.
    - Bruce B. Downs/Wesley Chapel BRT – BRT service operating on an exclusive lane and offering 15-minute service frequency between SR-52 and Pasco-Hillsborough County Line Rd in Wesley Chapel.
    - Dale Mabry/US-41 Premium Transit – Premium bus service operating along North Dale Mabry Hwy between SR-54 and County Line Rd, provided by HART's MetroRapid service.
    - Regional Rail on US-41 – Passenger rail service operating along the existing CSX corridor in Pasco County. This service also is identified as part of TBARTA's 2050 regional transit network.
    - Regional Rapid Transit – BRT service on I-275 from SR-56 to Downtown St. Petersburg. This project is the result of a Regional Transit Feasibility Plan conducted by TBARTA.
- Express Service:
    - SR-54 Cross County Express – Express service running along SR-54 between New Port Richey and Zephyrhills.
    - US-19 Express – North-south express service operating along US-19 between Pasco-Hernando State College in Hernando County and Tarpon Mall in Pinellas County.
    - Suncoast Express – Express bus service operating along Suncoast Parkway from Pasco County to the Westshore area in Hillsborough County.
    - Regional Express on I-75 – Express bus service operating along full length of the I-75 corridor in Pasco County, consistent with the regional I-75 express service identified by the TBARTA Master Plan.
    - Wesley Chapel/USF Express – Express service operating along Bruce B. Downs Blvd and I-75 between SR-52 in Pasco County and USF in Hillsborough County.
    - Spring Hill Connector Limited Express – Limited express service operating between Hudson and Spring Hill along US-19 corridor.
    - SR-52 Cross County Express – Express service running along SR-52 from US-19 to US-301.

- Local Service Needs:
  - Chancey Rd Connector – Local bus route connecting Zephyrhills South with Wesley Chapel via Chancey Rd.
  - Trouble Creek/River Crossing Service – Local bus route connecting Moon Lake with New Port Richey South via Trouble Creek Rd and River Crossing Blvd.
  - Land O' Lakes-Hudson Connector – Local bus route operating between Land O' Lakes and Hudson via future proposed Sunlake Blvd.
  - Hudson Area Circulator – Circulator service serving the local communities in the Hudson area.
  - Zephyrhills to Wesley Chapel Local Service – Fixed-route service connecting Zephyrhills and Wesley Chapel via SR-54.
  - Blanton-Wiregrass Park-and-Ride Local Service – Local service connecting future park-and-ride facility in Wiregrass to Blanton via Meadow Pointe Blvd and CR 577.
  - Zephyrhills to Cypress Creek Local Service – Fixed-route service running along Eiland Blvd and future proposed SR-56, connecting Zephyrhills with Cypress Creek.
  - Zephyrhills to Bruce B. Downs – Local service connecting Zephyrhills and Bridgewater via future proposed Overpass Rd Extension.
  - SR-52 Cross County Connector – Cross-county fixed-route service operating along SR-52 between Bayonet Point in West Pasco and Dade City in East Pasco.
  - Ridge Rd Connector – Local service connecting Pasco-Hernando State College West Campus with US-41 at Connerton Blvd via Ridge Rd and its future east extension.
  - St. Leo-Dade-City Connector – Local service providing connections between St. Leo University and Dade City via SR-52.
  - Starkey Connector – Local service from the intersection of River Crossing Blvd and Alico Pass to the intersection of SR-54 and Gunn Hwy, running along Starkey Blvd and the proposed future Tower Rd.
  - Connerton Circulator – Local service circulating in the Connerton area.
  - Zephyrhills Circulator – Circulator service connecting future industrial parks in Zephyrhills with fixed-route service.
  - Wiregrass Hopper – Circulator service to be provided in on SR-56 Wesley Chapel to better connect key nodes within the area.
  - Shady Hills Connector – Fixed-route service connecting Little Road/SR-52 with Hernando County.

Table 8-3 summarizes the transit service improvements presented above and their key operating characteristics. Map 8-3 illustrates the transit service alternatives included in the Needs Plan.

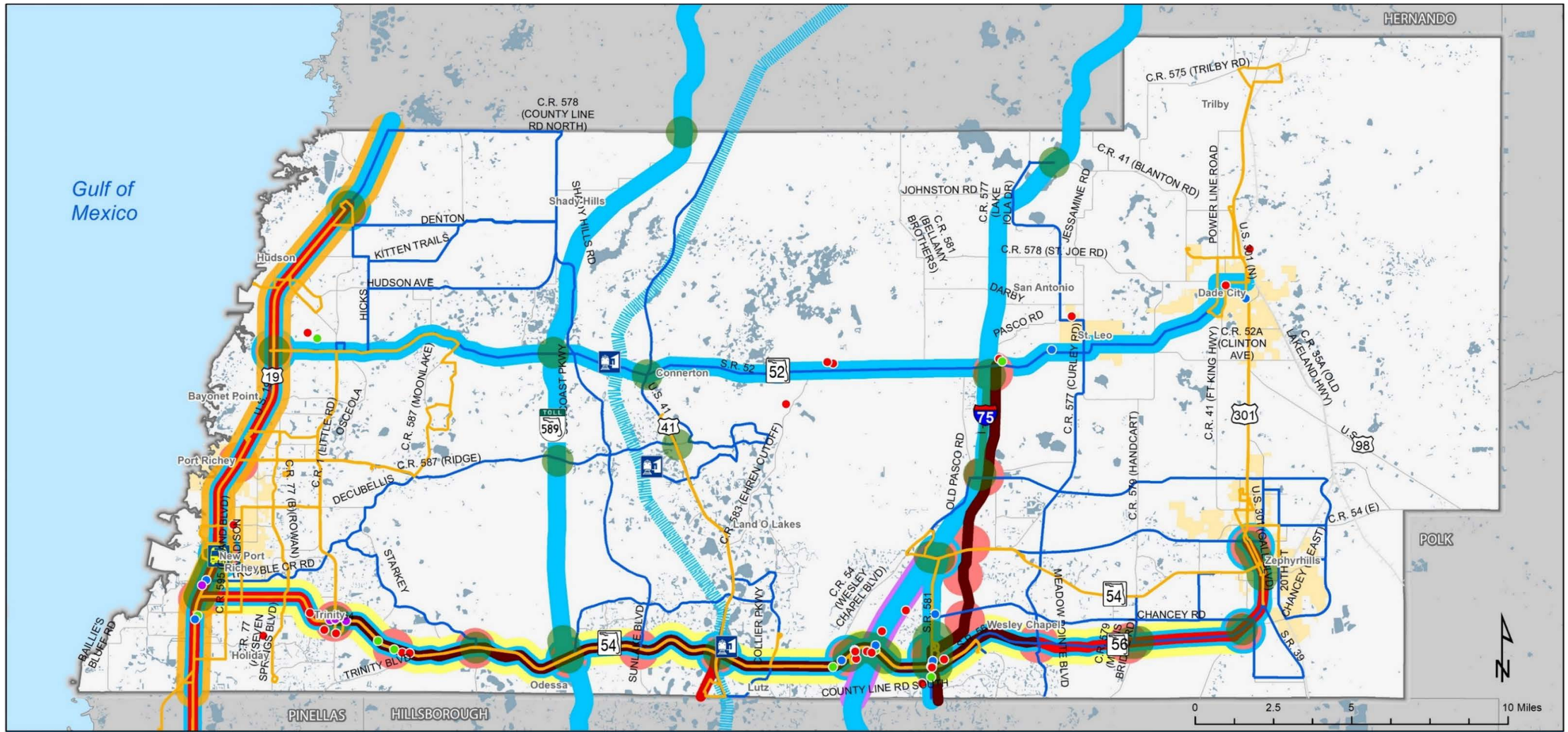
- Capital Needs – include capital components that need to be implemented to accommodate the transit service improvements presented in Table 8-3:
  - Multimodal transit center on US-19
  - 12 urban park-and-ride vision areas (1-acre lots with 100 spaces)
  - 1 conceptual peripheral park-and-ride vision area (1-acre lot with 100 spaces)
  - 8 conceptual rural park-and-ride vision areas (½-acre lots with 44 spaces)

- 22 major transit stations/stops (15 associated with park-and-ride vision areas)
- BRT exclusive running ways
- 3 commuter rail stations
- 4 bus "super stops"
- Signs, shelters, and transfer facilities to accommodate new bus services
- New buses to accommodate new and expanded services
- Dozens of possible transit accessibility improvements, such as sidewalks, crosswalks, ramps, ADA access, safety, etc., from the "Bus Stop Accessibility and Connectivity Study" (December 2012)

**Table 8-3: 2045 Needs Plan Transit Service Alternatives Summary**

| Route Name | Suggested Headway (min) | Daily Hours of Service | Service Days |
|---|---|---|---|
| Chancey Rd | 30 | 18 | Mon–Sat |
| Route 19 – 15-min Premium Service | 15 | 18 | Mon–Sat |
| Trouble Creek/River Crossing Local Service | 30 | 18 | Mon–Sat |
| Land O' Lakes-Hudson Connector | 30 | 18 | Mon–Sat |
| Hudson Area Circulator (round trip) | 30 | 18 | Mon–Sat |
| Land O' Lakes Circulator (round trip) | 30 | 18 | Mon–Sat |
| US-41 Local Service to Brooksville | 30 | 18 | Mon–Sat |
| Zephyrhills to Wesley Chapel Local Service | 30 | 18 | Mon–Sat |
| Blanton-Wesley Chapel Local Service | 30 | 18 | Mon–Sat |
| Zephyrhills to Cypress Creek Local Service | 30 | 18 | Mon–Sat |
| Zephyrhills to Bruce B. Downs | 30 | 18 | Mon–Sat |
| SR-52 Cross County Connector | 30 | 18 | Mon–Sat |
| SR-52 Cross County Express | 30 | 18 | Mon–Sat |
| SR-54 Cross County Express | 30 | 18 | Mon–Sat |
| Ridge Rd Connector Local Service | 30 | 18 | Mon–Sat |
| Wesley Chapel/USF Express | 30 | 18 | Mon–Sat |
| Wiregrass Hopper | 30 | 18 | Mon–Sat |
| St Leo -Dade City Connector | 30 | 18 | Mon–Sat |
| Spring Hill Connector Limited Express | 30 | 18 | Mon–Sat |
| SR-54 15-min Premium Transit Service | 15 | 18 | Mon–Sat |
| Suncoast Express | 30 | 18 | Mon–Sat |
| **US-19** Express (PHSC to Tarpon Mall) | 30 | 18 | Mon–Sat |
| Regional Express I-75 (off-peak) | 30 | 12 | Mon–Sat |
| Regional Express I-75 (peak) | 20 | 6 | Mon–Sat |
| Regional Rapid Transit (I-275) | 30 | 18 | Mon–Sat |
| Starkey Connector | 30 | 18 | Mon–Sat |
| Connerton Circulator | 30 | 18 | Mon–Sat |
| Bruce B. Downs/Wesley Chapel BRT | 15 | 18 | Mon–Sat |
| Dale Mabry/US-41 Premium Transit | 15 | 18 | Mon–Sat |
| Regional Rail on US-41 (Brooksville to Downtown) – peak | 15 | 6 | Mon–Sat |
| Regional Rail on US-41 (Brooksville to Downtown) – off-peak | 30 | 12 | Mon–Sat |
| Shady Hills Connector | 30 | 18 | Mon–Sat |
| St. Leo University Connector | 30 | 18 | Mon–Sat |
| Zephyrhills Circulator (round trip) | 30 | 18 | Mon–Sat |

**Map 8-3: MOBILITY 2045 Transit Needs Plan**



# Walk and Bike Needs

Developing an active (walking and cycling) transportation system in Pasco County is built on completing the existing network of sidewalk, trails, bike lanes, and paths in a manner that recognizes the unique needs of the users and function of transportation facilities. Highlights of the approach proposed in MOBILITY 2045 include the following:

- All road widening and construction projects in the LRTP will include appropriate bicycle facilities and sidewalks.
- Continued implementation of bicycle and sidewalk safety projects currently prioritized for implementation.
- Use of Pasco County's recently-updated roadway cross-section designs, which include appropriate bike/ped facilities, when filling gaps in the system or resurfacing/rehabilitation existing roadways.
- Identification of opportunities for local road connections in established areas as alternatives to busy, and often unsafe, arterials.
- Preparation of a comprehensive bike/ped plan that would consider opportunities, constraints, and evaluation of alternative solutions or projects specific to the needs and vision of the County's Market Areas.
- Prioritized identified projects based on technical criteria for implementation
- Coordination with FDOT, County, and City staff for using the $183 million set aside in the LRTP through 2045 for walk/bike.

## Active Transportation

The transportation system in a community has a strong influence on the quality of an person's life; transportation systems that limit choice can negatively impact health by limiting opportunities for exercise, increasing stress, and decreasing air quality. Creating an active transportation network has the potential to lower the negative health impacts of the transportation systems that are dominated by automobile-centric designs, especially for populations that are disproportionately impacted by them. Active transportation is defined by the Center for Disease Control and Prevention (CDC) as "any self-propelled, human-powered mode of transportation, such as walking or bicycling." Strategies for ensuring an active transportation network include the provision of sidewalks, bicycle paths, greenways, sharrows, complete streets and transit.

To ensure that these active modes are viable forms of transportation, they must be strategically placed and designed with safety in mind. Equal in importance are good design principals that promote walkability. For example, the literature suggests that walkable environments (i.e., demonstrating street connectivity, destination accessibility, and presence of active transport infrastructure) are correlated with increased physical activity in both children and adults.[10] Adolescents who live in walkable neighborhoods have lower risk for chronic diseases such as diabetes, heart disease, and high blood

[10] Melody Smith et al. (2017), Systematic Literature Review of Built Environment Effects on Physical Activity and Active Transport – An Update and New Findings on Health Equity, *International Journal of Behavioral Nutrition and Physical Activity,* Vol 14, No. 1 (2017), doi:10.1186/s12966-017-0613-9.

pressure due to their higher levels of physical activity.[11] Active transportation systems have the potential to maximize the community's benefits in their physical and mental health.

### *Physical Activity*

Evidence continues to support the notion that the built environment has a causal relationship to physical activity. According to the American Heart Association, daily physical activity such as walking and biking can reduce the risk of developing heart disease, stroke, high blood pressure, diabetes and some types of cancer. One study found that active commuting that incorporates walking and cycling was associated with an 11 percent reduction in cardiovascular risk, and another study found that that a daily brisk walk of 20 minutes a day is enough to reduce the risk of early death by 16–30 percent.[12] These benefits can be particularly valuable in a state like Florida, where in 2018, almost 2/3 of adults Floridians were considered to be at an unhealthy weight.[13]

The health benefits of active transportation can decrease, and even eliminate, several conditions such as fatigue, sleep disorders, asthma, diabetes, weak muscles and bones, and cardiovascular disease.[14] For example, according to Asthma UK, when asthma is managed properly, regular exercise can reduce asthma risks by improving lung function and boosting the immune system.[15] These benefits can be particularly beneficial for populations who are disproportionately impacted by asthma. For 2007–2009, black persons had higher rates for asthma, emergency room visits and hospitalizations per 100 persons with asthma than white persons, and a higher asthma death rate per 1,000 persons with asthma.[16]

### *Mental Health*

Active transportation systems can be equally beneficial for mental health. Modes such as walking, can create opportunities for social interaction and community cohesion, such as quick greetings on sidewalks or conversations held at bus stops. In addition, physical activity can change chemicals in the brain such as endorphins, serotonin and stress hormones, which can immediately impact one's mood. In addition to the immediate chemical effects on the brain, an increase in physical activity can improve conditions like sleeping disorders that lead to more energized and lifted moods.

Driving to work by car can degrade one's mood in the form of anger, frustration, and boredom. This is especially true for commutes marked by long distances, congestion, social isolation, aggressive driving, and higher costs. A 2011 study in Britain found that driving created more psychological stress for women compared to men, even after controlling for variables like income and job satisfaction.[17] The negative

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[11] David Francis (2018), *Connecting Health and Equity to Complete Streets*, Greater Southeast Affiliate: American Heart Association, Safe Streets Summit, West Palm Beach, https://www.safestreetssummit.org/2018-presentations.
[12] Mark Hamer and Yoichi Chida (2008), Active Commuting and Cardiovascular Risk: A Meta-analytic Review, *Preventive Medicine* 46, no. 1, 9-13. doi:10.1016/j.ypmed.2007.03.006.
[13] Florida Department of Health (2018), Dietetics Nutrition Healthiest Weight Florida, http://www.floridahealth.gov/licensing-and-regulation/dietetic-nutrition/healthiest-weight.html.
[14] Department of Health & Human Services (2012), Physical Activity - It's Important," Better Health Channel, https://www.betterhealth.vic.gov.au/health/healthyliving/physical-activity-its-important.
[15] Asthma UK, Exercise and Activities, https://www.asthma.org.uk/advice/living-with-asthma/exercise-and-activities/.
[16] Lara J. Akinbami et al. (2012), Trends in Asthma Prevalence, Health Care Use, and Mortality in the United States, 2001-2010, National Center for Health Statistics Data Brief, no. 94, https://www.cdc.gov/nchs/data/databriefs/db94.pdf.
[17] Jennifer Roberts, Robert Hodgson, and Paul Dolan (2011), Its Driving Her Mad": Gender Differences in the Effects of Commuting on Psychological Health." *Journal of Health Economics*30, no. 5. 1064-076. doi:10.1016/j.jhealeco.2011.07.006.

stress of commuting was found to be the highest in women with preschool children compared to men with young children, or single men and women without children. In contrast, walking and biking can provide less stressful commutes by avoiding many of the stressors associated with typical car commutes. In addition, the physical activity itself may block negative thoughts, leading to a healthier state of mind.

### *Air Quality*

With fewer automobile trips made and vehicle miles traveled, less air pollution caused by automobile trips can mitigate pollutants known to worsen or cause respiratory illnesses like asthma, allergic respiratory disease, and chronic obstructive pulmonary disease (COPD) and even heart attacks.[18]

Traffic-related air pollution has been linked to respiratory conditions such as wheezing, decreased lung function, and cardiovascular disease. Living near a highway or major roadway increases a person's exposure to traffic-related air pollution and can disproportionately impact the health of a community's most vulnerable populations. A study that looked at lung development in youth ages 10–18 who lived within 500 meters of a freeway had a higher risk of decreasing lung function later.[19] Long-term exposure to traffic-related air pollution has been linked to childhood asthma in several studies.[20]

In addition, communities near a highway or major roadway are often low-income and communities of color. Traffic pollution can also disproportionately impact the health of those relying on alternative modes of transportation such as biking. Bicyclists, for example, breathe air more frequently and with more volume, thus increasing the amount of pollutants entering the body.[21] Poor air quality has also been associated with poorer sleep, decreased attention spans in children, exacerbated autoimmune diseases, and adverse pregnancy outcomes including pregnancy loss.[22] Evidence suggests that planning

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[18] W. J. Gauderman, E. Avol, F. Lurmann, N. Kuenzli, F. Gilliland, J. Peters, R. McConnell (2014), Childhood Asthma and Exposure to Traffic and Nitrogen Dioxide, *Epidemiology* 16, No. 6; Traffic and Air Pollution Most Significant Triggers of Heart Attacks Worldwide, News. January 09, 2014, https://www.hsph.harvard.edu/news/hsph-in-the-news/pollution-heart-attacks/; G. D'Amato, L. Cecchi. D'Amato M, G. Liccardi (2010), Urban Air Pollution and Climate Change as Environmental Risk Factors of Respiratory Allergy: An Update*," J Investig Allergol Clin Immunol* 20, no. 2: 95-102.; Harvard University, T.H. Chan School of Public Health, Traffic and Air Pollution Most Significant Triggers of Heart Attacks Worldwide, https://www.hsph.harvard.edu/news/hsph-in-the-news/pollution-heart-attacks/.

[19] W. J. Gauderman, H. Vora, R. McConnell, K. Berhane, F. Gilliland, D. Thomas, F. Lurmann, E. Avol, N. Kunzli, M. Jerrett, J. Peters (2007), Effect of Exposure to Traffic on Lung Development from 10 to 18 Years of Age: A Cohort Study, *The Lancet* 368.

[20] Beth Israel Deaconess Medical Center (2018), Traffic-related Pollution Linked to Risk of Asthma in Children, *ScienceDaily* 1, www.sciencedaily.com/releases/2018/05/180501193519.htm.; Rob McConnell, Talat Islam, Ketan Shankardass, Michael Jerrett, Fred Lurmann, Frank Gilliland, Jim Gauderman, Ed Avol, Nino Künzli, Ling Yao, John Peters, Kiros Berhane (2010), Childhood Incident Asthma and Traffic-Related Air Pollution at Home and School," *Environ Health Perspect* 118(7), 1021–1026, doi: 10.1289/ehp.0901232; D. Zmirou, S. Gauvin, I. Pin et al. (2004), Traffic Related Air Pollution and Incidence of Childhood Asthma: Results of the Vesta Case-Control Study, *Journal of Epidemiology & Community Health* 58:18-23.

[21] Aaron Sidder (2019), Does Air Pollution Reduce Cycling's Health Benefits? *National Geographic*, https://news.nationalgeographic.com/2016/08/bicycles-air-pollution-health-new-york-city-columbia-university/.

[22] Annunziata Faustini, Matteo Renzi, Ursula Kirchmayer, Maria Balducci, Marina Davoli, Francesco Forastiere (2018), Short-term Exposure to Air Pollution Might Exacerbate Autoimmune Diseases, *Environmental Epidemiology* 2, no. 3, doi:10.1097/ee9.0000000000000025.; Marianthi-Anna Kioumourtzoglou, Raz Raanan, Ander Wilson, Ronen Fluss, Ronit Nirel, David Broday, Yuval, Michele Hacker, Thomas McElrath, Itamar Grotto, Petros Koutrakis, Marc Weisskopf (2019), Traffic-related Air Pollution and Pregnancy Loss," *Environmental Epidemiology* 30,: 4-10. doi: 10.1097/EDE.0000000000000918.; Jordi Sunyer, Elisabet Suades-González, Raquel García-Esteban, Ioar Rivas, Jesús Pujol, Mar Alvarez-Pedrerol, Joan Forns, Xavier Querol, and Xavier Basagaña (2017), Traffic-related Air Pollution and Attention in Primary School Children, *Epidemiology* 28, no. 2, 181-89, doi:10.1097/ede.0000000000000603.; T. Sanchez, D. Gozal, D. Smith, C. Foncea, C. Betancur, P. Brockmann (2017), Association between Air Pollution and Sleep Disordered Breathing in Children, *Sleep Medicine* 40, doi:10.1016/j.sleep.2017.11.117.

for active transportation should factor locations with higher concentrations of air pollution as well as populations that are disproportionately impacted by traffic-related pollution.

## Areas of Need

In addition to priority projects, the MPO identified general bicycle and pedestrian strategies, policies, and programs needed to improve the multimodal transportation system in Pasco County. The MPO adopted a Multi-Use Trail Plan for Pasco County and coordinated its connectivity with adjacent counties. The Multi-Use Trail Plan reflects existing trails, funded trails, and conceptual trails for when funding becomes available and is illustrated in Map 8-4. In contrast, a detailed sidewalk and bicycle facility improvement plan has not been developed for 2045 LRTP; however, the MPO is committed to developing a comprehensive Pedestrian and Bicycle Facility Master Plan. Highlights of the proposed multi-use trail, sidewalk, and bicycle facility projects include the following:

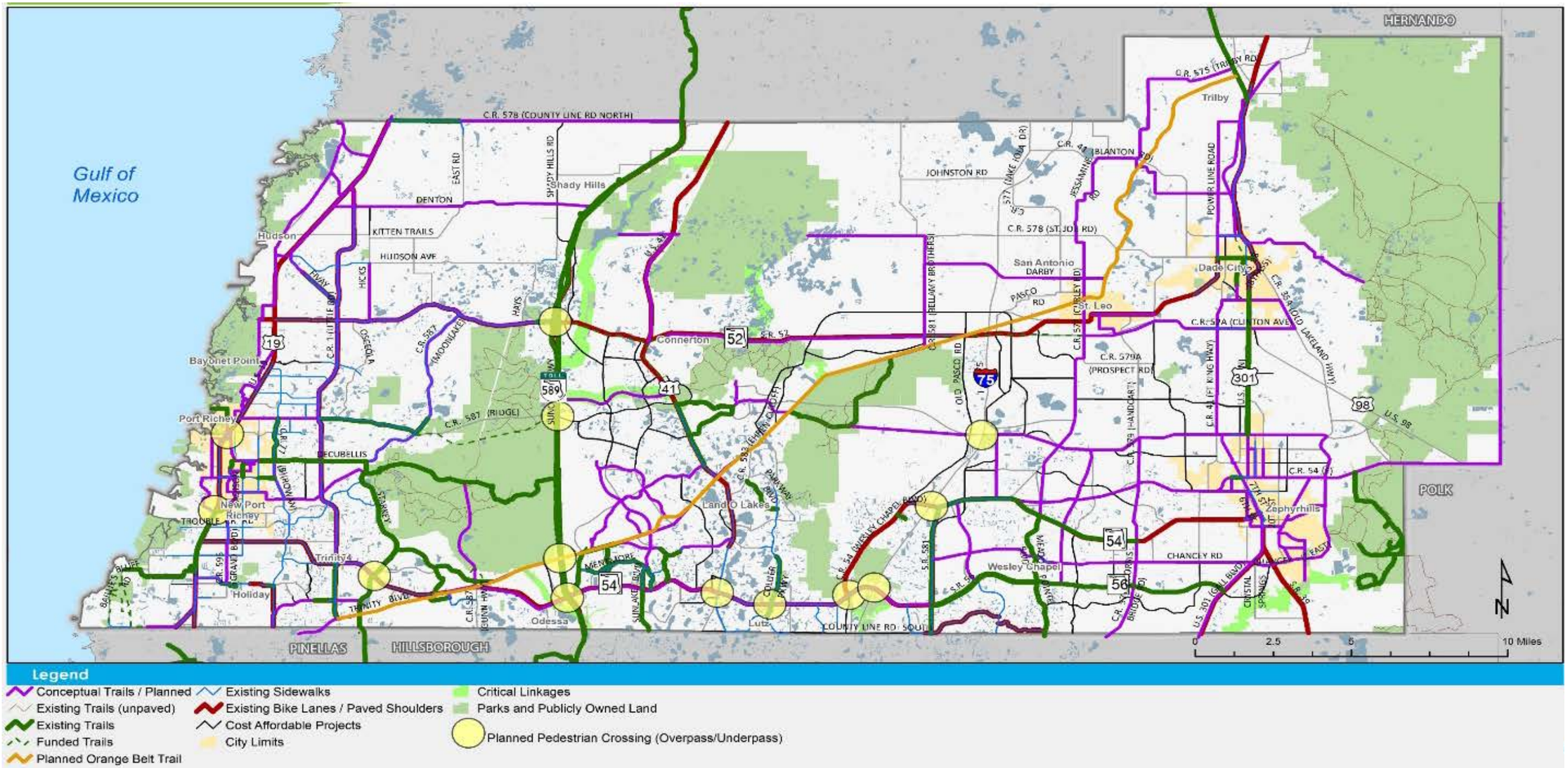
### Priority Local Active Transportation Projects (Sidewalks/Trails)

Through the MPO's Transportation Improvement Program, a list of priority projects was identified for funding through the Transportation Alternatives funding program as shown in Table 8-4.

**Table 8-4: Priority Local Bicycle/Pedestrian (Active Transportation) Projects**

| Project Location | Project Limits | Project Description | Project Status |
|---|---|---|---|
| River Gulf Rd/James Clark | Grand Blvd/Bayview St to under US-19 | Cotee River Bridge Crossing | Feasibility currently underway |
| Old CR 54 | Little Rd to SR-54 | Sidewalk | Construction funded in FY 2023 |
| Eiland Blvd | N of SR-54 to Handcart Rd | Multi-use Path | ROW verification needed |
| Grand Blvd | Mile Stretch Dr to SR-54 | Multi-use Path | Construction funded in FY 2021 |
| Fort King Rd/17th St | Morningside Dr to Coleman Ave | Safe Routes to School Sidewalk | Candidate submitted in 2018 |
| Regency Park Blvd | US-19 to Cherry Creek Ln | Sidewalk | ROW verification needed |
| Eiland Blvd | Handcart Rd to US-301 | Multi-use Path | ROW verification needed |
| Geiger Rd | Eiland Blvd to US-301 | Multi-Use Path | ROW verification needed |
| Zimmerman Rd | Ranch Rd to SR-52 | Safe Routes to School Sidewalk | Candidate submitted in 2018 |
| Ranch Road | W of Martha Ave/US-19 to Hanks Ln | Sidewalk | ROW to be funded in 2020 |
| Old Dixie Hwy | Gulf Way to Race Track Rd | Multi-use Path | ROW verification needed |
| Mitchell Blvd | Trinity Oaks Blvd to Seven Spgs Blvd | Multi-use Path | TA application submitted 2019 |
| School Road | US-41 to Community Center Dr | Sidewalk | ROW verification needed |
| Wire Rd | Pretty Pond to CR 54 | Multi-use Path | ROW verification needed |
| Leonard Rd | Henley Dr to US-41 | Sidewalk | ROW verification needed |
| Jasmine Rd | US-19 to Little Rd | Sidewalk | ROW verification needed |
| Centennial Rd | US-301 to Newsome RD | Sidewalk | ROW verification needed |
| Darlington Rd | US 10 to Hama Dr | Sidewalk | ROW verification needed |
| Ballantrae Blvd | Straton Place to Mentmore Blvd | Safe Routes to School Sidewalk | Candidate submitted in 2018 |
| 17th St | Meridian Ave to CR 41 | Sidewalk | ROW verification needed |
| Perrine Ranch Rd | E of Grand to Mountain Ash Way | Sidewalk | ROW verification needed |
| Old Dixie Highway | N of Brady St to Gulf Way | Multi-use Path | ROW verification needed |

**Map 8-4: Existing, Planned and Future Bicycle and Pedestrian Facilities**



### *Priority Regional Trails*

The MPO has also identified regional trail projects through coordination efforts with the MPO CCC's Regional Multi-use Trail (MUT) Committee, which includes the West Central Florida MPOs (Pasco, Pinellas, Hillsborough, Hernando/Citrus, Sarasota/Manatee, and Polk), TBARTA, and the Tampa Bay TMA Leadership Group. The priority projects in Pasco County identified through this effort are shown in Table 8-5.

**Table 8-5: Priority Local Bicycle / Pedestrian (Active Transportation) Projects**

| Project Location | Project Limits | Project Description | Project Status |
|---|---|---|---|
| Starkey Gap | N of SR-54 to Pinellas Co | Trail | Construction underway |
| Coastal Anclote | Pinellas Trail to Anclote River Park | Trail | Construction underway |
| Suncoast Pkwy | SR-54 | Bicycle and Pedestrian Overpass | Construction funded FY 2021 |
| US-19 | Marine Parkway | Overpass | Funding identified through Penny for Pasco |
| Starkey Trail | S of SR-54 to N of SR-54 | Trail Overpass | Currently under design |
| Suncoast Pkwy | SR-53 | Bicycle and Pedestrian Overpass | Construction funded in FY 2023 |
| Withlacoochee State Trail | Hardy Trail to N of Withlacoochee State Trailhead | Trail Extension | Construction funded in FY 2023 |
| Orange Belt | Trinity Blvd to Withlacoochee State Trailhead | Trail | Construction funded in FY 2023 |

### *Policy Considerations*

Active transportation systems have the potential to reduce the many costs associated with automobile centric transportation systems in terms of public health. Planning that involves good design and strategic location is essential to realize the full health benefits of active transportation systems. The following activities have been identified as opportunities to further the planning and implementation of active transportation projects through the LRTP:

- The county is updating its roadway cross-section designs to include appropriate bike/ped facilities, which should be built in the future as part of new road construction and road upgrades. A number of existing roads, not planned for improvement or widening, are substandard in terms of biking and walking infrastructure. Examples include low-volume two-lane roads with rural cross-sections that lack walkable, bikeable shoulders, and six-lane arterials that lack multi-use paths and/or sidewalks. The need is not for planning, it is for funding of PE, design, construction, and, in some cases, ROW acquisition. Existing, known funding sources will be hard-pressed to fund these huge retrofit needs.
- Pasco County and the incorporated municipalities lack an overall bike/ped plan that identifies needs, specifies the projects to fulfill them, and sets priorities. The Greenways/Blueways/Trails map of the Pasco County Comprehensive Plan does not address the deficient multimodal infrastructure on existing arterials and collectors and lacks specific alignments or descriptions for specific key projects which delays implementation and funding.

- A comprehensive bike/ped plan would be helpful for identifying key corridor connections rather than responding solely on the basis of comments and policy decisions.
- The plan should be done based on the market areas and city-by-city in an effort to identify the appropriate infrastructure needs based on the context of the community and users.
- The plan would consider needs (e.g., segments where bike/ped facilities are missing/substandard), opportunities and constraints (e.g., corridors where ROW is available, locations where wetlands are an obstacle), and, in some cases, alternatives (e.g., places where bike/ped needs might be met via an alternative parallel facility).
- It would identify preferred solutions/projects and generally prioritize them based on utility (e.g., linkage to major residential areas, attractors).

- An opportunity to build out the county's bike/ped system is linking discontinuous local street networks via short segments of new paths or trails. Low-speed, low-volume local streets can safely accommodate bikes or shared lane markings without the need for additional facilities, but poor connectivity requires out-of-direction travel, a serious disincentive to bike use. New links would need to be built in most cases through existing developed areas.
- Many substandard collectors and arterials from a bike/ped standpoint are State facilities. In most cases, these provide bike lanes, but have negligible use given the high auto-traffic volumes and speeds, and riders see them as dangerous. FDOT's recent identification of context classifications and appropriate scaled facilities have left existing roadways with substandard facilities. For example, multi-use paths next to the roadway or buffered facilities are a more appropriate facility in the high-speed arterial context. As so much of the county's development is focused on state corridors, it is imperative that the County and FDOT ensure that adequate bike/ped facilities are constructed if multimodal transportation goals of the LRTP and comprehensive plan are to be attained.

## Environmental Mitigation and Resiliency

Constant competition exists between the natural and built environments, and the transportation system's interaction with natural systems is no different—it moves people and goods, and the natural system moves animals, water, and energy. In the exploration of the potential conflict between these two systems in Pasco County, the MPO strives to answer two fundamental questions:

- **How is the environment vulnerable to the transportation system?** The environment typically is thought of as being in peril because of increasing development. In some instances, this has certainly been the case. When the transportation system grows, increased development follows, often at the expense of the natural environment as roads are paved through forests and over wetlands, habitats are fragmented, and water quality is degraded. These negative impacts reduce overall biodiversity, which cause many physical and economic effects. Poor water quality detracts from potential tourism dollars being spent in natural areas as visitors travel elsewhere. Increased impervious surfaces create more stormwater runoff that swells rivers beyond their capacity, carving more sediment from upland areas and dumping them into estuaries and bays. Degraded water quality stresses aquatic habitats, resulting in problems such as low fish stocks at fisheries. Roads that cut through forests reduce and fragment habitat, forcing a wide variety of organisms to share less resources and requiring them to learn how to crossroads without being

injured or killed. Vehicle emissions pollute the air, and uncontained hazardous materials contaminate groundwater used for drinking water supply.

- **How is the transportation system vulnerable to the environment?** The transportation system also is affected by the environment. Florida is under constant threat of storm surge and high winds from hurricanes and tropical storms from June through November. As a coastal county, Pasco must take extra precautions to ensure that the transportation system can adequately handle the evacuation needs of its residents in the event of a hurricane or other major coastal storm. In addition to major storms, sea-level rise threatens to slowly but surely flood coastal areas. Groundwater movement through the subsurface creates sinkholes that can swallow entire sections of roads. Storms often bring down traffic signs and signals, flood roads, weather away infrastructure, and destroy cultural and historic resources.

## MPO Response to Environmental Coordination

In partnership with local and regional agencies, the Pasco County MPO evaluated the impact of transportation decisions and considered multiple aspects of the natural environment during the development of the MOBILITY 2045 LRTP.

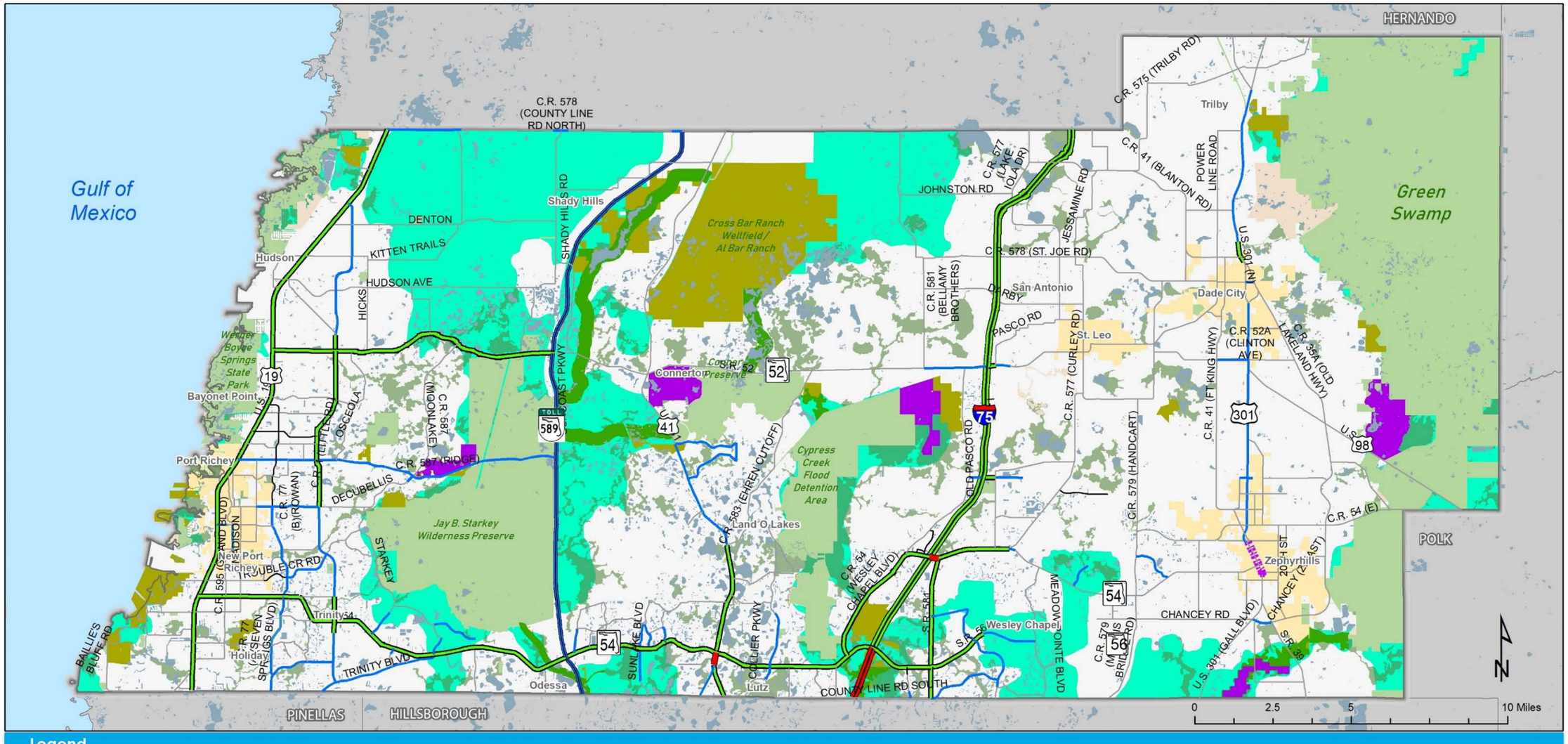
### *Pasco County Environmental Protection and Preservation*

Pasco County entered into a Settlement Agreement in August 2000 with various litigants that required modifications to the Comprehensive Plan, including the Conservation Element. Pasco agreed to initiate a study to evaluate the establishment of wildlife corridors between major wellfields and existing public lands in Pasco and adjacent counties, including identification of the most appropriate mechanism for establishing the corridor and protection measures for the corridor. This resulted in the development and identification of two programs for environmental protection based on the 2002 Habitat Study. Incorporation of the locally-identified environmental protection areas are shown on Map 8-4. The 2002 Habitat Study identified unique areas in the county that warrant special consideration because of their ecological significance, classified as Ecological Planning Units (EPUs):

- Coastal Marshes EPU
- Hernando Sandhills EPU
- Pithlachascotee/Anclote Watershed EPU
- Starkey/Hillsborough Linkage EPU
- Crossbar Sandhills EPU
- Cypress Creek EPU
- Hillsborough River EPU
- Withlacoochee River EPU
- Agricultural Reserve Lands

These areas were determined to be representative of the historic biological diversity in the county. Methods for protection and conservation of ecologically significant natural resources within EPUs include acquisition, Comprehensive Plan restrictions, developer incentives, and partnerships with other resource agencies. The Pasco County Comprehensive Plan Conservation Element specifically includes Objective CON 1.5 to address the EPUs.

**Map 8-5: Pasco County Environmental Protection Areas**




**Legend**

**Number of Lanes**
- 2 Lane Divided
- 2 Lane Undivided
- 2 Lane One Way
- 4 Lane Undivided
- 4 Lane Divided
- 4 Lane Freeway
- 6 Lane Divided
- 6 Lane Freeway
- 8 Lane Divided
- 8 Lane Freeway
- 10 Lane Freeway
- City Limits
- Equity Area
- ACOE Mitigation Bank Areas
- Critical Linkages
- Parks and Publicly Owned Land
- Conservation Areas
- Wetlands
- ELAMP
- Environmental Planning Unit

Source: TBRPM V9.0 2045 Needs 2.1

### *Environmental Land Acquisition and Management Program (ELAMP)*

ELAMP was created in July 2004 when Pasco County adopted Referendum No. 04-233. ELAMP is responsible for purchasing environmentally-sensitive lands throughout the county. Funding is provided through a portion of the Penny for Pasco surtax. Partnerships with State and Federal agencies are sought to supplement the Penny funds. Since 2005, approximately 5,000 acres have been acquired under ELAMP (https://www.pascocountyfl.net/3788/ELAMP).

### *Regional Environmental Consultation Workshop*

On June 21, 2019, the Hillsborough, Pinellas, Pasco, and Hernando/Citrus MPOs held a regional workshop to discuss with Federal, State, and Tribal wildlife, land management, and regulatory agencies potential environmental mitigation strategies to include as a part of the LRTP updates. For transportation projects, the LRTP is required to consider potential environmental mitigation activities, ways in which environmental impact from transportation projects can be avoided, minimized, or mitigated.

For highway projects, the LRTP must include a discussion on the types of potential environmental mitigation activities and potential areas to carry out these activities. The environmental mitigation discussion in the LRTP must be developed in consultation with Federal, State and Tribal wildlife, land management, and regulatory agencies. The discussion can be at a system-wide level to identify areas where mitigation may be undertaken and what kinds of mitigation strategies, policies, and/or programs may be used when these environmental areas are affected by projects in the LRTP. This discussion in the LRTP identifies broader environmental mitigation needs and opportunities that individual transportation projects might take advantage of later.

At the workshop, the following questions were posed to workshop participants:

- What policies/programs/activities does your agency currently undertake to mitigate
- development impacts to the environment?
- What limitations are there for each of these areas?
- Is there no capacity remaining in mitigation banks?
- Is there no consideration for new mitigation banks in the future?
- Is there limited success with certain activities?
- How should critical habitat considerations be addressed to protect wildlife?
- Are you aware of any untapped opportunities to enhance environmental mitigation activities?

Outcomes from this workshop were incorporated into the environmentally-sensitive areas depicted on Map 8-4. These areas were used in prioritizing transportation projects for incorporation into the Cost Affordable LRTP. Successful examples of environmental mitigation were mentioned during the workshop as were additional concepts and opportunities for future efforts. Some items mentioned include:

- Success of the seagrass restoration project with Courtney Campbell Causeway reconstruction
- How critical habitats should be addressed when they are impacted by transportation projects
- Studies available that show how the Tampa Region's highway projects affect local wildlife, and best ways to mitigate further wildlife impacts

### *Resilient Tampa Bay*

In the Tampa Bay region, extreme weather events such as storm surge, flooding, and heavy precipitation events are threatening transportation facilities across the region, creating potential risks of damages in infrastructure, increases in repair and maintenance costs, and disruption to normal operations of transportation systems. Due to climate trends, this region faces additional threats from increasing temperatures, intensifying precipitation events, and rising sea levels. As the Tampa Bay region continues to face these weather and climate challenges, new Federal requirements state that future LRTP updates must address "improving the resiliency and reliability of the transportation system and reducing or mitigating the stormwater impacts of surface transportation...."

To assist in meeting the new Federal mandate and to support State, regional, and local organizations to integrate appropriate strategies into their transportation planning process, the Resilient Tampa Bay: Transportation Pilot Program Project assessed the Tampa Bay region's exposure/vulnerability to potential extreme weather challenges and provides strategies to prepare for, respond to, and recover from those impacts. The main objective of the assessment was to provide adaptation strategies, or projects, for inclusion in the LRTP. With that in mind, steps were taken throughout the study to categorize and prioritize transportation infrastructure, namely roads. The following steps outline the analyses results for use in LRTP preparation as well as other purposes:

- To understand the potential impacts from extreme weather and climate change, 11 scenarios were developed to model hurricanes, sea-level rise, and heavy precipitation events and their combined effects in the three-county Tampa Bay region. The resulting information is available to partner agencies for separate or supplemental analysis, such as by Local Mitigation Strategy working groups.
- To perform detailed transportation and econometric analysis, two scenarios were chosen—a Category 3 Storm plus a High (NOAA) sea-level rise projection and 9 inches of precipitation/rain over 24 hours (one day). High, moderate, and low scores (vulnerability) were assigned to roads depending on the depth of potential inundation.
- To categorize roads by importance, a stakeholder survey was conducted to determine priorities among 11 different items, such as traffic volumes, population density, proximity to important facilities like hospitals and power plants, and access to vehicles (zero-car households). High, moderate, and low criticality classifications were assigned based on a road's score (criticality).
- An adaptation toolbox was created to identify various adaptation strategies and explain the benefits and constraints of each. The toolbox describes the strategies most appropriate for specific threats and conditions in which each works best.
- To determine how best to identify and cost estimate adaptation strategies for roads in the region, the MPOs identified six representative projects, two in each county, using criticality and vulnerability information. The purpose was to perform high level concept design for the six projects, develop planning level cost estimates for the projects, and then use the information to apply adaptation strategies with associated costs to all vulnerable roads in the region.

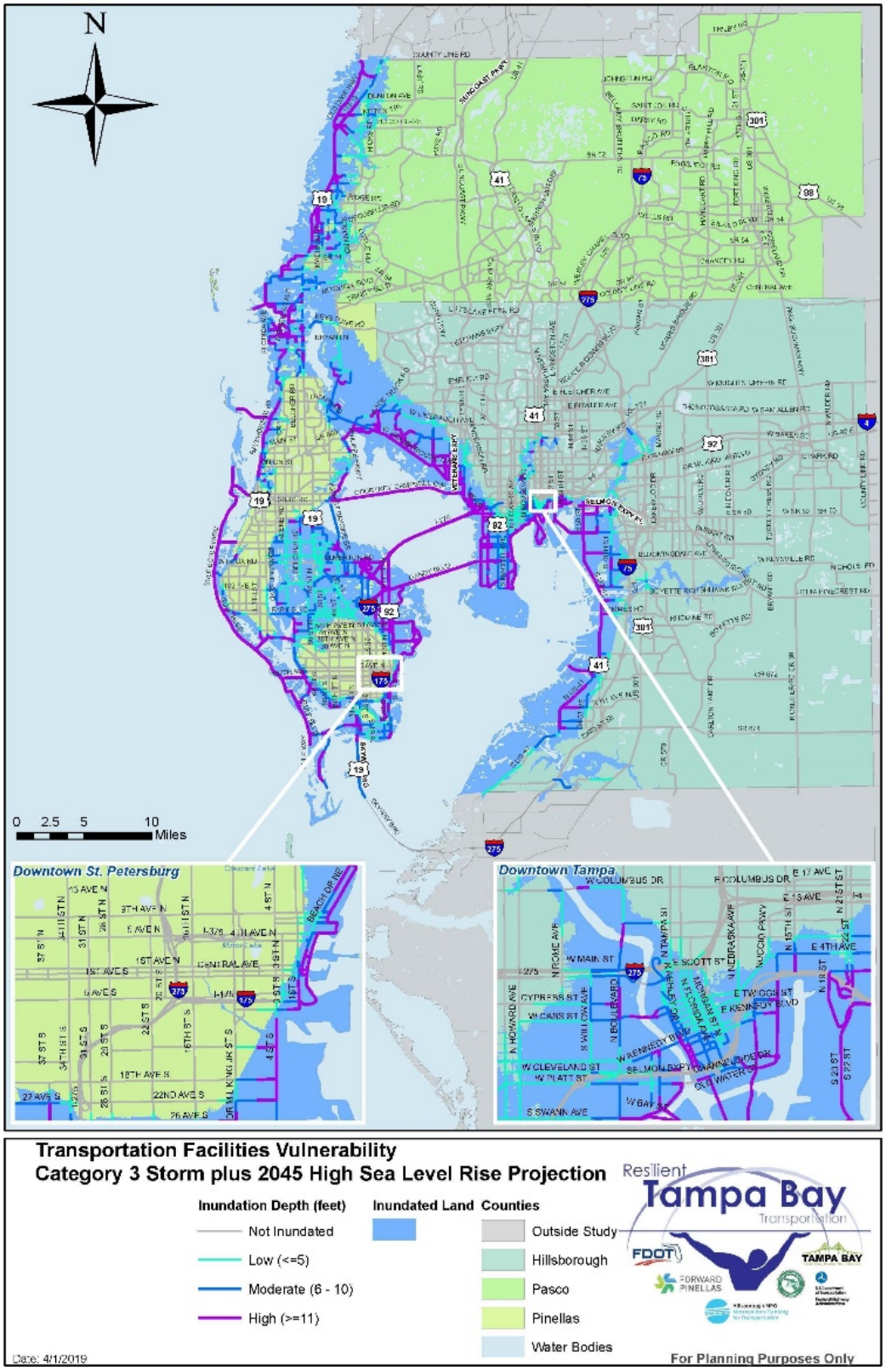
- Transportation facilities vulnerable to weather-related events were identified for both scenarios. Map 8-6 shows the vulnerable facilities from the Category 3 storm scenario, and Map 8-7 shows the vulnerable facilities from the 9-inch precipitation event.
- There are nine combination of criticality and vulnerability (Figure 8-5). High-resilience projects are termed those with High or Moderate criticality and High or Moderate vulnerability. These classifications are used to assign adaption strategies and associated costs.
- To evaluate the benefits vs. costs of implementing adaptation strategies, econometric analyses were performed that evaluated the impacts from the loss of each (individually) representative project and the impacts of all roads impacted under each of the weather related scenarios.
- To evaluate current short-term spending on maintenance, drainage, and coastal projects, the Capital Improvement Program (CIP) budgets for the counties, municipalities, and FDOT were assessed. Fair amounts are spent on routine road maintenance and drainage, with beach nourishment and other coastal projects also being implemented. The drainage and coastal adaptation strategies identified function like existing projects through local/regional programs; however, enhancements to improve the roads (beyond maintenance) are beyond what is typically considered.

**Figure 8-5: Matrix for Identifying Critical and Vulnerable Transportation Infrastructure**

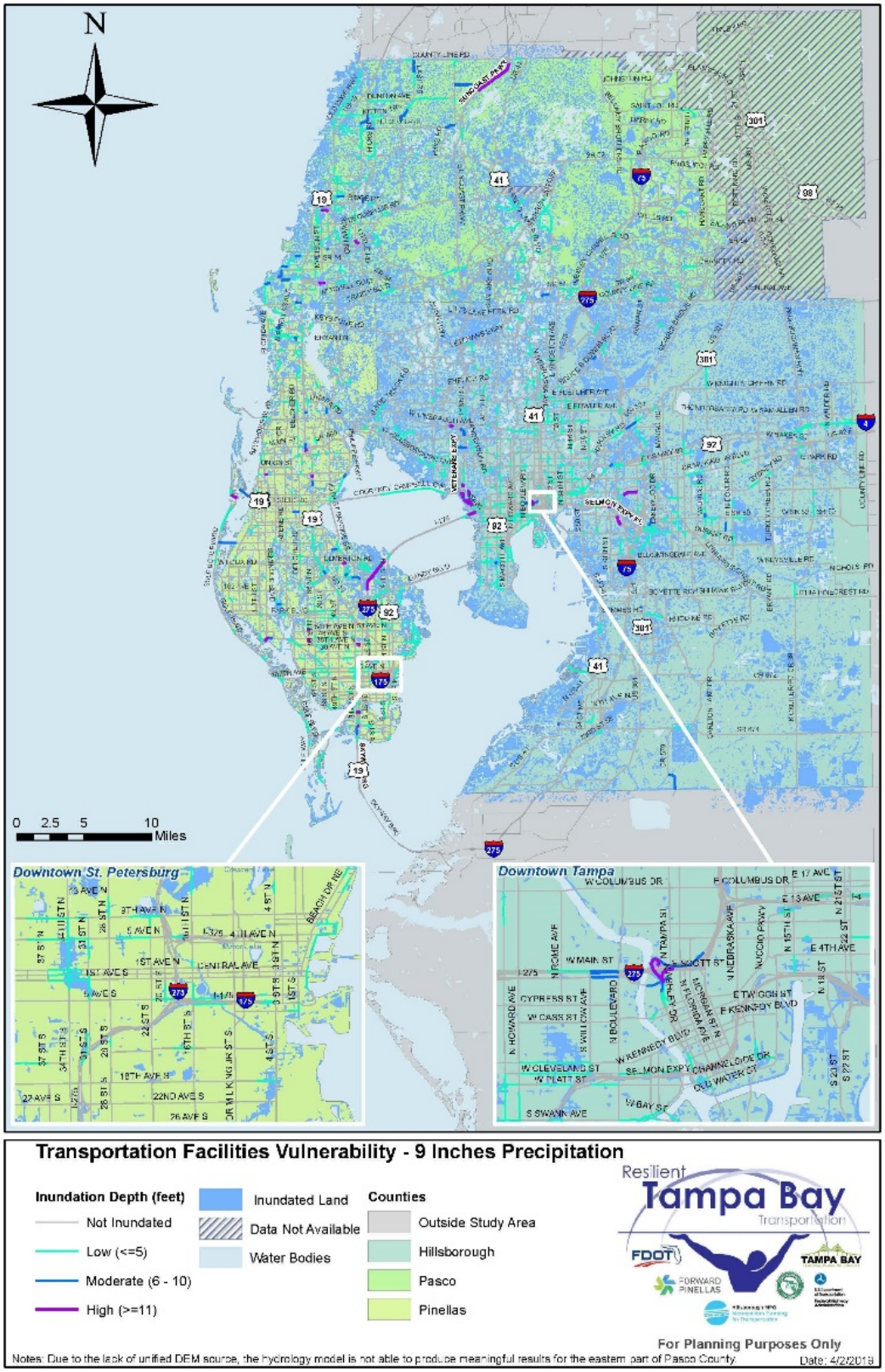
| Vulnerability | Low Criticality | Moderate Criticality | High Criticality |
|---|---|---|---|
| High | High Vulnerability, Low Criticality | High Vulnerability, Moderate Criticality | High Vulnerability, High Criticality |
| Moderate | Moderate Vulnerability, Low Criticality | Moderate Vulnerability, Moderate Criticality | Moderate Vulnerability, High Criticality |
| Low | Low Vulnerability, Low Criticality | Low Vulnerability, Moderate Criticality | Low Vulnerability, High Criticality |

Each MPO in the Tampa Bay Region selected two representative projects for in-depth analysis of adaptation strategies, economic impacts, and benefits and cost comparisons. In Pasco County, the projects selected were on SR-54 and US-19. The following discussion is an overview of each project and the assessment conducted as part of the Resilient Tampa Bay Study.

**Map 8-6: Vulnerable Transportation Facilities under Category 3 Scenario**



**Map 8-7: Vulnerable Transportation Facilities under 9-inch Precipitation Scenario**



### SR-54

SR-54 is a 12.8-mile stretch of road that goes through several elevation changes, varying from a low of 30 ft to a high of 65 ft over its distance. The extended length of the road travels through multiple land uses from highly-developed residential areas to open areas. This leads to a variety of potential interventions, each of which may be more viable at different areas. In terms of vulnerability, the road is primarily at risk from a Category 3 event in the more populated area around Seven Springs Blvd. At this intersection, it may be most appropriate to widen existing drainage ditches to reduce the threat from a hurricane event. However, it is also appropriate to develop solutions that may be appropriate going forward, such as using vegetation or green infrastructure to reduce the vulnerability of areas that may be developed at a future time.

- **Conditions** – west end has commercial areas but large open areas on both sides; evidence of road wear on asphalt
- **Concerns** – little protection from inundation and surge in any area
- **Adaptation Options**:
    - **Option A** – mill 1 in., resurface with 3 in. new asphalt, resulting in 2 in. additional pavement; cost: $6,486,000
    - **Option B:** – widen existing ditch on one side to 10-ft flat bottom with 4:1 side slopes, 6-ft depth; cost: $6,003,000
    - **Option C** – raise median, add soil mat to protect from erosion; cost: $3,938,000
- **Recommendation and Observations:**
    - Funding needed for recommended options (A+B+C): $16,427,000
    - Regional economic impacts of having SR-54 out of service for two days in the first year afterward is $5.1 million, approximately one third the costs of recommended adaptation strategies. Approximately $2.5 million, $1.8 million, and $0.8 million in benefits would accrue to Hillsborough, Pinellas and Pasco counties, respectively. SR-54 is a large project with different characteristics in the west and east. Refining the project into smaller segments would likely show cost-effectiveness in the western areas. The eastern area of SR-54 is in a development phase and has an opportunity to implement transportation infrastructure to address potential perils of storms, so that future retrofits are not needed.

### US-19

US-19 is a road segment of 8.45 miles that runs along an inland waterway, adjacent to properties that face the waterway. It has a drop of elevation of about 15 ft from the north to the south. There is little protection in place to guard against a Category 3 hurricane and a precipitation event. Development along the road limits the options that may be implemented without incurring additional charges for impacting locally developed areas; however, the potential flooding makes raising the profile of the road a viable alternative to protect it as well as adjacent properties.

- **Conditions** – both sides of road have light commercial development; west side is open to residential areas

- **Concerns** – very little protection in place; wide streets and corridors provide little protection.
- **Adaptation Options**:
  - **Option A** – add soil mat on both sides, 25-ft width and raise profile of roads; cost: $136,273,000
  - **Option B** – enhance natural shoreline; cost: $16,900,000
  - **Option C** – add soil mat on both sides, 25-ft width; cost: $4,563,000
  - **Option D** – raise profile 4 ft at major intersections for 500 ft in all directions, assume two per mile; cost: $49,582,000
- **Recommendation and Observations:**
  - Funding needed for recommended option (A): $136,273,000
  - Raising the profile of US-19 is a major project that may be difficult to fund. As such, an alternate project would be to raise the intersections first and later raise the segments. As such combining options (B+C+D) for a cost of $71,045,000 is an alternate consideration. The regional economic impacts of having US-19 out of service for two days in the first year afterward is $25.6 million, approximately one fifth the cost of recommended adaptation strategies and less than one third the cost of the alternate recommendation. Approximately $4.2 million, $12.8 million, and $8.6 million in benefits would accrue to Hillsborough, Pinellas and Pasco counties, respectively. Raising the profile of the road is an expensive recommendation; however, it could potentially allow for additional emergency evacuation and response and recovery actions. A higher road may have the benefit of protecting property and people east of US-19 if it were to act as a surge buffer.

Additional technical documentation supporting Chapter 8 can be found in the associates standalone Appendix.

- Appendix 8-1 Transportation Capital Improvement Projects Map 2019-2033
- Appendix 8-2 Transit Needs Development and Prioritization
- Appendix 8-3 Pasco Needs Plan Projects
- Appendix 8-4 Unit Costs – Pasco County Roadways
- Appendix 8-5 Units Cost per Centerline Mile – FDOT
- Appendix 8-6 MOBILITY 2045 Needs Plan Level-of-Service Report
- Appendix 8-7 Roadway Capacity Needs Plan Cost Estimates

MOBILITY 2045

Pasco County MPO
Transportation Plan

# Chapter 9
# Financial Resources

# Introduction and Overview

This chapter documents the assumptions used to develop unit costs for estimating project costs and future revenues for the MOBILITY 2045 LRTP. These assumptions provide the Pasco MPO with a reasonable estimate of future revenues that can be used to fund the multimodal transportation projects included in MOBILITY 2045. Current and potential new revenue sources are discussed. Consistent with the requirements of Title 23, USC Section 134, the revenues identified for MOBILITY 2045 are reasonably expected to be available during the planning period through 2045. This report includes two major sections:

- **Unit Cost Assumptions** summarizes the assumptions used to develop unit cost estimates for all types of transportation improvements included in the LRTP. Assumptions associated with the unit costs for both capital costs and operating and maintenance costs are presented for each mode.
- **Revenue Projections** presents the assumptions used to develop revenue projections for 2019 through 2045. Federal, State, and local revenues were projected for capital and operating/ maintenance programs. This section includes additional projections provided by FDOT District 7.

# Unit Cost Assumptions

This section summarizes the unit costs used to develop planning level project cost estimates for the MOBILITY 2045 Plan. Cost assumptions are presented for each mode of travel in the LRTP, including roadway, bicycle, pedestrian, and transit facilities. The unit cost assumptions and resulting project cost estimates were developed for the 2045 Policy Constrained Needs Plan and the 2045 Cost Affordable Plan. Unit costs are based on current trends in construction projects. Each is further discussed and illustrated throughout this chapter.

## State Roadway Costs

The following documents the assumptions behind the project costs included in MOBILITY 2045 for State roads. All information for State roads is consistent with the unit costs produced by FDOT District 7. Table 9-1 includes the unit costs for the individual roadway project types included in the MOBILITY 2045 LRTP:

- **Product Support** – Product support costs for State roads were estimated based on a percentage of the State road construction cost per centerline mile. Based on the *FDOT 2045 Revenue Forecast Handbook*, the product support costs which include both Project Development & Engineering (PD&E) and Preliminary Engineering (PE) are equivalent to 22 percent of the State construction cost per centerline mile.
- **Right-of-Way** – ROW acquisition costs for State arterials in the LRTP were based on the construction cost per centerline mile from the FDOT District 7 Long Range Estimates Roadway Costs, June 2018. FDOT staff indicated that the ROW cost for a State road capacity expansion improvement should be estimated at 100 percent of the construction cost per centerline mile.
- **Construction** – Similar to ROW costs, construction cost estimates for State arterials were based on the cost per centerline mile from the FDOT District 7 Long Range Estimates Roadway Costs,

(June 2018). Factors for considering additional components of the construction phase of a project also were included in the unit costs estimates prepared for the LRTP. These factors include 10 percent for MOT, 10 percent for mobilization, and a final scope contingency of 25 percent.

**Table 9-1: State Roadway Cost per Centerline Mile – FDOT D7**

| Improvement Type | Product Support[(1)] | Right-of-Way[(2)] | Construction[(3)] | Total |
|---|---|---|---|---|
| ***Rural Section Design - Cost per Centerline Mile*** | | | | |
| New construction, 0 to 2 lanes | $1,309,000 | $5,948,000 | $5,948,000 | **$13,205,000** |
| New construction, 0 to 4 lanes | $2,174,000 | $9,884,000 | $9,884,000 | **$21,942,000** |
| New construction, 0 to 6 lanes | $2,776,000 | $12,616,000 | $12,616,000 | **$28,008,000** |
| Lane addition, 2 to 4 lanes | $2,174,000 | $9,884,000 | $9,884,000 | **$21,942,000** |
| Lane addition, 2 to 6 lanes | $2,776,000 | $12,616,000 | $12,616,000 | **$28,008,000** |
| Lane addition, 4 to 6 lanes | $2,776,000 | $12,616,000 | $12,616,000 | **$28,008,000** |
| Lane addition, 6 to 8 lanes | $2,776,000 | $12,616,000 | $12,616,000 | **$28,008,000** |
| ***Urban Section Design - Cost per Centerline Mile*** | | | | |
| New construction, 0 to 2 lanes | $1,976,000 | $8,980,000 | $8,980,000 | **$19,936,000** |
| New construction, 0 to 4 lanes | $2,799,000 | $12,724,000 | $12,724,000 | **$28,247,000** |
| New construction, 0 to 6 lanes | $3,414,000 | $15,517,000 | $15,517,000 | **$34,448,000** |
| Lane addition, 2 to 4 lanes | $2,799,000 | $12,724,000 | $12,724,000 | **$28,247,000** |
| Lane addition, 2 to 6 lanes | $3,414,000 | $15,517,000 | $15,517,000 | **$34,448,000** |
| Lane addition, 4 to 6 lanes | $3,414,000 | $15,517,000 | $15,517,000 | **$34,448,000** |
| Lane addition, 6 to 8 lanes | $3,414,000 | $15,517,000 | $15,517,000 | **$34,448,000** |

*(1) Source: Product support is estimated at 22% of construction based on the 2045 Revenue Forecast Handbook.*
*(2) Source: Right-of-Way is estimated at 100% of construction based on discussions with FDOT and MPO staff.*
*(3) Source: FDOT District 7 LRE Roadway Costs, June 2018.*

## County Roadway Costs

Developing the unit costs for County (non-State) roadways used the cost calculation methodology included in the Mitigation of Impacts section of Pasco County's Land Development Code (LDC), Section 901.5, and discussions with County staff regarding recent cost trends. The cost factors discussed were applied to unit costs for project types listed in FDOT District 7 Long Range Estimates (LRE) (June 2018). Table 9-2 includes the unit costs for individual project types considered for MOBILITY 2045. These costs are divided into categories based on urban or rural area types in which individual projects are located. The following individual assumptions were applied to the FDOT District 7 estimates to develop the MOBILITY 2045 construction costs for non-State roadways:

- **Design and Construction Engineering & Inspection (CEI)** – Design and CEI costs were estimated as a percentage of the subtotal construction cost for County roadway improvements. Based on discussions with County staff and consistent with the 2018 Multimodal Mobility Fee Update Study, design was estimated at 8 percent and CEI was estimated at 13 percent of the subtotal construction cost.
- **ROW** – ROW costs for County roads were estimated as a percentage of the subtotal construction cost for County roadway improvements. Based on discussions with County staff

and consistent with the LDC, ROW was estimated at 50 percent of the subtotal construction cost.

- **Construction** – Construction cost estimates were based on provisions in the Pasco County LDC. As outlined in the LDC, the construction cost for County roads was calculated at 90 percent of the subtotal construction cost from the FDOT District 7 LRE plus 10 percent contingency.

**Table 9-2: County Roadway Cost per Centerline Mile**

| Improvement Type | Design(1) | Right-of-Way(2) | Construction(3) | CEI(4) | Total |
|---|---|---|---|---|---|
| ***Rural Section Design – Cost per Centerline Mile*** | | | | | |
| New construction, 0 to 2 lanes | $343,000 | $2,141,000 | $4,711,000 | $557,000 | $7,752,000 |
| New construction, 0 to 4 lanes | $569,000 | $3,558,000 | $7,828,000 | $925,000 | $12,880,000 |
| New construction, 0 to 6 lanes | $727,000 | $4,542,000 | $9,992,000 | $1,181,000 | $16,442,000 |
| Lane addition, 2 to 4 lanes | $432,000 | $2,702,000 | $5,944,000 | $702,000 | $9,780,000 |
| Lane addition, 2 to 6 lanes | $727,000 | $4,542,000 | $9,992,000 | $1,181,000 | $16,442,000 |
| Lane addition, 4 to 6 lanes | $469,000 | $2,932,000 | $6,450,000 | $762,000 | $10,613,000 |
| Lane addition, 6 to 8 lanes | $585,000 | $3,656,000 | $8,044,000 | $951,000 | $13,236,000 |
| ***Urban Section Design – Cost per Centerline Mile*** | | | | | |
| New construction, 0 to 2 lanes | $517,000 | $3,233,000 | $7,112,000 | $840,000 | $10,862,000 |
| New construction, 0 to 4 lanes | $733,000 | $4,581,000 | $10,078,000 | $1,191,000 | $15,392,000 |
| New construction, 0 to 6 lanes | $894,000 | $5,586,000 | $12,289,000 | $1,452,000 | $18,769,000 |
| Lane addition, 2 to 4 lanes | $512,000 | $3,197,000 | $7,034,000 | $831,000 | $10,743,000 |
| Lane addition, 2 to 6 lanes | $894,000 | $5,586,000 | $12,289,000 | $1,452,000 | $18,769,000 |
| Lane addition, 4 to 6 lanes | $568,000 | $3,548,000 | $7,805,000 | $922,000 | $11,921,000 |
| Lane addition, 6 to 8 lanes | $665,000 | $4,155,000 | $9,141,000 | $1,080,000 | $13,961,000 |

*(1) Design estimated at 10% of subtotal construction based on data used in Mobility Fee Update, coordination with Pasco County Engineering Services, and Traffic Impact Study standards.*

*(2) ROW estimated at 50% of subtotal construction based on data used in Mobility Fee Update, coordination with Pasco County Engineering Services, and Traffic Impact Study standards.*

*(3) FDOT District 7 LRE Roadway Costs, June 2018; includes subtotal construction and scope contingency.*

*(4) CEI estimated at 13% of subtotal construction based on data used in Mobility Fee Update, coordination with Pasco County Engineering Services, and Traffic Impact Study standards.*

## Bicycle and Pedestrian Facility Costs

Bicycle and pedestrian facility costs for the MOBILITY 2045 LRTP, shown in Table 9-3, are based on cost figures established in the FDOT District 3 LRE and the FDOT District 7 LRE.

**Table 9-3: Non-Motorized Transportation Facility Costs**

| Component | Cost |
|---|---|
| ***Bicycle Facility Unit Costs*** | |
| Bike lane per mi (5-ft width, 2 sides)[1] | $216,000 |
| Multi-use trail per mi (12-ft width, 1 side)[2] | $517,000 |
| ***Pedestrian Facility Unit Costs*** | |
| Sidewalks per mi (5-ft width, 1 side)[2] | $254,000 |
| Sidewalks per mi (6-ft width, 1 side)[2] | $305,000 |

*[1]Source: FDOT District 3 LRE Roadway Costs, 2016. Costs inflated to 2019$.*

*[2]Source: FDOT District 7 LRE Roadway Costs, June 2018*

## Transit Capital and Operating Costs

As shown in Table 9-4, several assumptions were made to support forecasting of public transportation costs for the time period from 2019 through 2045 in the LRTP.

**Table 9-4: Transit Capital and Operating Cost Assumptions**

| Item | Unit | Base Year | Cost |
|---|---|---|---|
| Fixed-route operating enhancements | Per revenue hour | 2019 | $86.00 |
| Fixed-route operating enhancements | Per revenue mile | 2016 | $3.09 |
| Paratransit operating enhancements | Per revenue hour | 2019 | $27.00 |
| Paratransit operating enhancements | Per year | 2019 | $1,590,000 |
| Regular bus | Per vehicle | 2019 | $500,000 |
| Paratransit vehicle cost | Per vehicle | 2019 | $90,000 |
| Support vehicle (transit/paratransit) cost | Per vehicle | 2019 | $45,000 |
| Bus stop improvement | Per stop | 2019 | $125,000 |
| Bus stop improvement, ADA | Per stop | 2019 | $150,000 |

*Source: Access Pasco TDP, 2018*

# Revenue Projections

The MOBILITY 2045 Plan includes revenue projections from Federal, State, and County sources. This section describes the revenue sources used to develop the 2045 Cost Affordable Plan. Table 9-5 presents a summary of the total projected revenues, including a breakout of existing sources and potential future revenues. Developed in coordination with FDOT.

Existing revenues are insufficient to address the County's future mobility needs that result from future growth in population and employment expected by 2045. In 2004, voters in Pasco County approved a one-penny Local Government Infrastructure Surtax (Penny for Pasco). In 2012, 70 percent of voters approved the continuation of this surtax, extending the effective period for 10 years, through December 2024.

In consideration of extending the Penny for Pasco revenues through 2045, a sensitivity analysis was performed to identify potential new revenues by adding the Charter County and Regional Transportation Surtax, a continuation of the assumption used to develop the MOBILITY 2040 LRTP. This analysis included a review of five potential scenarios that considered alternative local transportation revenues, continuation of the Penny for Pasco, and options for adding the Charter County and Regional Transportation Surtax.

**Table 9-5: Revenue Projection Summary – Year-of-Expenditure Revenues (millions)**

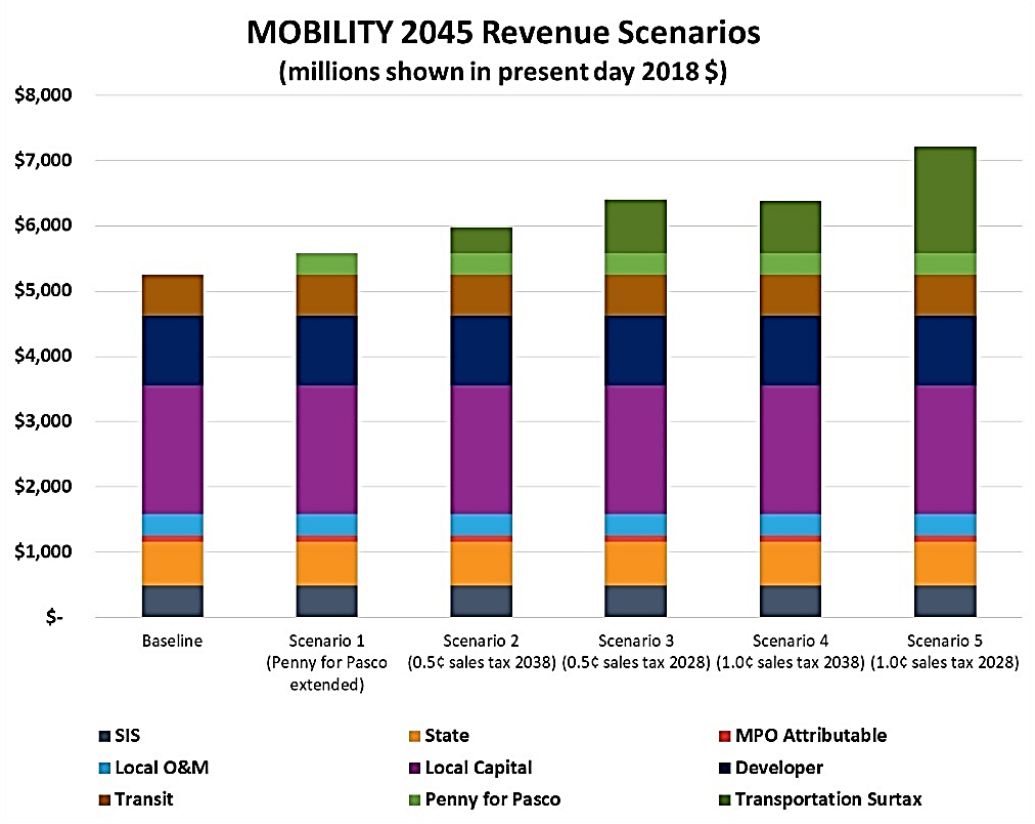
| Funding Source | 2025 | 2026-2030 | 2031-2035 | 2036-2045 | Total |
|---|---|---|---|---|---|
| ***Federal/State Revenues Allocated to Pasco MPO*** | | | | | |
| Other Roads Construction & ROW – Capacity | $29.15 | $177.06 | $191.03 | $397.49 | $794.73 |
| Other Roads Construction & ROW – Product Support | $6.41 | $38.95 | $42.03 | $87.45 | $174.84 |
| TMA Funds | $6.22 | $31.12 | $31.12 | $62.25 | $130.71 |
| TALU (>200,000 Population) | $0.44 | $2.22 | $2.22 | $4.43 | $9.31 |
| Strategic Intermodal System | $0.00 | $259.73 | $62.87 | $525.23 | $847.83 |
| ***Potential Regional/Competitive Revenues*** | | | | | |
| TALT (Any Area) | $0.58 | $2.91 | $2.91 | $5.83 | $12.23 |
| TRIP Funds | $0.74 | $5.50 | $6.10 | $12.52 | $24.86 |
| State New Starts Transit Funds | $4.53 | $25.92 | $28.24 | $59.34 | $118.03 |
| ***Transit Revenues*** | | | | | |
| Federal 5307 | $3.88 | $20.17 | $22.15 | $51.08 | $97.28 |
| Federal 5311 | $0.58 | $3.01 | $3.33 | $7.73 | $14.65 |
| FDOT Block Grant | $1.17 | $6.17 | $6.82 | $15.83 | $29.99 |
| FDOT Urban Corridor Grant | $1.13 | $5.88 | $6.50 | $15.09 | $28.60 |
| FDOT Service Development Grant | $0.71 | $1.62 | $0.00 | $0.00 | $2.33 |
| Local Match | $2.07 | $7.75 | $0.00 | $0.00 | $9.82 |
| Fare Revenue | $1.73 | $9.72 | $16.84 | $64.76 | $93.05 |
| Paratransit | $1.52 | $7.98 | $8.74 | $19.86 | $38.10 |
| Other (Local/Private) | $2.20 | $11.65 | $2.68 | $6.23 | $22.76 |
| ***State Motor Fuel Taxes Distributed to the County*** | | | | | |
| State Constitutional Fuel Tax | $4.88 | $25.15 | $26.34 | $55.62 | $111.99 |
| County Fuel Tax | $2.16 | $11.16 | $11.72 | $24.78 | $49.82 |
| ***Locally Imposed Fuel Taxes*** | | | | | |
| Ninth-Cent Fuel Tax | $2.59 | $13.33 | $13.97 | $29.76 | $59.65 |
| 6-Cent Local Option Fuel Tax | $14.65 | $75.56 | $79.28 | $167.55 | $337.04 |
| 5-Cent Local Option Fuel Tax | $10.57 | $54.53 | $57.24 | $120.93 | $243.27 |
| ***Local Discretionary Sales Surtax (Scenario 1)*** | | | | | |
| Penny for Pasco (1.0%), 18% for Transportation | $16.32 | $94.67 | $120.83 | $351.03 | $582.85 |
| Transportation Surtax (1.0%) | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 |
| ***Mobility Fees*** | | | | | |
| Mobility Fees | $31.62 | $151.07 | $152.43 | $292.22 | $627.34 |
| ***Tax Increment Financing*** | | | | | |
| Tax Increment Financing | $47.89 | $295.20 | $395.70 | $1,134.38 | $1,873.17 |
| Tax Increment Financing (VOPH) | $1.23 | $7.43 | $9.72 | $27.24 | $45.62 |
| ***Other Revenues*** | | | | | |
| Developer Contributions (TBD) | $36.48 | $399.31 | $632.00 | $678.14 | $1,745.93 |

Figure 9-1 provides an overview of the baseline revenues and the five scenario considered. The assumptions for these scenarios include the following:

- **Baseline Revenues** – assumes that the current Penny for Pasco authorization expires in 2024 without being renewed or extended.

- **Scenario 1** – assumes that the current Penny for Pasco authorization is renewed and extended through 2045. Allocation of the penny to transportation is based on the current authorization.
- **Scenario 2** – assumes continuation of the current Penny for Pasco (Scenario 1) and the addition of a ½ penny Charter County and Regional Transportation Surtax starting in 2038 and continuing through 2045.
- **Scenario 3** – assumes continuation of the current Penny for Pasco (Scenario 1) and the addition of a ½ penny Charter County and Regional Transportation Surtax starting in 2028 and continuing through 2045.
- **Scenario 4** – assumes continuation of the current Penny for Pasco (Scenario 1) and the addition of a full penny Charter County and Regional Transportation Surtax starting in 2038 and continuing through 2045.
- **Scenario 5** – assumes continuation of the current Penny for Pasco (Scenario 1) and the addition of a full penny Charter County and Regional Transportation Surtax starting in 2028 and continuing through 2045.

**Figure 9-1: MOBILITY 2045 Revenue Scenario Considerations**




Ultimately for developing the Cost Feasible MOBILITY 2045 LRTP, Scenario 1 was selected as the preferred alternative, as it does not include any new taxes. For this scenario, Table 9-5 lists a summary of the revenues assumed to be reasonably available for the LRTP. Each revenue source is discussed in detail below.

## Federal/State Revenue Sources

Projections of Federal and State revenues for use in MPO LRTPs are generated by FDOT. Through enhanced Federal, State, and MPO cooperation and guidance provided by the MPO Advisory Council, FDOT provided a long-range revenue estimate through 2045. At a statewide level, these forecasts are allocated to the seven FDOT Districts. FDOT District 7 further subdivided the forecast of annual Federal and State revenue projections by county for use in the MOBILITY 2045 Plan.

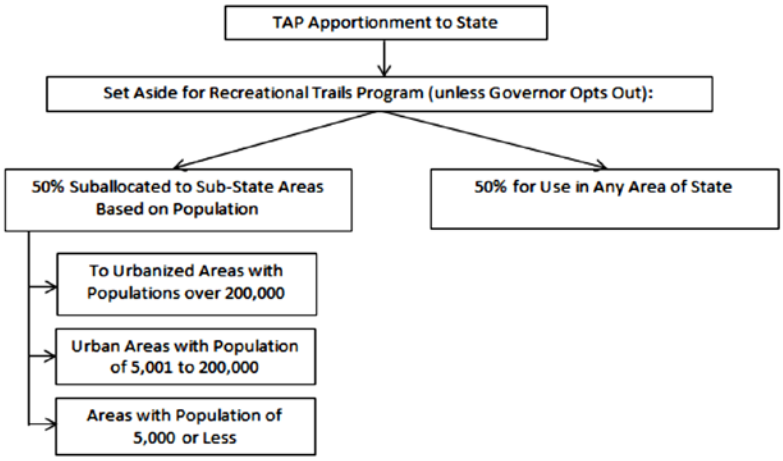
### *Transportation Management Area*

Federal funds are distributed to an urban area with a population greater than 200,000, as designated by the Census Bureau following the decennial census. These revenues are listed as Surface Transportation Program Urban Attributable (SU) funds in the FDOT five-year work program. Pursuant to the *Supplement to the FDOT 2045 Revenue Forecast Handbook*, approximately $161.84 million will be available for 2020–2045 for Pasco County. To develop an appropriate estimate of revenues available for the 2025, the 2021–2025 estimated revenues of $31.1 million was divided by 5. As shown in Table 9-5, a total of **$130.71 million** is forecast to be available for Pasco County from 2025-2045.

### *Transportation Alternatives Program*

The Transportation Alternatives (TA) Program combines the three previous programs of Transportation Enhancements, Safe Routes to School, and Recreational Trails. Revenue estimates for the TA Program are developed into categories based on population. Designed solely to fund projects that are non-auto-based, nine eligible project types can be funded by these revenues, as outlined in 23 USC Section 213(b) and 101(a)(29). The two revenue categories of TA available to the Pasco County MPO are Transportation Alternatives–Urban Area (TALU) funds, available to urbanized areas designated as a TMA with greater than 200,000 population, and Transportation Alternatives–Any Area (TALT) funds, available for use in any area of the state. Figure 9-2 illustrates how TA revenues are distributed through the State. A total of **$9.31 million** of TALU and **$12.23 million** of TALT funds are estimated to be available from 2025–2040 for Pasco County, as shown in Table 9-5. To develop an appropriate estimate of revenues available for 2025, the 2021–2025 estimate of revenues was divided by 5.

**Figure 9-2: Transportation Alternatives Allocation Process**



### *Strategic Intermodal System*

This roadway capacity program provides funds for construction, improvements, and associated ROW on SHS roadways that are designated as part of the Strategic Intermodal System (SIS). SIS planning, led by FDOT, includes a first five-year plan (FY 2019–2023), a second five-year plan (FY 2024– 2028), and the Long-Range Cost Feasible Plan (FY 2029–2045). Updated project timing and costs were provided by FDOT District 7 during the LRTP development. More than **$847.83 million** in improvements have been identified for 2025–2045.

### *Other Roads Construction/ROW*

This roadway capacity program provides funds for construction, improvements, and associated ROW on SHS roadways that are not designated as part of the SIS. Other Roads revenue includes additional funding for the Economic Development Program and the County Incentive Grant Program. The Economic Development Program is a sub-program of this program that may provide funds for access roads and highway improvements for new and existing businesses and manufacturing enterprises that meet certain criteria. Pursuant to the *Supplement to the FDOT 2045 Revenue Forecast Handbook*, approximately $931.2 million will be available for roadway infrastructure projects for 2020–2045. To develop an estimate of revenues for 2025, the estimate of **$145.77 million** provided by FDOT for the 2021–2025 time period was divided by 5, resulting in an estimate of **$794.7 million** for MOBILITY 2045.

MOBILITY 2045 includes other arterial funds for product support. An additional 22 percent of Other Roads funds can be available for preliminary engineering/product support for projects funded with the Other Road: Construction & ROW – Capacity revenues. This results in approximately **$174.8 million** of available revenue for product support.

### *Transportation Regional Incentive Program*

The Transportation Regional Incentive Program (TRIP) was established as part of the State's major growth management legislation enacted with SB 360. The program is intended to encourage regional planning by providing matching funds for improvements to regionally-significant transportation facilities identified and prioritized by regional partners. The Pasco County MPO partnered with other MPOs in the region through an interlocal agreement to develop a regional transportation plan that identifies regional facilities that could be eligible for TRIP funding. For long range planning purposes, it is assumed that this District-allocated revenue is divided among the five counties of District 7 based on population. FDOT District 7 revenues are projected to be $178.3 million for 2020–2045. Regional facilities already identified in the West Central Florida MPO CCC's Regional LRTP, and projects planned by TBARTA are eligible for TRIP funds. Using the population-based distribution of the TRIP funds, it is estimated that the Pasco MPO will receive **$24.9 million** during the 2025–2045 planning horizon.

Funds from the State's General Revenue Fund are made available for TRIP through SB 360 legislation. TRIP funds can be used for up to a 50 percent match to local or regional funds. In-kind matches, such as ROW donations and private funds made available to regional partners, also are allowed. Federal funds attributable to urbanized areas also may be used for the local/regional match.

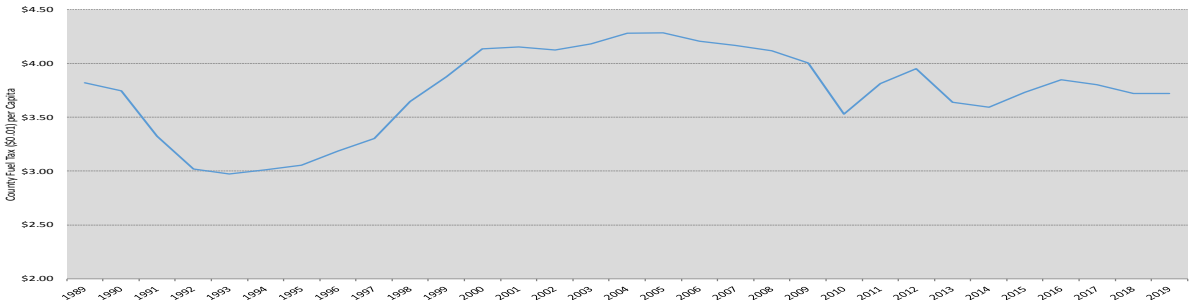
## County Revenue Sources

### *Fuel Tax*

Historically, fuel taxes have represented a major portion of Pasco County's local transportation revenues. Currently, Pasco charges 12 cents of Local Option Fuel Taxes (LOFT) in addition to three cents of State Fuel Tax for local use and dedicates approximately 40 percent of fuel tax revenues to transportation capacity expansion. This section provides a brief outline of adopted and available fuel taxes as well as historical trends and projected future revenues for all fuel tax options in Pasco County.

Figure 9-3 illustrates the trend in historical fuel tax revenue per capita for the County Fuel Tax (1 cent). As shown, fuel tax revenue per capita decreased by an annual average of 0.09 percent since 1989 and by 0.60 percent since 2000. Local fuel tax revenues are based on a set pennies-per-gallon charge, not a percentage of the sale (like sales tax); therefore, fuel taxes do not increase as gas prices increase or with the effects of inflation. Additionally, fuel tax revenues are expected to suffer due to new standards in fuel efficiency. Since 1990, fuel efficiency has increased by approximately 0.60 percent each year.

**Figure 9-3: Pasco County – Fuel Tax ($0.01) per Capita Trend**




*Source: Local Government Financial Information Handbook*

#### Constitutional Fuel Tax (2 cents per gallon)

- Applies to every net gallon of motor and diesel fuel sold within a county; collected in accordance with Article XII, Section 9 (c) of the Florida Constitution.
- State allocates 80 percent of this tax to counties after first withholding amounts pledged for debt service on bonds issued pursuant to provisions of the State Constitution for road and bridge purposes.
- Funds can be used for ROW acquisition, construction, and maintenance of roads.
- Counties not required to share the proceeds of this tax with their municipalities.

Based on the distribution provided in the *Local Government Financial Information Handbook*, Pasco County will receive approximately **$4.49 million** from this fuel tax in FY 2018/2019.

#### County Fuel Tax (1 cent per gallon)

- Applies to every net gallon of motor and diesel fuel sold within a county.
- Primary purpose is to help reduce a County's reliance on *ad valorem* taxes.

- Proceeds are to be used for transportation-related expenses, including reduction of bond indebtedness incurred for transportation purposes. Authorized uses include acquisition of ROW; construction, reconstruction, operation, maintenance, and repair of transportation facilities, roads, bridges, bicycle paths, and pedestrian pathways; or reduction of bond indebtedness incurred for transportation purposes.
- Counties not required to share the proceeds of this tax with their municipalities.

Based on the distribution provided in the *Local Government Financial Information Handbook*, Pasco County will receive approximately **$1.98 million** from this fuel tax in FY 2018/2019.

### 9th Cent Fuel Tax (1 cent per gallon)

- Applies to every net gallon of motor fuel sold within a county.
- Proceeds may be used to fund transportation expenditures as defined in Section 336.027(7), Florida Statutes.
- To accommodate statewide equalization, this tax is automatically levied on diesel fuel in every county, regardless of whether a County is levying the tax on motor fuel at all.
- Counties not required to share the proceeds of this tax with their municipalities.

Based on the distribution provided in the *Local Government Financial Information Handbook*, Pasco County will receive approximately **$2.40 million** from this fuel tax in FY 2018/2019. This represents the portion allocated to the County, which is 100 percent of the revenues. Pasco has the option to allocate revenues to municipalities, but historically has not. For purposes of MOBILITY 2045, it was assumed that this fuel tax will continue to be collected through 2045 and that the current allocation level (100% to the County) will remain constant through 2045.

### 1st Local Option Fuel Tax (6 cents per gallon)

- Applies to every net gallon of motor and diesel fuel sold within a county.
- Proceeds may be used to fund transportation expenditures as defined in Section 336.025(7), Florida Statutes.
- To accommodate statewide equalization, all 6 cents are automatically levied on diesel fuel in every county, regardless of whether a County is levying the tax on motor fuel at all or at the maximum rate.
- Proceeds are distributed to a County and its municipalities according to a mutually-agreed-upon distribution ratio or by using a formula contained in the Florida Statutes.

Based on the distribution provided in the *Local Government Financial Information Handbook*, Pasco County will receive approximately **$13.49 million** from this fuel tax in FY 2018/2019. Currently, the County receives 94 percent of the revenues, with the remaining 6 percent available for the municipalities. For MOBILITY 2045, it was assumed that this fuel tax will continue to be collected through 2045 and the current allocation level (94% to County, 6% to Cities) will remain constant through 2045.

### 2nd Local Option Fuel Tax (5 cents per gallon)

- Applies to every net gallon of motor fuel sold within a county. Diesel fuel is not subject to this tax.
- Must be levied by an ordinance adopted by a majority plus one vote of the membership of the governing body or voter approval in a countywide referendum.
- Proceeds may be used to fund transportation expenditures needed to meet requirements of the capital improvements element of an adopted Local Government Comprehensive Plan or for expenditures needed to meet the immediate local transportation problems and for other transportation-related expenditures that are critical for building comprehensive roadway networks by local governments. Routine maintenance of roads is NOT considered an authorized expenditure.
- Proceeds are distributed to a County and its municipalities according to a mutually-agreed-upon distribution ratio or by using a formula contained in the Florida Statutes.

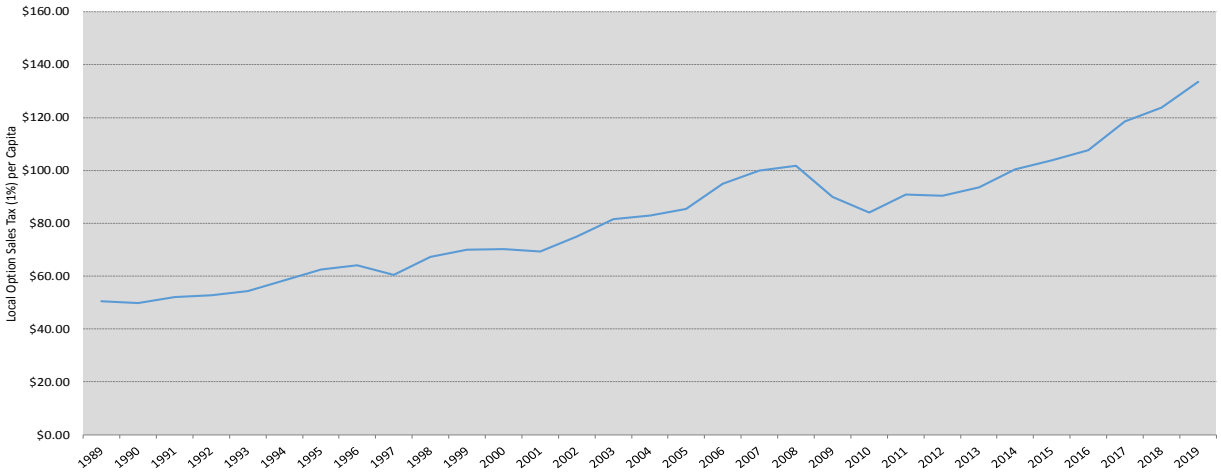
Based on the distribution provided in the *Local Government Financial Information Handbook*, Pasco County will receive approximately **$9.75 million** from this fuel tax in FY 2018/2019. Currently, the County receives 94 percent of the revenues with the remaining 6 percent available for the municipalities. For MOBILITY 2045, it was assumed that this fuel tax will continue to be collected through 2045 and the current allocation level (94% to County, 6% to Cities) will remain constant through 2045. Unlike other local option fuel taxes, 2nd LOFT revenues may not be used for the routine maintenance of roadways but may be used for reconstruction and capacity expansion improvements.

## *Sales Tax*

Historically, local option sales tax revenues have represented a major portion of Pasco County's local transportation revenues. Currently, Pasco charges a 1.0 percent Local Discretionary Sales Surtax, specifically the Local Government Infrastructure Sales Surtax, more commonly referred to as the "Penny for Pasco." A portion of this surtax goes to transportation. This sales tax was first adopted in 2005 and is set to expire at the end of 2024. Following is a brief outline of adopted and available sales tax options for transportation as well as historical trends and projected future revenues for all sales tax options in Pasco County.

Figure 9-4 illustrates the trend in historical sales tax revenue per capita for a 1.0 percent sales tax. As shown, sales tax revenue per capita increased by an annual average of 3.3 percent since 1989, with recent years increasing more than 5.7% on average. For projection purposes, the average annual increase in sales tax per capita is approximately 3.5 percent from 2025 to 2045.

**Figure 9-4: Pasco County – Sales Tax (1.0%) per Capita Trend**




*Source: Local Government Financial Information Handbook*

Sales tax revenues are based on a percentage of a sale; therefore, they increase/decrease with the effects of inflation/deflation. Compared to fuel taxes, sales tax revenues are a much more reliable and consistent source of revenue and are more lucrative. Based on the trend, it was assumed that the sales tax per capita revenue levels will continue to increase through 2045. This assumption was applied to projected revenue calculations for the base and additional revenues. Additionally, these projections reflect only the portion of sales tax historically allocated for transportation expenditures.

### Local Government Infrastructure Sales Surtax (1.0%)

- Commonly referred to as "Penny for Pasco."
- Originally passed by voters in 2004, renewed in 2012, set to sunset in 2024.
- Must be levied at the rate of 0.5 or 1 percent pursuant to an ordinance enacted by a majority vote of the County's governing body and approved by voters in a countywide referendum.
- Generally, the proceeds must be expended to finance, plan, and construct infrastructure; acquire land for public recreation, conservation, or protection of natural resources; or finance the closure of local government-owned solid waste landfills that have been closed or are required to be closed by order of the Department of Environmental Protection.
- Proceeds must be distributed to the County and its respective municipalities according to an interlocal agreement. If there is no interlocal agreement, distribution will be based on the Local Government Half-cent Sales Tax formulas provided in Section 218.62, F.S.

Based on the distribution provided by staff, Pasco County will receive approximately **$16.3 million** from this sales tax in FY 2024/2025. This represents the portion allocated to the County for transportation, which is approximately 18 percent of the total revenues, with the remaining portion allocated to the school board, municipalities, and non-transportation improvements.

For MOBILITY 2045, it is assumed that this revenue source will be renewed and continue through 2045. This continued assumption includes allocation of the penny to transportation under the current agreement.

### Charter County and Regional Transportation System Surtax (1.0%)

- May be levied at the rate of up to 1 percent pursuant to approval by a majority vote of the county's electorate.
- Generally, proceeds are for the development, construction, operation, and maintenance of fixed guideway rapid transit systems, bus systems, on-demand transportation services, and roads and bridges.
- Proceeds must be deposited into the County trust fund or remitted by the county's governing body to an expressway, transit, or transportation authority created by law.

For MOBILITY 2045, four alternative scenarios for this surtax were tested. Scenarios considered for this revenue include the surtax as a 0.5% or a 1.0% sales tax that begins in either 2028 or 2038. The revenues from these four scenarios would become additional funding available to the County to fund transportation needs. Potential revenue estimates identified through these scenarios are shown in Table 9-6. It is assumed that the Charter County and Regional Transportation System Surtax would not be proposed and is therefore not included as an additional local revenue for transportation.

**Table 9-6: Potential Surtax Scenario Revenues (millions)**

| Surtax Revenue Scenario | 2025 | 2026-2030 | 2031-2035 | 2036-2045 | Total |
|---|---|---|---|---|---|
| Scenario 1 – Surtax not included | $ 0 | $ 0 | $ 0 | $ 0 | $0 |
| Scenario 2 – ½ penny beginning in 2038 | $ 0 | $ 0 | $ 0 | $816.2 | $816.2 |
| Scenario 3 – ½ penny beginning in 2028 | $ 0 | $165.4 | $335.6 | $975.1 | $1,476.1 |
| Scenario 4 – 1 penny beginning in 2038 | $ 0 | $ 0 | $ 0 | $1,632.3 | $1,632.3 |
| Scenario 5 – 1 penny beginning in 2028 | $ 0 | $330.8 | $671.2 | $1,950.2 | $2,952.3 |

## *Mobility Fees*

Pasco County mobility fees are assessed to provide revenue for financing the addition and expansion of roadway facilities needed to accommodate new growth and development. In 2011, the County transitioned from a transportation impact fee to a transportation mobility fee to provide greater spending flexibility with regard to impact fee revenues. The most recent mobility fee update study was completed in December 2018. In general, mobility fees must provide a transportation system benefit and may not be used for maintenance projects.

To project mobility fee revenues through 2045, historical transportation impact fees and mobility fee collections, historical permitting, and population growth projections were taken into consideration. Future residential building permits were projected using 2045 population projections, and average persons-per-household data were obtained from the U.S. Census. All potential revenues were projected using the currently-adopted rates in Pasco County and assume that these rates will be increased by approximately one percent annually to account for inflation. Additionally, these projections assume that mobility fees will continue to be charged in Pasco County through 2045.

### *Tax Increment Financing*

In conjunction with the 2011 Mobility Fee Update Study, Pasco County implemented a Tax Increment Financing (TIF) program for transportation funding. The program locks the County's valuation (excluding CRA's) at a certain level (2012 taxable value) and allocates a portion of the annual value increase for transportation improvements. Under current guidelines, approximately one-third of the tax increment increase will be set aside for transportation, resulting in approximately **$1.87 billion** in revenue through 2045. Additionally, a separate TIF account for the Village of Pasadena Hills area is projected to generate approximately **$45.6 million** through 2045. For TIF projections, it was assumed that the current millage will remain constant and the TIF program will remain in place through 2045.

## Transit Revenue Sources

Revenue projections for the Transit Element were prepared to fund the Cost Affordable Plan through 2045. Following is a summary of assumptions used in developing the capital and operating revenues. A more thorough description can be found in the Transit Element Technical Report.

- Federal Section 5307 and 5311 formula program and FDOT Block Grant funding are based on the adopted PCPT TDP. This plan assumes continuation of these sources beyond the TDP planning horizon with an annual growth rate of 2 percent.
- Based on current data, the farebox recovery ratio (passenger fare revenue divided by total operating costs) for fixed-route bus service is 19.5 percent. For the purpose of the 2045 LRTE, farebox revenues were projected by applying this current farebox recovery ratio to the projected operating costs for each fiscal year.
- Local match for Federal Section 5307 and 5311 and FDOT Block Grant was assumed based on data provided by PCPT and Pasco County Office of Management and Budget (OMB). Estimated revenues generated from TIF were also provided by the Office of Management and Budget (OMB) for 2019–2028. This revenue was further expanded to 2045 for this LRTE.
- According to the Pasco County OMB, total funding available for capital from the Pasco County mobility fee proceeds was $3,136,700 for the 20-year period from 2025–2045.
- FDOT Transit Corridor and/or Service Development Grants are assumed to be available from 2020–2045 to fund some of the service improvements identified in the Cost Affordable Plan. It is assumed that these grants will require a 50 percent local match, which will be covered by the various local sources included in the plan.

## Revenue Allocation to LRTP Programs

In developing the cost affordable LRTP, revenues were allocated to the program categories based on eligibility and current practice. Table 9-7 includes a breakdown of the funding and totals by program.

**Table 9-7: Allocation of Revenues to LRTP Programs**

| Funding Programs and Sources | 2025 | 2026-2030 | 2031-2035 | 2036-2045 | Total |
|---|---|---|---|---|---|
| ***Roadways*** | | | | | |
| Strategic Intermodal System | $0.00 | $259.73 | $62.87 | $525.23 | $847.83 |
| Other Roads Construction & ROW - Capacity | $23.32 | $136.65 | $147.82 | $307.99 | $615.78 |
| Other Roads Construction & ROW – Product Support | $5.13 | $31.16 | $33.62 | $69.96 | $139.87 |
| TMA Funds | $5.63 | $27.16 | $26.47 | $41.75 | $101.01 |
| TRIP Funds | $0.74 | $5.50 | $6.10 | $12.52 | $24.86 |
| 5-Cent Local Option Fuel Tax | $10.57 | $54.53 | $57.24 | $120.93 | $243.27 |
| Mobility Fees | $30.08 | $142.58 | $143.21 | $262.95 | $578.81 |
| Tax Increment Financing | $26.34 | $162.36 | $217.64 | $623.91 | $1,030.24 |
| Tax Increment Financing (VOPH) | $1.23 | $7.43 | $9.72 | $27.24 | $45.62 |
| Penny for Pasco (1.0%), 18% for Transportation | $11.42 | $66.27 | $84.58 | $245.72 | $407.99 |
| Developer Contributions | $36.48 | $399.31 | $632.00 | $678.14 | $1,745.93 |
| ***Transit Revenues*** | | | | | |
| Federal 5307 | $3.88 | $20.17 | $22.15 | $51.08 | $97.28 |
| Federal 5311 | $0.58 | $3.01 | $3.33 | $7.73 | $14.65 |
| FDOT Block Grant | $1.17 | $6.17 | $6.82 | $15.83 | $29.99 |
| FDOT Urban Corridor Grant | $1.13 | $5.88 | $6.50 | $15.09 | $28.60 |
| FDOT Service Development Grant | $0.71 | $1.62 | $0.00 | $0.00 | $2.33 |
| State New Starts Transit Funds | $4.53 | $25.92 | $28.24 | $59.34 | $118.03 |
| Local Match | $2.07 | $7.75 | $0.00 | $0.00 | $9.82 |
| Penny for Pasco (1.0%), 18% for Transportation | $0.82 | $4.73 | $6.04 | $17.55 | $29.14 |
| Mobility Fees | $0.16 | $0.76 | $0.76 | $1.46 | $3.14 |
| Tax Increment Financing | $7.18 | $44.28 | $59.36 | $170.16 | $280.98 |
| Fare Revenue | $1.73 | $9.72 | $16.84 | $64.76 | $93.05 |
| Paratransit | $1.52 | $7.98 | $8.74 | $19.86 | $38.10 |
| Other (Local/Private) | $2.20 | $11.65 | $2.68 | $6.23 | $22.76 |
| ***Bicycle and Pedestrian*** | | | | | |
| TALU (>200,000 Population) | $0.44 | $2.22 | $2.22 | $4.43 | $9.31 |
| TALT (Any Area) | $0.58 | $2.91 | $2.91 | $5.83 | $12.23 |
| Mobility Fees | $0.79 | $3.78 | $3.81 | $7.31 | $15.68 |
| Penny for Pasco (1.0%), 18% for Transportation | $4.08 | $23.67 | $30.21 | $87.76 | $145.71 |
| ***Roadway Maintenance*** | | | | | |
| State Constitutional Fuel Tax | $4.88 | $25.15 | $26.34 | $55.62 | $111.99 |
| County Fuel Tax | $2.16 | $11.16 | $11.72 | $24.78 | $49.82 |
| Ninth-Cent Fuel Tax | $2.59 | $13.33 | $13.97 | $29.76 | $59.65 |
| 6-Cent Local Option Fuel Tax | $14.65 | $75.56 | $79.28 | $167.55 | $337.04 |
| Tax Increment Financing | $14.37 | $88.56 | $118.71 | $340.31 | $561.95 |
| ***Congestion Management and Technology*** | | | | | |
| Other Roads Construction & ROW – Capacity | $5.83 | $40.41 | $43.21 | $89.50 | $178.95 |
| Other Roads Construction & ROW – Product Support | $1.28 | $7.79 | $8.41 | $17.49 | $34.97 |
| TMA Funds | $0.60 | $3.96 | $4.65 | $20.50 | $29.71 |
| Mobility Fees | $0.60 | $3.96 | $4.65 | $20.50 | $29.71 |

Additional technical documentation supporting Chapter 9 can be found in the associates standalone Appendix.

- Appendix 9-1 2045 Revenue Forecast Pasco County MPO

MOBILITY 2045

Pasco County MPO
Transportation Plan

# Chapter 10
# Cost Feasible Plan

# Introduction

This chapter summarizes the development of the MOBILITY 2045 Cost Affordable Plan. Development of the plan used public input, agency review, and a technical evaluation of project priorities based on available revenue. The TBRPM was used to evaluate transportation alternatives in a coordinated fashion with other MPO's in the Tampa Bay TMA. Development of the Cost Affordable Plan consisted of identifying existing and committed funding, prioritization of projects identified in the Needs Plan, and selection of projects and programs for funding.

The MOBILITY 2045 Cost Affordable Plan reflects an $8 billion transportation program for 2025–2045. This represents an increase of 6% from the program that was adopted in the MPO's 2040 LRTP. Table 10-1 compares the allocation of revenues by transportation mode/program for the MOBILITY 2045 Plan and the MOBILITY 2040 Plan (adopted in December 2014). Table 10-2 provides a breakdown of the distribution of revenues by source for the MOBILITY 2045 Cost Affordable Plan. Additional details on the revenue sources and descriptions can be found in Chapter 9.

**Table 10-1: MOBILITY 2040 and MOBILITY 2045 Spending Comparison by Transportation Mode**

| Mode/Program | MOBILITY 2040 Adopted Dec 2014 | | MOBILITY 2045 Adopted Dec 2019 | |
|---|---|---|---|---|
| | *Total Cost* (in millions)* | *Distribution* | *Total Cost* (in millions)* | *Distribution* |
| Highway Expansion | $4,782 | 63.6% | $5,781 | 71.1% |
| Transit (Operations & Capital) | $1,881 | 25.0% | $768 | 9.4% |
| Trails, Sidewalks, Bicycle Facilities | $94 | 1.3% | $183 | 2.3% |
| ITS/CMP | $71 | 0.9% | $273 | 3.4% |
| Highway Maintenance | $689 | 9.2% | $1,120 | 13.8% |
| TOTAL | **$7,517** | **100.0%** | **$8,125** | **100.0%** |

** Total cost shown in Future Year of Expenditure amounts.*

**Table 10-2: Distribution of Revenues by Source**

| Revenue Source | Total Revenue* (in millions) | Distribution |
|---|---|---|
| Federal and State | $2,171 | 27% |
| MPO Attributable | $152 | 2% |
| Local | $3,941 | 48% |
| Private Contributions | $1,861 | 23% |
| **TOTAL** | **$8,125** | **100.0%** |

** Total Revenue shown in Future Year of Expenditure amounts.*

The following key observations are made regarding the MOBILITY 2045 Cost Affordable Plan:

- Transit investment decreased significantly, from a nearly 25 percent share in MOBILITY 2040 to 10 percent in MOBILITY 2045. This is a direct result of a new transportation surtax not being included in MOBILITY 2045 revenues, which was included for MOBILITY 2040.
- Highway maintenance investment increased significantly, from a share of more than 9 percent in MOBILITY 2040 to nearly 14 percent in MOBILITY 2045 as a result of projected increases in Tax Increment Financing revenues.

- Highway expansion investment increased, from a nearly 64 percent share in MOBILITY 2040 to about 71 percent in MOBILITY 2045.
- The percent allocation for Trails, Sidewalks, and Bicycle Facilities nearly doubled, from 1.3 to 2.3.
- The investment allocation in ITS and the CMP had the greatest increase in share of funding, from less than 1 percent to more than 3 percent.

The remainder of this chapter provides an overview of the project selection process used for developing the Cost Affordable LRTP along with an approach for identifying future projects in the walk/bike and congestion management programs.

# Setting Priorities

Identifying the transportation projects to include in MOBILITY 2045 required balancing needs identified through technical analysis and citizen input with expectations of future available revenues. Both a qualitative and quantitative approach were used in selecting the multimodal projects for the cost affordable plan.

## Roadway Prioritization

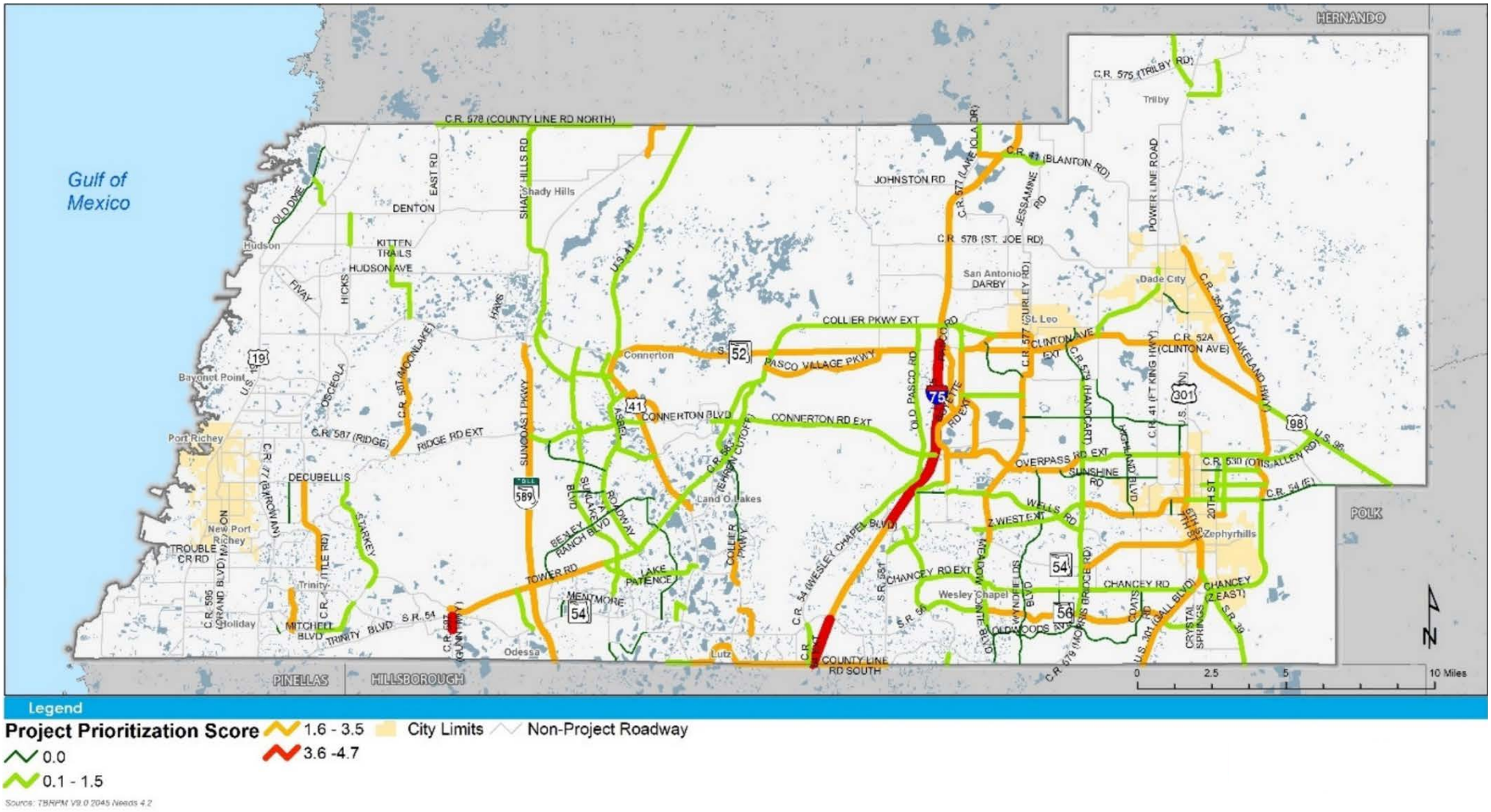
### *Technical Approach*

Using the goals of the FAST Act, eight measurable criteria were developed to evaluate the merit of needed highway capacity projects. Table 10-3 presents the evaluation criteria selected and their respective relevance to the national planning goals identified through the FAST Act. Each prioritization criterion was assigned a weighting factor based on the importance assigned by staff and review of the LRTP Technical Team. Map 10-1 shows how the composite prioritization scores were assigned to the roadway projects in the MOBILITY 2045 Needs Plan. The scores were grouped into categories to identify High, Medium, and Low priority projects.

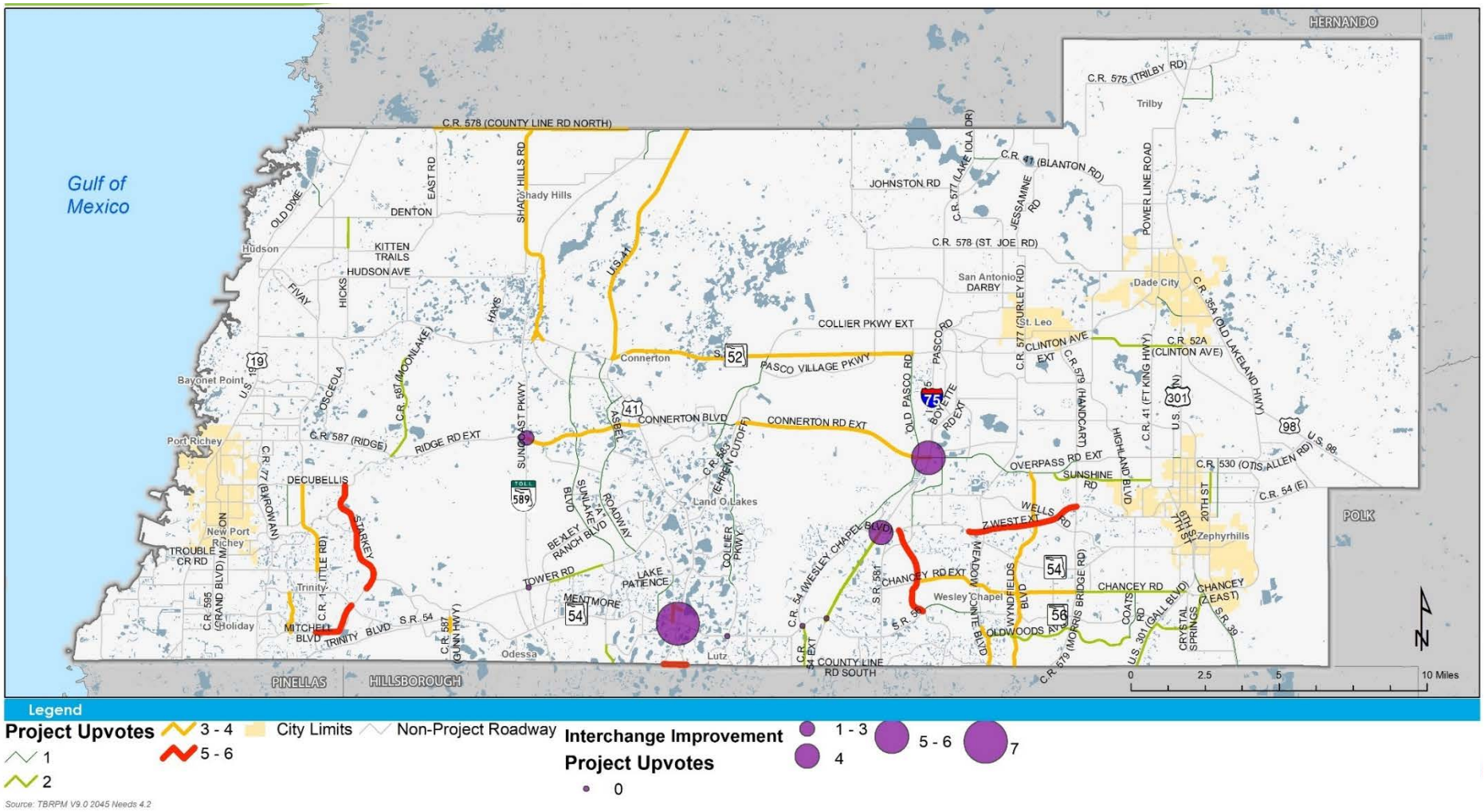
### *Public Involvement*

Using the Community Remarks online community engagement application, the public was provided an opportunity to vote on the roadway needs projects and provide comments. Additional detail regarding this outreach is provided in Chapter 6. Map 10-2 illustrates the projects that received the highest votes through this outreach activity.

**Map 10-1: Roadway Project Prioritization**



**Map 10-2: Public Input Support for Roadway Needs Projects**



## Transit Prioritization Methodology

A methodology was developed to evaluate and prioritize the transit service needs. By conducting an alternatives evaluation, the Pasco County MPO can better prioritize projects and allocate funding using an objective service assessment process. Three evaluation categories were identified for determining criteria for the evaluation:

- Public Outreach
- Transit Markets
- Productivity and Efficiency

Tables 10-3 and 10-4 list these evaluation categories, each category's corresponding criteria, the associated measure of effectiveness, and the assigned weighting. A composite score for each service alternative was calculated based on the score received for each criterion and the weight assigned for the corresponding criterion. Table 10-5 shows the ranking summary for the transit service alternatives. These rankings were used to assist in the development of the implementation plan for the MOBILITY 2045 Cost Affordable Transit Plan.

**Table 10-3: Roadway Project Evaluation Criteria, Weighting, and National Planning Goals**

| Weighting and National Planning Goals<br>MOBILITY 2045 Evaluation Criteria | Criterion Weight | Safety | Infrastructure Condition | Congestion Reduction | System Reliability | Freight Movement & Economic Vitality | Environmental Sustainability | Reduced Project Delivery Delays |
|---|---|---|---|---|---|---|---|---|
| Project Status | 15% | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Existing Congestion Levels | 15% | | | ✓ | ✓ | | | |
| Safety | 20% | ✓ | ✓ | | ✓ | | | |
| Multimodal Connectivity | 10% | | | | | ✓ | | |
| Environmental Justice/Environmental Impact | 10% | | | | | | ✓ | |
| Emergency Evacuation Routes | 5% | ✓ | | | ✓ | | | |
| CCC Regional Road Network | 5% | | | ✓ | ✓ | ✓ | | |
| Access to Major Activity Centers | 20% | | | | ✓ | ✓ | | |

**Table 10-4: Alternatives Evaluation Measures**

| Category | Criteria | Measure of Effectiveness | Relative Weighting | Overall Category Weight |
|---|---|---|---|---|
| Public Outreach | Public Input | Level of interest in specific alternatives (Very High, High, Moderate, Low) | 30% | 30% |
| Transit Markets | Traditional Market | Percent of corridor in areas with "High" or "Very High" transit orientation | 15% | 40% |
| | Discretionary Market | Percent of corridor in areas that meet the "minimum" threshold for employment or dwelling unit density | 15% | |
| | Urban/Regional Market | Connectivity to urban markets in adjacent counties | 10% | |
| Productivity & Efficiency | Productivity | Trips per hour (2045 LRTP transit ridership modeling results and calculated revenue hours) | 15% | 30% |
| | Cost Efficiency | Cost per trip (including new trips) | 15% | |
| **Total** | | | **100%** | **100%** |

*Notes: Traditional Market refers to population segments that historically have had a higher propensity to use transit and are dependent on transit for their transportation needs and include older adults, youths, and households that are low-income and/or have no vehicles. Discretionary Market refers to potential riders living in higher-density areas of the county that may choose to use transit as a commuting or transportation alternative. Thresholds were established based on industry-standard relationships to identify areas of Pasco County that experience transit-supportive residential and employee density levels.*

**Table 10-5: Ranking Summary of MOBILITY 2045 Transit Service Alternatives**

| Proposed Improvement | Score | Rank |
|---|---|---|
| Increase frequency to 30 min on existing routes | 6.70 | 1 |
| Increase frequency to 15 min on Route 19 | 6.70 | 1 |
| Expand hours of service 3 hrs at night on all routes | 6.70 | 1 |
| SR-54 15-min Premium Transit Service | 5.20 | 4 |
| Route 19 15-min Premium Service | 4.60 | 5 |
| Spring Hill Connector Limited Express | 4.60 | 5 |
| US-19 Express (PHSC to Tarpon Mall) | 4.30 | 7 |
| Regional Express I-75 (off peak) | 4.30 | 7 |
| Regional Express I-75 (peak) | 4.30 | 7 |
| Add Sunday Service on existing routes | 4.20 | 10 |
| Regional Rapid Transit (I-275) | 4.00 | 11 |
| Land O Lakes Circulator (round-trip) | 3.90 | 12 |
| SR-54 Cross County Express | 3.70 | 13 |
| Suncoast Express | 3.70 | 13 |
| Wesley Chapel/USF Express | 3.70 | 13 |
| SR-52 Cross County Express | 3.60 | 16 |
| Wiregrass Hopper | 3.60 | 16 |
| Bruce B. Downs/Wesley Chapel Premium Transit | 3.50 | 18 |
| US-41 local service to Brooksville | 3.40 | 19 |
| Dale Mabry/US-41 Premium Transit | 3.40 | 19 |
| Regional Rail on US-41 (Brooksville to Downtown) – peak | 3.40 | 19 |
| Regional Rail on US-41 (Brooksville to Downtown) – off-peak | 3.40 | 19 |
| SR-52 Cross County Connector local service | 3.00 | 23 |
| Zephyrhills to Cypress Creek local service | 2.70 | 24 |
| Trouble Creek/River Crossing local service | 2.70 | 24 |
| Zephyrhills to Bruce B. Downs | 2.70 | 24 |
| Ridge Rd Connector local service | 2.70 | 24 |
| Connerton Circulator | 2.70 | 24 |
| Shady Hills Connector | 2.20 | 29 |
| Starkey Connector | 2.10 | 30 |
| Hudson Area Circulator (round-trip) | 2.10 | 30 |
| St. Leo University Connector | 1.80 | 32 |
| Land O Lakes- Hudson Connector | 1.80 | 32 |
| Blanton - Wiregrass PnR local service | 1.50 | 34 |
| Zephyrhills Circulator (round-trip) | 1.50 | 34 |
| Chancey Rd | 1.20 | 36 |

# Roadway Cost Affordable Projects

Roadway projects in the MOBILITY 2045 Cost Affordable Plan are illustrated in Map 10-3, the transportation network resulting from the completion of the committed roadway capacity projects by 2024, and Map 10-4 shows the 2045 cost affordable roadway number of lanes and cost affordable projects.

As a result of annual updates of the TIP and the FDOT Work Program, FDOT has already prepared its 5-Year Work Program that extends to 2025. The Cost Affordable Plan project list includes identified funding for projects consistent with the TIP and FDOT Work Program at the time of adoption. During the development of the LRTP, several projects were advanced into the Work Program and funded sooner than anticipated. As project funding allows for the advancement of projects sooner than anticipated, future amendments to the LRTP will reflect the funding of projects listed in the LRTP to match programming in the TIP consistent with the guidelines provided for demonstrating consistency. All alignments for future transportation improvements are conceptual and subject to more-detailed analysis prior to implementation. In addition, Map 10-4 references a substantial investment in transportation improvements to the US-19 and SR-54/56 corridors that will be identified by future studies.

The 2045 Cost Affordable Plan roadway network includes significant capacity improvements throughout Pasco County. Highlights of the proposed highway improvements are summarized below.

## Major Roadway Capacity Projects

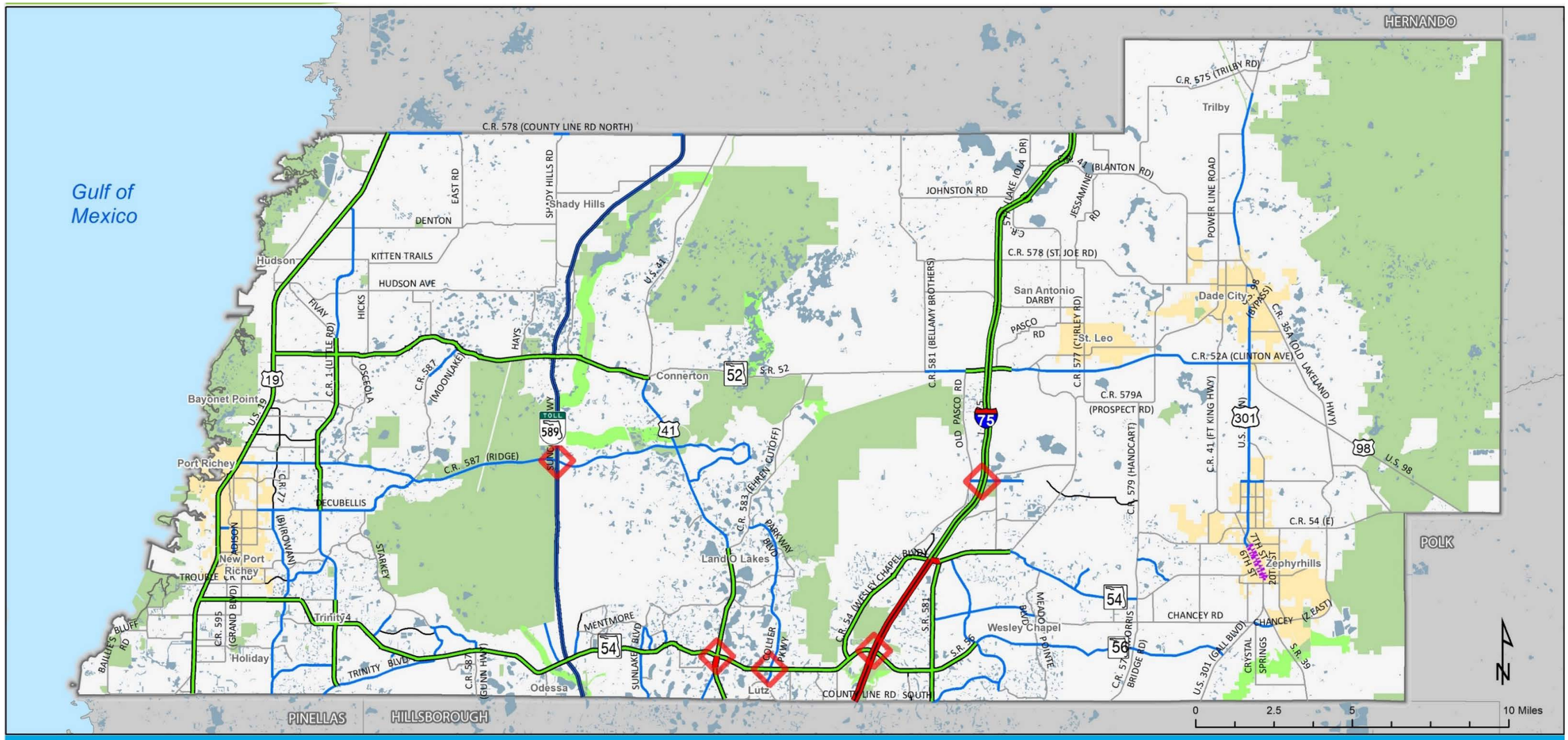
### *Committed Projects (2020–2024)*

- Collier Pkwy from Bell Lake Rd to Parkway Blvd, widen to 4 lanes
- Clinton Ave Ext from Uradco Pl (east of I-75) to Fort King Rd, construct new/widen to 4 lanes
- Little Rd from Trinity Blvd to SR-54, widen to 6 lanes
- Overpass Rd and I-75 Interchange
- Ridge Rd from Moon Lake Rd to US-41, construct new 4 lanes, add interchange at Suncoast Pkwy
- SR-52 from Suncoast Pkwy to US-41, widen to 4 lanes
- Trinity Blvd from Little Rd to SR-54, widen to 4 lanes
- US-41 from N of Connerton Blvd to S of SR-52, widen to 4 lanes
- Wesley Chapel Blvd from SR-56 to Oakley Blvd, widen to 6 lanes

### *East/West Roadway Projects (2025 – 2045)*

- N County Line Rd from East Rd to Shady Hills Rd, widen to 4 lanes
- Overpass Rd Ext from I-75 to US-301, construct new 4 lanes
- S County Line Rd from Dale Mabry Hwy to I-75, widen to 4 lanes
- SR-52 from US-41 to Old Pasco Rd, widen to 4 lanes
- Tower Rd from Gunn Hwy to Sunlake Blvd, construct new/widen to 4 lanes
- Zephyrhills West Ext from SR-54 to US-301, construct new/widen to 4 lanes
- Construction of several developer roadways in central and east portion of county

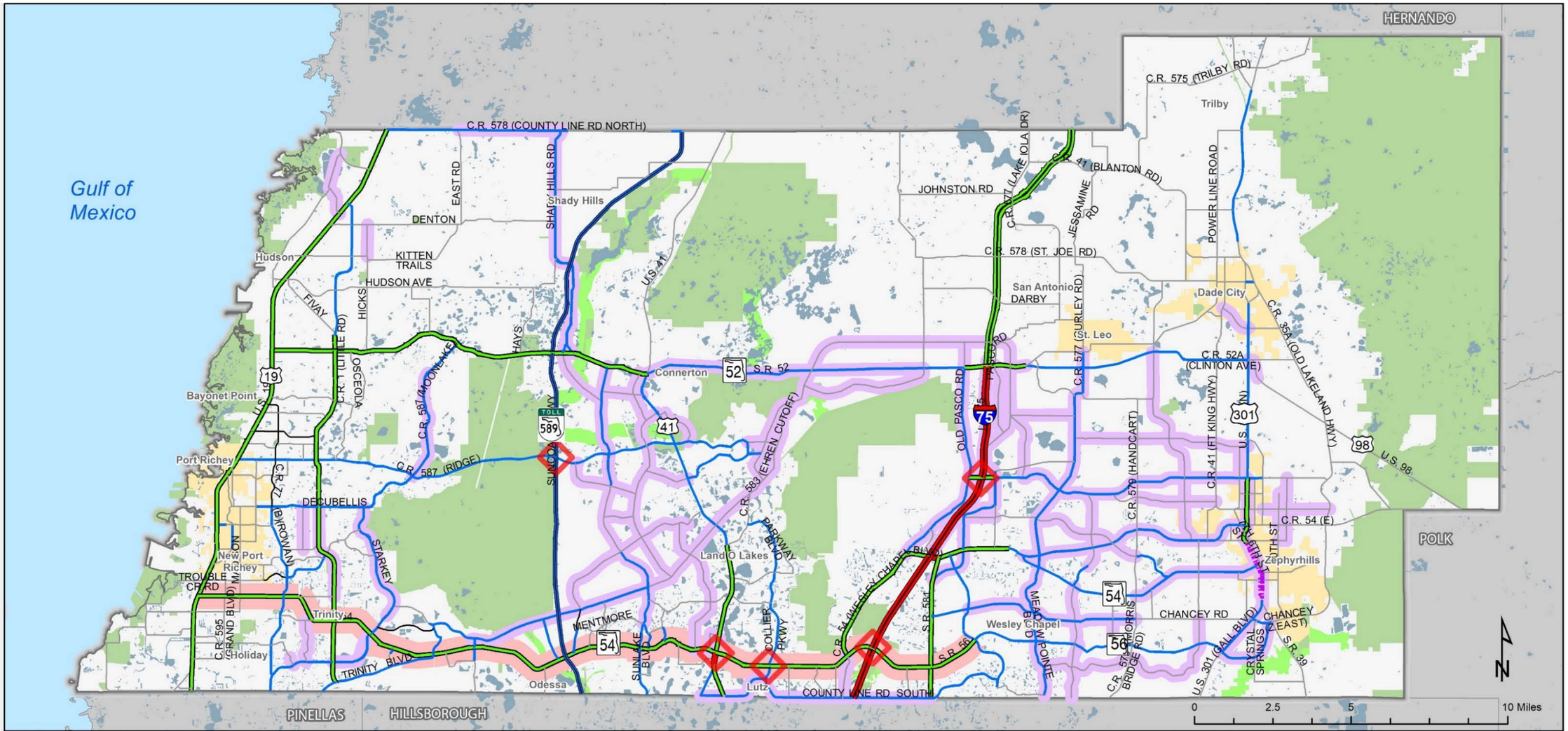
**Map 10-3: Existing and Committed Roadway Number of Lanes (2024)**




**Legend**

**Number of Lanes**
- 2 Lane Undivided
- 2 Lane Divided
- 2 Lane One Way
- 4 Lane Divided
- 4 Lane Freeway
- 6 Lane Divided
- 6 Lane Freeway
- 8 Lane Divided
- 8 Lane Freeway
- 10 Lane Freeway
- City Limits
- New / Improved Interchange
- Critical Linkages
- Parks and Publicly Owned Land

**Map 10-4: Roadway Capacity Improvements and Number of Lanes (2025–2045)**




**Legend**

**Number of Lanes**
- 2 Lane Undivided
- 2 Lane Divided
- 2 Lane One Way
- 4 Lane Divided
- 4 Lane Freeway
- 6 Lane Divided
- 6 Lane Freeway
- 8 Lane Divided
- 8 Lane Freeway
- 10 Lane Freeway
- City Limits
- New / Improved Interchange
- 2025-2045 Improvement
- SR 54/56 Corridor Improvements
- Critical Linkages
- Parks and Publicly Owned Land

**$632.8m is set aside for various studies and improvements along the SR 54/56 Corridor**

### *North/South Roadway Projects (2025–2045)*

- Moon Lake Rd from Ridge Rd to S of SR-52, widen to 4 lanes
- Shady Hills Rd from SR-52 to County Line Rd, widen to 4 lanes
- Starkey Blvd from Rangeland Blvd to Decubellis Rd, widen to 4 lanes
- Old Pasco Rd from Overpass Rd to SR-52, widen to 4 lanes
- US-98 – re-align to connect to Clinton Rd Extension at US-301
- US-301 – redesign one-way pair in Zephyrhills; reduce to 2 lanes one-way on 6th St and Gall Blvd
- US-301 from Eiland Blvd to Kossik Rd, widen to 6 lanes
- Construction of several developer roadways in central and east portion of county

### *Future Corridor Improvements (2020–2045)*

- SR-54/56 – alternative improvements in SR-54/56 corridor currently being evaluated as part of Vision 54/56 assessment; future corridor alternatives could include, but are not necessarily limited to, premium transit improvements, overpasses, and/or elevated lanes, and future corridor assessment will include significant public engagement regarding alternative improvements to the SR-54/56 corridor.
- US-19 – corridor improvements based upon future studies and/or recommendations consistent with the Vision of the adopted West Market Plan.

### *Constrained Roadways*

There are no formally-adopted constrained roadways in the Pasco County Comprehensive Plan; as a result, constrained roadways are not identified in MOBILITY 2045. It should be noted, however, that the City of St. Leo Comprehensive Plan constrains SR-52 to a 2-lane undivided road in the vicinity of St. Leo University.

During development of the MOBILITY 2040 LRTP, the MPO Board adopted a series of policy statements intended to guide future transportation decisions and funding. The following policy regarding the maximum number of general purpose lanes was adopted on June 12, 2014:

- **Maximum Number of Lanes on Non-Freeway/Expressway Road** – Future road improvements on non-freeway/expressway roads shall be limited to a maximum of six general purpose through-lanes. Exceptions may be made on roads that necessitate special use or auxiliary lanes.

### *Roadway Maintenance*

- State roads – Although not specifically reflected in MOBILITY 2045, FDOT has committed to include sufficient funding in its 2045 revenue forecast to meet the following statewide objectives and policies:
    - Resurfacing Program – Ensure that 80 percent of SHS pavement meets FDOT standards

- Bridge Program – Ensure that 90 percent of FDOT-maintained bridges meet Department standards while keeping all FDOT-maintained bridges open to the public safe.
- Operations and Maintenance Program – Achieve 100 percent of acceptable maintenance condition standard on the State Highway System
- Product Support – Reserve funds for Product Support required to construct improvements (funded with the forecast capacity funds) in each district and metropolitan area
- Administration – Administer the state transportation program

- County roads: Pasco County recognizes the importance of increasing its investment in highway maintenance and is allocating the 6-cent Local Option Fuel Tax to ensure that additional local resources are available to meet the maintenance needs of the County road network. Revenues collected from a Countywide Tax Increment Finance policy are allocated for capital roadway maintenance activities.

## Next Steps and Implementation

MOBILITY 2045 is the next step in the evolution of long-range transportation planning for Pasco County. With each five-year update of the LRTP, updates are incorporated to address the latest guidance from the Federal and State levels and meet the ever-changing transportation needs of Pasco County.

Pasco County is experiencing high growth in multi-family residential development and commercial development and employment to support the growing population. This plan considers land use scenarios and growth at the county and regional levels. Given the high growth and changing land use patterns in the county, it is paramount that transportation planning and land use changes be closely coordinated. This linkage and the relationship between land use and transportation has been strengthened through the development of this plan.

MOBILITY 2045 also continues to emphasize multimodal planning and safety. As Pasco County becomes more densely populated, transit and active transportation modes (bicycling and walking) become more instrumental in providing mobility choices. This plan builds upon and reinforces a commitment to bicycle and pedestrian facilities and multi-use paths in Pasco County. With increased densities, congestion, and the presence of bicyclists and pedestrians, safety is a focus of this plan. Short-term improvements at the intersection and corridor levels are envisioned to make the transportation environment safer for all travelers.

Technology also takes a large leap forward in MOBILITY 2045 as automated, connected, electric, and shared (ACES) vehicle impacts on the landscape are being considered. These technologies along with traffic signal and ITS implementation will impact roadway capacity, land use, and the safety of future transportation system users.

Other factors such as resiliency and climate change are also affecting planning for future transportation needs. These are considered in MOBILITY 2045, as they will have long-term, continuing impacts on the way the transportation system is built and maintained for years to come.

This plan also continues to reinforce a commitment to the citizens of Pasco County. EJ considerations have been made to ensure that the distribution of projects is equitable and meets the needs of all citizens. The development of MOBILITY 2045 included extensive public involvement activities, and changes to projects and priorities were made based upon public input.

MOBILITY 2045 not only identifies and prioritizes cost affordable projects through 2045, it also sets the groundwork for logical next steps in project implementation and development. This includes a concerted effort to advance and follow through with all plan programs and elements. The following are next steps to consider for plan implementation:

- Update the MPO's CMP to identify short-term, lower-cost projects for an immediate impact on congestion and safety within the county.
- Work closely with the County's comprehensive planners to consider the impacts of proposed and new developments and providing supportive transportation infrastructure.
- Provide consistency with the nature and character of the county's Market Areas rather than a one-size-fits-all approach to transportation and land use coordination.
- Work closely with regional partners through the Tampa Bay TMA and TBARTA to advance regional transportation projects.
- Advance transportation projects by partnering with State, Federal, and local partners.
- Conduct a subarea analysis of transportation needs in the growing and changing Zephyrhills Airport area.
- Continue development and use of land use scenario planning.

# 2045 Transit Mobility Cost Affordable Plan

The MOBILITY 2045 Cost Affordable Plan is based on Needs Plan improvements, input from Pasco MPO and PCPT staff, public involvement activities, and revenue projections. A capital acquisition plan was developed to address capital needs for the planned transit improvements, and operating and capital revenues projected based on various assumptions were compared with operating and capital costs to develop the MOBILITY 2045 transit financial plan.

## Cost Affordable Transit Service Alternatives

Following is a summary of service improvement alternatives included in the 2045 Transit Cost Affordable Plan:

- **Existing Service Improvements** – All service improvements to existing routes identified in Section 3 are scheduled to be implemented:
  - Increase service frequency to 15 minutes on Route 19.
  - Increase service frequency to 30 minutes on all other existing routes.
  - Expand 3 hours of service at night on existing routes.
  - Add Sunday service on existing routes.

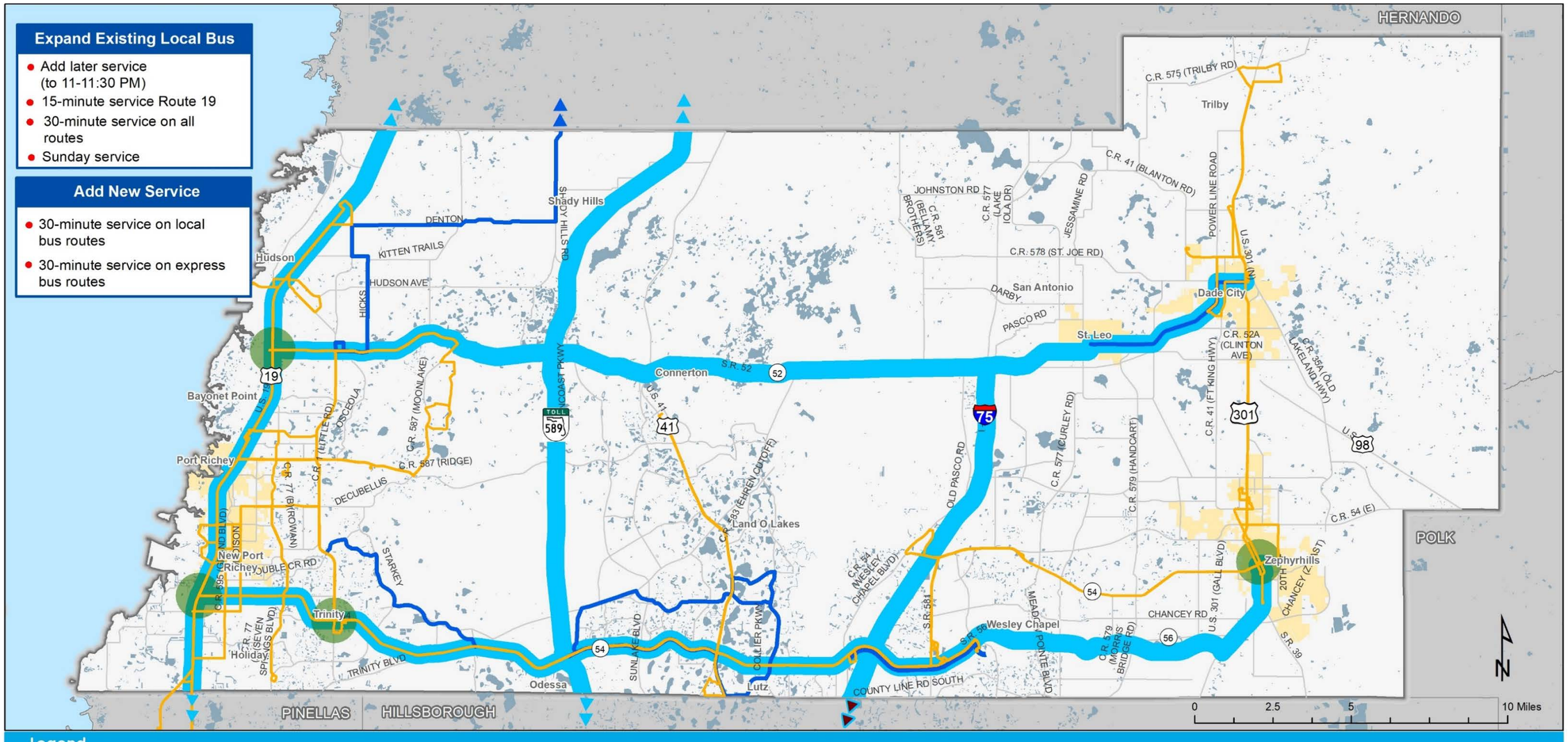
- **New Service Expansion** – The following transit improvements from the Needs Plan can be funded in the Cost Affordable Plan:
  - Wiregrass Hopper
  - Shady Hills Connector
  - St. Leo University Connector
  - Regional I-75 Express
  - US-19 Express
  - Regional Rapid Transit (I-275)
  - Land O Lakes Circulator
  - SR-54 Cross County Express
  - SR-52 Cross County Express
  - Starkey Connector
- **Expansion of Demand-Response Service As Needed** – Demand-response services will be maintained as appropriate through 2045. In particular, PCPT is required to provide complementary paratransit services within three-quarters of a mile of fixed-route local bus services.

The transit service improvement alternatives included in the 2045 Transit Cost Affordable Plan are summarized in Table 10-6 and illustrated in Map 10-5.

**Table 10-6: Summary of Transit Projects in the 2045 Cost Affordable Plan**

| Proposed Improvement | Service Type | Implementation Year | Service Frequency |
|---|---|---|---|
| ***Improvements to Existing Routes*** | | | |
| Increase frequency to 30 min on existing routes | Local Service | 2024 | 30 |
| Increase frequency to 15 min on Route 19 | Local Service | 2020 | 15 |
| Expand hours of service 3 hours at night on all routes | Local Service | 2021 | 30 |
| Add Sunday Service on existing routes | Local Service | 2026 | 30 |
| ***New Service Expansion*** | | | |
| SR-52 Cross County Express | Express Service | 2022 | 30 |
| Wiregrass Hopper | Local Service | 2023 | 30 |
| Shady Hills Connector | Local Service | 2024 | 30 |
| St. Leo University Connector | Local Service | 2027 | 30 |
| Regional Express I-75 (off-peak) | Express Service | 2029 | 30 |
| Regional Express I-75 (peak) | Express Service | 2029 | 20 |
| US-19 Express (PHSC to Tarpon Mall) | Express Service | 2033 | 30 |
| Regional Rapid Transit (I-275) | Premium Transit | 2029 | 30 |
| Land O Lakes Circulator (round-trip) | Local Service | 2029 | 30 |
| SR-54 Cross County Express | Express Service | 2033 | 30 |
| Suncoast Express | Express Service | 2033 | 30 |
| Starkey Connector | Local Service | 2029 | 30 |
| Paratransit (ADA) service for new local routes | Local Service | 2020–2045 | n/a |

**Map 10-5: MOBILITY 2045 Cost Affordable Transit Plan, 2020–2040**




*Super Stops are enhanced bus stops that may include a kiosk, real-time bus arrival information display, lighting, covered seating, bike storage, and other amenities.

## Cost Affordable Capital Acquisition Plan

A Transit Capital Acquisition Plan (TCAP) was developed as part of the MOBILITY 2045 transit element. Transit capital components are required to support transit service expansion included in the Cost Affordable Plan. Capital improvements in the Cost Affordable Transit Plan are summarized below.

### *Vehicles*

A significant number of new buses are needed to replace the existing service vehicle fleet and to support transit service expansion. The 2045 Cost Affordable Transit Plan includes the purchase of 236 transit vehicles, of which 170 are fixed-route buses (including spare vehicles), 58 are paratransit vehicles, and the remaining 8 are new support automobiles.

### *Super Stops*

The plan includes the construction of 4 "super stops" to serve as complementary facilities for transit use. It is proposed that the stops be located on US-19 and SR-54/56 to support key transfer locations. These enhanced bus stops may include a kiosk, real-time bus arrival information display, lighting, covered seating, bike storage, and other amenities.

### *Other Transit Infrastructure*

Other transit infrastructure improvements include bus bays, bus shelters, benches, and signs that need to be considered to accommodate the new transit service expansion.

To develop the total costs for each of the capital components described above, unit costs were obtained from various sources, including the 2019–2028 *Access Pasco* TDP and the *PCPT Transit Infrastructure Guidelines Manual*. Table 10-7 summarizes the key transit capital cost assumptions.

**Table 10-7: Key Transit Capital Cost Assumptions**

| Capital Elements | Life Cycle | 2019 Unit Costs/Units | Notes/Source |
|---|---|---|---|
| Spare Ratio – Bus | n/a | 20% | FTA standard |
| Fixed-Route Bus Unit Costs | 12 yrs | $500,000 | Based on other recent Florida TDPs |
| Vehicle Unit Costs – Paratransit Bus | 7 yrs | $90,000 | Based on other recent Florida TDPs |
| Vehicle Unit Costs – Support Vehicle | 5 yrs | $45,000 | Based on other recent Florida TDPs |
| Capital Cost Inflation Rate – Bus | n/a | 2% | Based on other recent Florida TDPs, FDOT |
| Super Stops | 20 yrs | $3.5 million | Total cost from 2018 TDP |
| Bus Stop Infrastructure Program – Signs, Benches, Shelters | n/a | $125,000 | Annually, PCPT staff |

### *Overview of Capital Acquisition Plan*

Based on the unit cost assumptions presented in Table 10-7, the TCAP was developed according to the implementation schedule of each service improvement alternative included in the Cost Affordable Plan. Table 10-8 presents the detailed vehicle replacement and expansion schedule through 2045.

**Table 10-8: Vehicle Replacement and Expansion Schedule (2020–2045)**

| Year | Fixed-Route Buses | | | Paratransit Vans | | Support Vehicles | |
|---|---|---|---|---|---|---|---|
| | *Replace* | *New* | *Spare Vehicles* | *Replace* | *New* | *Replace* | *New* |
| 2020 | 0 | 0 | 0 | 5 | 0 | 1 | 0 |
| 2021 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2022 | 5 | 2 | 0 | 2 | 0 | 0 | 0 |
| 2023 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 2024 | 6 | 10 | 2 | 5 | 1 | 1 | 0 |
| 2025 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 2026 | 6 | 0 | 0 | 4 | 0 | 0 | 0 |
| 2027 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 2028 | 6 | 0 | 0 | 5 | 0 | 0 | 0 |
| 2029 | 0 | 25 | 5 | 0 | 2 | 0 | 0 |
| 2030 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2031 | 7 | 0 | 0 | 0 | 0 | 1 | 0 |
| 2032 | 0 | 0 | 0 | 5 | 0 | 1 | 0 |
| 2033 | 0 | 11 | 2 | 0 | 0 | 0 | 0 |
| 2034 | 5 | 2 | 0 | 2 | 0 | 0 | 0 |
| 2035 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 2036 | 6 | 10 | 2 | 5 | 0 | 0 | 0 |
| 2037 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2038 | 6 | 0 | 0 | 4 | 0 | 1 | 0 |
| 2039 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 2040 | 6 | 0 | 0 | 5 | 0 | 0 | 0 |
| 2041 | 0 | 25 | 5 | 0 | 2 | 0 | 0 |
| 2042 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2043 | 7 | 0 | 0 | 0 | 1 | 0 | 0 |
| 2044 | 0 | 0 | 0 | 5 | 0 | 0 | 0 |
| 2045 | 0 | 7 | 1 | 0 | 0 | 1 | 0 |
| Total | **60** | **92** | **18** | **47** | **11** | **8** | **0** |

## Operating and Capital Costs Summary

Table 10-9 presents the total operating and capital costs for the cost affordable plan by project between 2020 and 2045. In year-of-expenditure dollars, total operating cost equals $673 million while total capital costs equal $144 million. Total operating and capital costs add up to $817 million for the MOBILITY 2045 Cost Affordable Transit Plan.

**Table 10-9: Operating and Capital Costs Summary of 2045 Cost Affordable Plan, 2020-2045**

| Proposed Improvement | Implementation Year | Capital Costs (YOE*) | | | Operating Cost (YOE*) | Total Cost (YOE*) |
|---|---|---|---|---|---|---|
| | | *Replacement Vehicles for Existing Services* | *Vehicle Purchases for New Services* | *Infrastructure* | | |
| Continue existing fixed-route service | Ongoing | $39,027,189 | $0 | $0 | $139,933,377 | $178,960,566 |
| Continue existing paratransit service (ADA & TD) | Ongoing | $5,430,783 | $0 | $0 | $49,516,731 | $54,947,514 |
| Support vehicles | Ongoing | $392,565 | $0 | $0 | $0 | $392,565 |
| Increase frequency to 30 min on existing routes | 2024 | $0 | $20,838,828 | $0 | $140,637,376 | $161,476,204 |
| Increase frequency to 15 min on Route 19 | 2020 | $0 | $7,908,425 | $0 | $53,724,987 | $61,633,412 |
| expand hours of service 3 hours at night on all routes | 2021 | $0 | $0 | $0 | $18,916,678 | $18,916,678 |
| Add Sunday Service on existing routes | 2026 | $0 | $0 | $0 | $25,172,723 | $25,172,723 |
| SR-52 Cross County Express | 2022 | $0 | $2,455,218 | $0 | $5,505,513 | $7,960,731 |
| Wiregrass Hopper | 2023 | $0 | $225,389 | $0 | $7,322,143 | $7,547,532 |
| Shady Hills Connector | 2024 | $0 | $2,554,408 | $0 | $9,228,429 | $11,782,837 |
| St. Leo University Connector | 2027 | $0 | $243,968 | $0 | $2,115,856 | $2,359,824 |
| Regional Express I-75 (off-peak) | 2029 | $0 | $2,820,273 | $0 | $14,757,925 | $17,578,198 |
| Regional Express I-75 (peak) | 2029 | $0 | $4,230,410 | $0 | $11,068,442 | $15,298,852 |
| **US-19** Express (PHSC to Tarpon Mall) | 2033 | $0 | $5,640,548 | $0 | $44,273,776 | $49,914,324 |
| Regional Rapid Transit (I-275) | 2029 | $0 | $5,640,548 | $0 | $44,273,776 | $49,914,324 |
| Land O Lakes Circulator (round-trip) | 2029 | $0 | $4,230,410 | $0 | $32,178,354 | $36,408,764 |
| SR-54 Cross County Express | 2033 | $0 | $8,210,539 | $0 | $26,225,743 | $34,436,282 |
| Suncoast Express | 2033 | $0 | $2,691,737 | $0 | $34,967,656 | $37,659,393 |
| Starkey Connector | 2029 | $0 | $1,410,137 | $0 | $11,068,442 | $12,478,579 |
| Paratransit (ADA) service for new local routes | 2020-2045 | $0 | $885,201 | $0 | $2,198,443 | $3,083,644 |
| Super Stops | 2020-2045 | $0 | $0 | $3,696,385 | $0 | $3,696,385 |
| Other capital infrastructure | 2020-2045 | $0 | $0 | $25,425,048 | $0 | $25,425,048 |
| Total | | **$44,850,537** | **$69,986,039** | **$29,121,433** | **$673,086,370** | **$817,044,379** |

**YOE = Year of Expenditure*

Additional technical documentation supporting Chapter 10 can be found in the associates standalone Appendix.

- Appendix 10-1 Project Prioritization Criteria
- Appendix 10-2 MOBILITY 2045 Cost Affordable Roadway Projects
- Appendix 10-3 MOBILITY 2045 Cost Affordable Roadway Level-of-Service

MOBILITY 2045

Pasco County MPO
Transportation Plan

# Chapter 11
# Plan Performance

# Introduction

This chapter includes a summary of performance for MOBILITY 2045. Plan performance supports the comparative evaluation of scenario planning alternatives and helps determine the extent to which major goals and objectives are being strived for and achieved.

Performance measures are presented and summarized to illustrate the change in performance between existing conditions and 2045, the planning horizon year for MOBILITY 2045. Plan performance is organized into two major areas:

- **Goals and Objectives** – Performance measures were established for each goal and objective adopted as part of MOBILITY 2045. These measures move the Pasco County MPO toward a more performance-based planning process.
- **Network Performance**–- Numerous alternatives were developed and evaluated throughout the MOBILITY 2045 plan development process. Various alternatives were evaluated using growth scenarios and roadway and transit network scenarios. Although performance measures are available for every scenario, the measures were compiled formally for existing and future conditions.

For additional information, refer to Chapter 5.

# Goals Objectives and Performance Measures

Performance measures were established to track the extent to which objectives are being achieved as a result of MOBILITY 2045. Table 11-1 presents each goal, the objectives associated with the goal, and the corresponding performance measure for each objective.

Targets in the form of desired outcomes have been set for each measure. The measurements recorded indicate the performance that can be expected from the transportation solutions identified for MOBIITY 2045. For comparative purposes, the results of the MOBILITY 2040 measures have been included for performance measures that have been applied consistently.

For each measure, the results column indicates where the expected target has or has not been supported by the MOBILITY 2045 transportation funding decisions.

## Network Performance

A series of system measures were calculated as part of the regional modeling analysis which was coordinated with all MPO's in the Tampa Bay Region. Using the TBRPM, these measures were refined through iterative application and updates during the long range planning process.

**Table 11-1: Summary of Plan Performance by Goals and Objectives**

| Goal # | Objective # | Performance Measure | Target | 2018 Conditions | MOBILITY 2040 | MOBILITY 2045 | Result |
|---|---|---|---|---|---|---|---|
| 1 | 1 | % of truck route roadway centerline miles that are congested | Decrease | 19% | 26% | 14% | Decrease |
| 1 | 1 | % of roadway centerline miles providing access to intermodal facilities that are congested | Decrease | 3% | 13% | 5% | Increase |
| 1 | 1 | Freight travel time reliability (TTTR) | Increase | 1.15% | n/a | n/a | n/a |
| 1 | 1 | Truck hours of delay | Decrease | n/a | n/a | n/a | n/a |
| 1 | 2 | % of population within 1/4-mi of bus route | Increase | 28% | 42% | 31% | Increase |
| 1 | 2 | % of employment within 1/4-mi of bus route | Increase | 35% | 50% | 38% | Increase |
| 1 | 2 | Frequency of bus service (headways) | Increase | 30–60 min | 30 min | 15–30 min | Increase |
| 1 | 2 | % of roadway centerline miles that are congested | Decrease | 3% | 14% | 5% | Increase |
| 1 | 3 | Consistency with Pasco County's Highway Vision Map and Corridor Preservation Program | Policy consistency | - | Yes | Yes | Yes |
| 1 | 4 | Policy commitment to public-private partnerships in LRTP | Policy consistency | - | Yes | Yes | Yes |
| 1 | 5 | % of total transportation revenues allocated by market area | Policy consistency | - | Yes | Yes | Yes |
| 1 | 5 | % of transportation revenues allocated to roadway capacity by market area | Policy consistency | - | Not measured | Yes | Yes |
| 1 | 5 | % of transportation revenues allocated to transit by market area | Policy consistency | - | Not measured | Yes | Yes |
| 1 | 5 | % of transportation revenues allocated to multi-use trails by market area | Policy consistency | - | Not measured | Yes | Yes |
| 1 | 6 | % of tourist destinations served by transit | Increase | 51% | Not measured | 80% | Yes |
| 2 | 1 | # of fatalities | Decrease | 77.6 | Not measured | n/a | n/a |
| 2 | 1 | Rate of fatalities per 100 million VMT | Decrease | 1.73 | n/a | n/a | n/a |
| 2 | 1 | # of serious injuries | Decrease | 1145.2 | Not measured | n/a | n/a |
| 2 | 1 | Rate of serious injuries per 100 million VMT | Decrease | 25.77 | n/a | n/a | n/a |
| 2 | 1 | # of combined non-motorized fatalities and non-motorized serious injuries | Decrease | 121.4 | Not measured | n/a | n/a |

| Goal # | Objective # | Performance Measure | Target | 2018 Conditions | MOBILITY 2040 | MOBILITY 2045 | Result |
|---|---|---|---|---|---|---|---|
| 2 | 2 | % of emergency evacuation route roadway centerline miles that are congested during peak travel periods | Decrease | 9% | 27% | 14% | Increase |
| 2 | 3 | Development of System Safety Program Plan by PCPT | Yes or no | Yes | Yes | Yes | Yes |
| 2 | 3 | Average age of bus fleet | Maintain at 5–7 yrs | 6.2 | 5–7 | 5–7 | Yes |
| 3 | 1 | % of major road network with bicycle facilities | Increase | 32% | Not reported | 62% | Increase |
| 3 | 1 | % of major road network with sidewalks | Increase | 26% | Not reported | 43% | Increase |
| 3 | 1 | % of major road network served by local bus routes | Increase | 23% | 52% | 36% | Increase |
| 3 | 1 | # of regional bus routes | Increase | 3 | 16 | 10 | Increase |
| 3 | 1 | Miles of multi-use trails (includes Conceptual Trails) | Increase | 189 | 103* | 561 | Increase |
| 3 | 2 | % of roadway centerline miles providing access to major activity centers that are congested | Decrease | 3% | 23% | 5% | Increase |
| 3 | 2 | Daily weekday vehicle hours of delay in Pasco County | Decrease | 25,297 | 188,952 | 57,393 | Increase |
| 3 | 2 | # of transit routes providing regional service (across county boundary or connections between W and E Pasco County) | Increase | 3 | 16 | 10 | Increase |
| 3 | 3 | Consistency with local and regional transportation and land use plans | Policy consistency | - | Yes | Yes | Yes |
| 4 | 1 | Consistency of growth projections with Pasco County growth strategy | Policy consistency | - | Yes | Yes | Yes |
| 4 | 2 | Consistency of transportation revenue allocation by market area with Pasco County growth strategy | Policy consistency | - | Not measured | Yes | Yes |
| 4 | 3 | Policy commitment of LRTP to evaluate and mitigate environmental impacts | Policy consistency | - | Yes | Yes | Yes |
| 4 | 4 | % of major road network with bicycle facilities | Increase | 32% | Not reported | 62% | Increase |
| 4 | 4 | % of major road network with sidewalks | Increase | 26% | Not reported | 43% | Increase |
| 4 | 4 | % of major road network served by local bus routes | Increase | 23% | 52% | 36% | Increase |
| 4 | 4 | % of population within 1/4 mi of bus route | Increase | 28% | 42% | 31% | Increase |
| 4 | 4 | % of population within 1 mi of a multi-use trail (including conceptual trails) | Increase | 55% | 84% | 90% | Increase |
| 4 | 5 | # of roadway centerline miles designated as scenic corridors (Suncoast Pkwy and Strauber Memorial) | Increase | 22 | 24 | 22 | No change |
| 4 | 6 | % of roadway centerline miles providing access to major activity centers that are congested | Decrease | 3% | 23% | 5% | Increase |

| Goal # | Objective # | Performance Measure | Target | 2018 Conditions | MOBILITY 2040 | MOBILITY 2045 | Result |
|---|---|---|---|---|---|---|---|
| 4 | 7 | % of total investment allocated to preserve existing roadway network | Increase | 9% | 10% | 14% | Increase |
| 4 | 8 | Transportation disadvantaged/paratransit door-to-door passenger trips | Increase | 197,606 | 377,741 | 271,708 | Increase |
| 5 | 1 | % of roadway centerline miles that are congested | Decrease | 4% | 14% | 7% | Increase |
| 5 | 1 | Transit revenue hours of service per capita | Increase | 0.19 | 1.0 | Not measured | n/a |
| 5 | 1 | Transit ridership (passenger trips) per capita | Increase | 1.6 | 8.4 | Not measured | n/a |
| 5 | 1 | % of major road network with sidewalks | Increase | 26% | Not reported | 43% | Increase |
| 5 | 1 | % of major road network with bicycle facilities | Increase | 32% | Not reported | 62% | Increase |
| 5 | 2 | % of total investment allocated to preserve existing roadway network | Increase | 9% | 10% | 14% | Increase |
| 5 | 3 | Level of funding set aside for short-term congestion/mobility management strategies and technologies | Increase | 1% | 1% | 4% | Increase |
| 6 | 1 | # of events facilitated | Increase | 8 (2035 LRTP) | 14 | 17 | Increase |
| 6 | 1 | # of participants in public participation process | Increase | n/a | 3,600+ | 4,000+ | Increase |
| 6 | 1 | # of techniques used to disseminate information to the public | Increase | 4 (2035 LRTP) | 8 | 11 | Increase |
| 6 | 2 | % of transit improvements to existing transit services that service EJ areas | Increase EJ transit service | - | 42% | Not measured | n/a |
| 6 | 2 | % of new transit service improvements that service EJ areas | Increase EJ transit service | - | 31% | 67% | n/a |
| 6 | 2 | Percent of all transit improvements that service EJ areas | Increase EJ transit service | - | 35% | 92% | n/a |

n/a = data not available

* mile of multi-use trails reported differently for MOBILITY 2040

Additional technical documentation supporting Chapter 11 can be found in the associates standalone Appendix.

- Appendix 11-1 MOBILITY 2045 Cost Affordable Plan Level-of-Service Report
- Appendix 11-2 Tampa Bay Regional Planning Model 2045 Measures of Effectiveness Report