

Central Florida Expressway Authority

# 2045 Master Plan

Final Report | December 2022

## ACKNOWLEDGEMENTS

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On behalf of the Central Florida Expressway Authority (CFX),

As the Central Florida Expressway Authority’s executive director, it is an honor to shepherd this Agency through the next phase of growth as we usher in a new era of transportation. I am pleased to present the 2045 Master Plan, the long-range strategic roadmap that defines CFX’s collective vision. The Master Plan provides a set of goals, guidelines and recommendations to help guide CFX’s future decisions and investments through 2045.

We can all agree that transportation is critical to Central Florida’s economic vitality and well-being. We see that theme across history, and it holds true today in a time of transformative change. Now, enabled by technology and driven by data, our 125-mile expressway system is poised to become more efficient, responsive, sustainable, resilient, and accessible than ever before.

As set forth in the 2045 Master Plan, our goal is to leverage innovation to ensure that our expressway system is both resilient and adaptable, capable of meeting the evolving needs of our expanding population. This approach emphasizes strategic foresight, aiming to avoid short-term fixes in favor of proactive, long-term strategies. This approach has proven effective, allowing us to plan and respond to sudden changes and urgent situations, such as those precipitated by the COVID-19 pandemic.

#### **A Plan Built for a Region on the Move**

The 2045 Master Plan builds upon the accomplishments from the 2040 Master Plan. The vision, goals, and objectives outlined in the 2040 Plan continue to serve as the guiding principles and aspirations for CFX. Customer-centric strategies have once again assumed center stage, highlighting the importance of always prioritizing the needs of our customers, ensuring they are in the driver’s seat.

In the next twenty-five years, our region will experience significant changes. We will welcome over one million new residents and face an aging and increasingly diverse population, both culturally and economically. Demand on our expressway system has never been higher. This is why we spent more than two years listening and gathering critical feedback from the public, a broad base of diverse stakeholders, and the CFX Governing Board about what our region needs to keep it moving through 2045.

As a result, the 2045 Master Plan identifies approximately \$23.9 billion to \$29.2 billion in candidate projects for expansion or improvements across our five-county jurisdiction. To give you an idea of the size, CFX’s jurisdiction is slightly larger than the state of Connecticut. Since a Master Plan is a fiscally unconstrained plan, all the identified candidate projects will require additional analyses to determine whether they are cost feasible.

#### **How can the 2045 Master Plan help you?**

Whether you are a member of the public or a policymaker seeking guidance on regional or local planning, or a private sector professional interested in where the transportation system is heading, this plan is for you. The Executive Summary will help you understand the plan’s purpose, its benefits, and how the plan was developed. From there, the 2045 Master Plan:

- Identifies the candidate projects for future expressways and interchanges (Section 2)
- Identifies candidate projects and strategies to improve the existing system (Section 3)
- Explores the emerging markets and services on the future horizon (Section 4)
- Describes CFX and our system of expressways (Section 5)
- Details future and historical trends on demographics, economy, and travel behavior in Central Florida (Section 6)
- Explores our vision for our future expressway system, the goals and objectives we hope to achieve, and the guidelines we follow to identify projects (Section 7)
- Describes the extensive public and stakeholder engagement effort – survey responses, Board workshops, listening sessions, and public presentations (Section 8)

A special thank you to the many individuals who provided input during the development of CFX’s 2045 Master Plan. We understand the profound responsibility that accompanies every decision we make, every road we build, and every milestone we set. We’re not just constructing expressways; we’re crafting a shared journey, with Central Floridians at the center for generations to come.

Michelle Maikisch  
Executive Director

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## **Section 1**

# **Roadmap to Tomorrow: Executive Summary of the 2045 Master Plan**

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# 2045 Master Plan

The Central Florida Expressway Authority (CFX) is an agency of the state of Florida, created by the Florida Legislature in 2014. It has been given responsibility for the construction, maintenance and operations of expressways in Brevard, Lake, Orange, Osceola and Seminole counties. CFX may also acquire, construct and equip transit, trams and fixed guideways within the right-of-way of the expressway system.

CFX owns and operates a total of 125 center line miles that connect nearly 3 million residents and an estimated 74 million visitors to homes, jobs, services, and attractions. But CFX does far more than connect people to destinations, it plays a central role in this region's economic opportunities, environmental distinctiveness and overall quality of life.

According to the Orlando Economic Partnership, our region continues to welcome more than 1,000 new residents each week, a trend that has persisted for six decades. By 2045 CFX's five-county jurisdiction is estimated to be home to over one million new residents, topping over 4 million, and will have become even more diverse. These changes will impact where people live, how they travel, and the transportation options they will require to meet evolving needs and preferences.

The 2045 Master Plan is a roadmap to propel us forward by identifying future system improvements, new expressways and operating resources needed to provide our region a world-class, integrated mobility network that drives economic prosperity and quality of life over a twenty-five-year horizon.

To build the 2045 Master Plan, thousands of Central Floridians representing a diverse cross-section of stakeholders, state, local and regional partners, subject matter experts and residents have come together to share ideas for a future transportation system that reflects the collective priorities of the region. What we heard reinforced CFX's long-held values of improving system safety, improving mobility and accessibility, and enhancing quality of life. It also reiterated the need for a transportation system that propels transformation, resiliency, and efficiency to meet travel needs in the modern age.

## What Does the 2045 Master Plan Do?

The 2045 Master Plan is a fiscally unconstrained, long-range roadmap for change that:

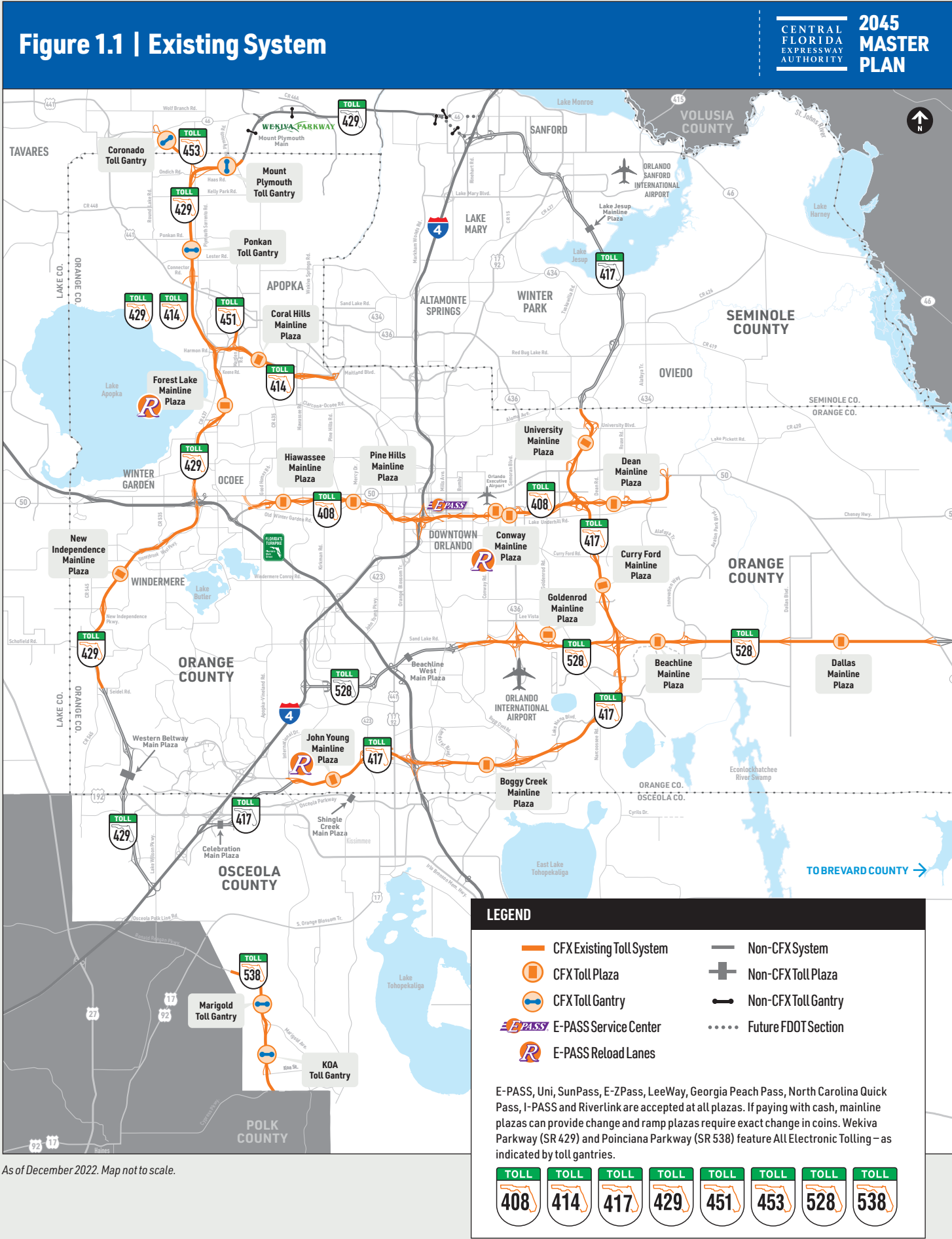
**Provides** a unifying foundational framework for making effective, transparent investment decisions in future projects.

**Anticipates** future conditions and identifies projects to meet travel demand by 2045.

**Offers** preliminary project cost estimates and the available revenue to implement.

**Serves** as the link between CFX's 15-Year Capital Improvement Program and the funded Five-Year Work Plan.

The Master Plan, also known as a needs-based plan, is updated every five years to adapt to emerging technologies, shifts in land use, and the ongoing challenges posed by our region's rapid growth.



Identifying Regional Needs Through 2045

The 2045 Master Plan identified an estimated \$23.9 billion to \$29.2 billion in project investments for the five-county region through the year 2045. As such, CFX evaluated its projected revenues and costs over the same period to determine its financial capacity to implement the identified projects. The evaluation showed that CFX’s funding capacity is \$12.2 billion through 2045. Further analysis will be required in the coming years to determine the cost feasibility and funding options for the identified projects in [Figure 1.2](#).

The 2045 Master Plan identified 11 future expressways and four new interchanges, ([Figure 1.2](#)). Of those identified, two expressways are new to the 2045 Master Plan and the remainder were carried over from the 2040 Master Plan. Summary of notable highlights are below:

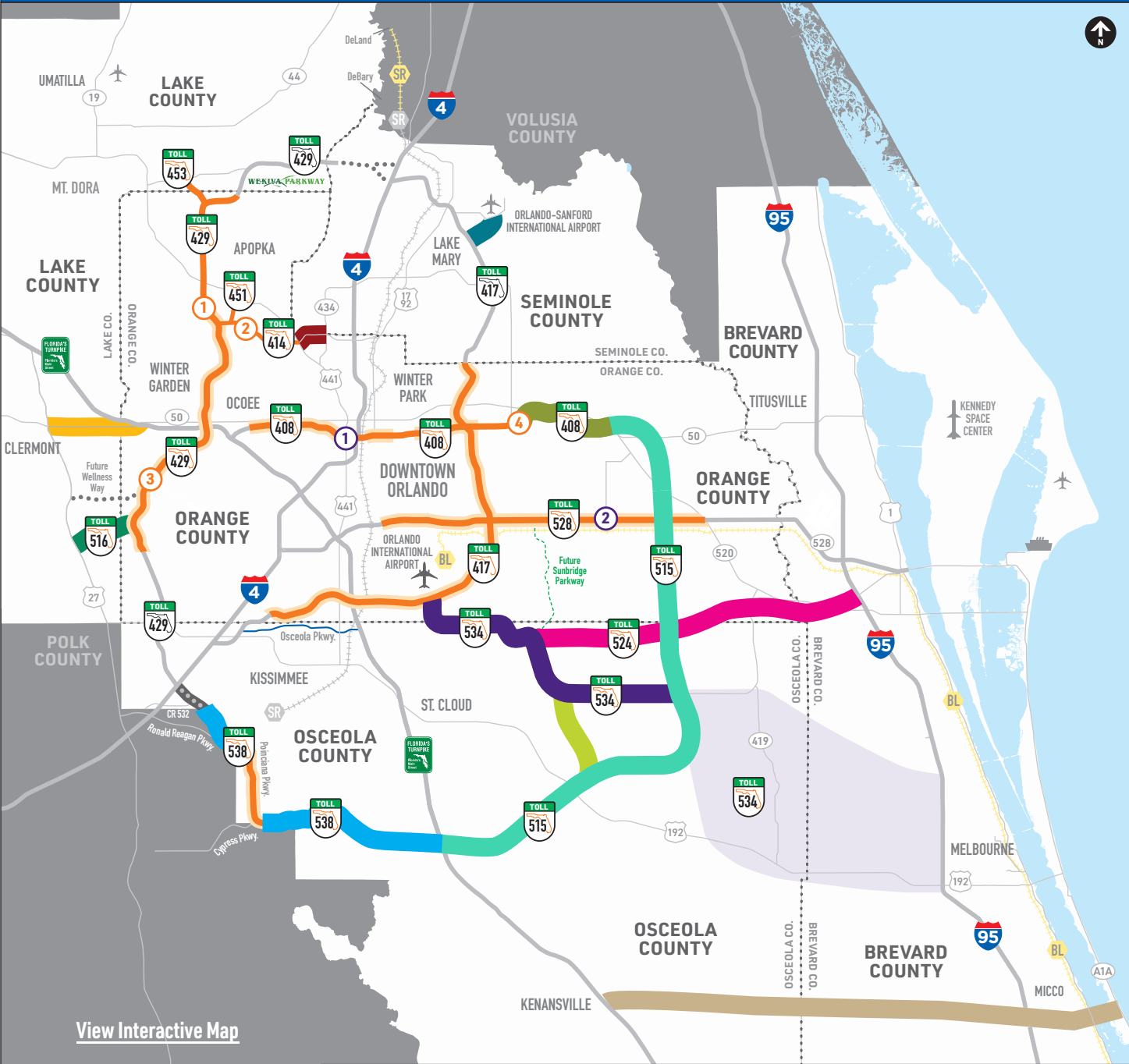
- Identified** a managed lanes project on State Road 50 in Lake County, stretching from U.S. 27 to Florida’s Turnpike in Lake County.
- Identified** new expressway connecting southern Osceola and Brevard counties, starting from Florida’s Turnpike and reaching east to A1A.
- Seamlessly** merging CFX’s Intelligent Transportation Systems (ITS) Master Plan and CFX’s Sustainability Study strategies with future infrastructure planning, design, construction and maintenance.
- Full conversion** of mainline toll plazas to All-Electronic Tolling (AET).

Table 1.1 | Assessing Needs vs. Financial Capacity through 2045

Cost Estimate*	
CFX Funding Capacity	\$12.2B
Identified Project Needs in 5-County Region	\$23.9B - \$29.2B
Funding Gap through 2045	\$11.7B - \$17.0B

\*Estimates in 2022 dollars

Figure 1.2 | Identified \$23.9B - \$29.2B for Future Expressways and System Improvements.



**LEGEND**

- CFX Existing Toll System
- Non-CFX System
- SR Sun Rail
- BL Future Brightline
- SR Future Sun Rail
- Future Poinciana Parkway/ I-4 Connector (By FDOT)
- Future Roads
- Osceola Parkway

**CFX 2045 MASTER PLAN PROJECTS**

**FUTURE EXPRESSWAYS**

- SR 414 | US 441 to SR 434
- SR 50 Managed Lanes US 27 to Florida's Turnpike
- SR 516 | US 27 to SR 429
- SR 538 | CR 532 to Florida's Turnpike
- SR 515 | Florida's Turnpike to SR 408 Eastern Extension
- SR 408 Eastern Extension Woodbury Rd. to SR 50
- SR 534 | SR 417 to I-95
- SR 524 | SR 534 to I-95
- Northeast Connector SR 515 to SR 534
- SR 417 Airport Connector SR 417 to East Lake Mary Blvd.
- Florida's Turnpike to SR A1A

**FUTURE INTERCHANGES**

- 1 SR 429 at Binion Road
- 2 SR 414 at Clarcona Road
- 3 SR 429 near the Independence Mainline Toll Plaza
- 4 SR 408 at Woodbury Road

**INTERCHANGE IMPROVEMENTS**

- 1 SR 408 at Tampa Avenue
- 2 SR 528 at Dallas Boulevard

CFX: Capacity Improvement Projects by 2045

Adopted in December 2022. Map not to scale.

Our Challenges

Amid the rapid growth projected, our region faces a multitude of challenges, and the Central Florida Expressway Authority plays a pivotal role in addressing them. Congestion, stemming from the population boom, threatens to extend commute times, elevate pollution levels, and hamper productivity. Meeting the demands of this growing population requires substantial investments in future expressways, interchanges and in maintaining the existing system.

Financing these projects poses a formidable obstacle due to the significant costs associated with building and maintaining the infrastructure. The 2045 Master Plan outlines a significant challenge related to project funding. There is a projected deficit range of \$11.7 billion to \$17 billion between the total estimated project costs and CFX’s financial capacity to support project development through the year 2045. This financial gap underscores the need for innovative financing solutions, public-private partnerships, and continued collaboration with state and federal agencies.

Connected and automated vehicles are becoming increasingly prevalent; we must quickly adapt to ensure our infrastructure is capable of supporting these changes.

Sustainability is another critical concern as Central Florida seeks to reduce its carbon footprint and meet environmental goals while accommodating rapid population growth.

CFX finds itself at the intersection of these challenges, grappling with increasing congestion, aging infrastructure, and rising maintenance and operational costs. Yet, amidst these challenges, new technologies and transportation models emerge, offering both opportunities and challenges to the tolling industry and CFX.

Our Opportunities

As we look ahead to the next quarter-century, it becomes increasingly evident that the way we travel is undergoing a transformative shift. Vehicle electrification is poised to help reduce emissions and vehicle automation may make driving more appealing. Generational lifestyle differences, such as waning auto-ownership among youth populations, could change the modes we use to get around. Key trends that could have the greatest impact on our future travel preferences include:

**TELEWORK AND DISTANCE LEARNING**  
Teleworking has become more prevalent in the U.S. even before the arrival of coronavirus. In March 2020, 34% of Americans were working from home. The increase in telework, distance learning, telehealth, and online shopping after COVID-19 has had a lasting impact. Many companies, retailers, and restaurants are shifting to permanent online operations. The long-term transportation impacts of this trend are uncertain, but it is clear that virtual activity will affect where people live, work, and how they travel.

**DATA AND INFORMATION TECHNOLOGY**  
Mobile devices are increasingly important for everyday travel. They not only help people get around, but also collect large amounts of data. This data is transforming how transportation systems and services are planned and implemented. Data and information technology enable shared mobility platforms, integrated transit payment and real-time traveler information. These technologies are transforming how residents and visitors travel and will impact our future customers.

**CONNECTED AND AUTOMATED VEHICLES (CAV)**  
Studies suggest that approximately 20% of miles traveled on U.S. roads could be in automated vehicles by 2030. Connected and Automated Vehicles (CAVs) promise safety and network performance benefits, but there are potential drawbacks like increased traffic congestion.

**GOODS AND FREIGHT**  
E-commerce, 3D printing, same-day deliveries, automation, and electrification are transforming freight transportation and land use. Smaller automated warehouses, home deliveries, and autonomous trucks are changing how goods move and impacting employment and urban land use.

**ZERO-EMISSION VEHICLES**  
Electric vehicle (EV) sales are increasing, and it is possible that 37% of all vehicles could be electric by 2042. Wide adoption of Zero-Emission Vehicles (ZEVs) can reduce greenhouse gas emissions but may also affect traffic congestion.

To plan for these challenges while meeting the region’s growing needs, every five years the Central Florida Expressway Authority initiates a comprehensive long-range planning process, referred to as the Master Plan, to identify specific projects to keep this region moving.

Figure 1.3



# The Master Plan Process

The 2045 Master Plan is a blueprint for future decision-making but also a reflection of extensive collaboration, foresight, and planning. Spanning over two years and across five-counties, it synthesizes diverse insights from stakeholders across the spectrum, reflecting a stakeholder-driven, long-range transportation plan that looks to the future. It requires a deliberate, transparent, exhaustive approach to identify the most critical projects needed to accommodate travel demand through the year 2045. Figure 1.3 illustrates our process.

# THE MASTER PLAN PROCESS

## Information Gathering

Information gathering is a crucial step in the process of identifying, evaluating, and selecting candidate projects for inclusion in the long-range Master Plan.

CFX considers the following:

- Demographic and economic forecasts
- Traffic and revenue studies
- CFX plans: CFX 2040 Master Plan, CFX ITS Master Plan, CFX Sustainability Study, and CFX Five-Year Work Plan
- Florida Transportation Plan and Florida’s Turnpike Work Program
- Long-range transportation plans for transportation agencies and regional planning organizations within CFX jurisdiction
- Comprehensive plans for counties and cities within CFX jurisdiction
- New development and land-use plans
- Long-range plans for Florida Department of Environmental Protection, Florida Wildlife Corridor Foundation, Florida National Scenic Trail, Florida Greenways and Trails System
- Five-Year Plans from Florida Water Management Districts
- Academic research and emerging trends in technologies, interoperability, sustainability, connected vehicles, roadway safety
- Input from public, stakeholders and CFX Governing Board

PUBLIC INPUT & STAKEHOLDER FEEDBACK

CFX actively engaged with the public through a listening tour across the five-county jurisdiction. Input on expressway system needs, technology, expansion projects, and multimodal partnerships was gathered. Extensive efforts included virtual and in-person meetings with various stakeholders, city councils, and county commissioners. An online survey sought input on topics ranging from CFX’s ability to maintain the existing expressways today to accommodating future travel with smart road technologies.

Section 8, Public Input, details the public input process, feedback and recommendations, including details from the CFX Governing Board Workshops. All were instrumental in shaping our approach to identify projects, ensuring they will be capable of adapting to regional travel demands through 2045.

The emergence of COVID-19 in 2020 brought about unprecedented disruptions across our society and economy, impacting various facets, including transportation.

In March 2020, Governor Ron DeSantis issued Executive Order 20-52, declaring a statewide emergency in response to the pandemic. This directive, along with state, regional, and local health measures aimed at curbing the virus’s spread, led to immediate disruptions in commuting patterns, work routines, and daily life. The transportation landscape was thrust into a state of flux.

It was within this challenging context that our 2045 Master Plan took shape, beginning in the summer of 2020. Over the course of more than two years, we engaged in extensive research, data collection, outreach efforts, and rigorous analysis. In December 2022, the plan received the approval of the CFX Governing Board.

## Project Eligibility Criteria

Candidate projects must comply with the following:

- State Statute
- Jurisdictional Inclusion
- CFX Vision, Goals and Objectives
- Master Bond Resolution
- CFX Policies and Guidelines

STATE STATUTE

The Central Florida Expressway Authority (CFX) is an agency of the State of Florida, created in 2014, and modified in 2017 to add Brevard County, pursuant to Chapter 348, Part III, Florida Statutes for the purposes of having the power to acquire, hold, construct, improve, maintain, operate, and lease an expressway system, including all approaches, roads, bridges, and avenues for the expressways and any rapid transit, trams, or fixed guideways located within its right-of way and within its geographic boundaries of Brevard, Lake, Orange, Osceola, and Seminole Counties.

MASTER BOND REQUIREMENTS

CFX operates a System of user-financed toll roads. The cost of these roads has been paid by past, present, and future customers traveling on our expressways. As a rule, CFX does not receive tax revenue. Based on the strength of the toll revenue stream, CFX borrows from investors in the municipal bond market. CFX operates under a fiduciary responsibility to our customers and investors who have purchased CFX bonds. Therefore, CFX operates under a set of bond requirements establishing that no project may be bond financed that would cause current debt service coverage covenant to be violated.

MULTIMODAL POLICY

Fund or partner on multimodal initiatives where revenue generated from the investment equals the project cost or where toll user benefits are equal to or exceed the project cost. Candidate projects must comply with CFX’s Master Bond Resolution and CFX’s enabling legislation [s. 348.753, F.S.].

VISION

To provide the region with a world-class, integrated mobility network that drives economic prosperity and quality of life.

MISSION

To build, operate and maintain a mobility network through accountability, fiscally sound practices and a community focus.

FOCUS

Customer-First

# THE MASTER PLAN PROCESS

## Aligning Mission, Goals & Regional Priorities

After candidate projects are confirmed to comply with specified criteria, the next step is to evaluate their alignment with CFX's Vision, Mission, and the objectives and goals outlined in the Master Plan. CFX considers the following:

Does the candidate project support the Master Plan objectives?

- ✓ **Support** a competitive economy by improving mobility and accessibility for people and freight.
- ✓ **Promote** efficient system management and operation.
- ✓ **Emphasize** preservation of the existing expressway system.
- ✓ **Foster** forward-thinking planning to adapt to the changing customer needs, business models, emerging technologies and energy sources.
- ✓ **Expand** transportation technology infrastructure to support automated, connected, electric, and shared vehicles, with an emphasis to improve safety.
- ✓ **Expand** partnerships and strategic investments in community-centric mobility solutions.
- ✓ **Reinforce** CFX's commitment to environmental stewardship by prioritizing sustainable design, mitigating stormwater impacts, and promoting consistency between infrastructure investments and local planned growth and development patterns.

Does the candidate project align with state and local transportation goals and priorities?

- ✓ **Improve** access to resources, markets and jobs to support regional economic development.
- ✓ **Achieve** a significant reduction in congestion.
- ✓ **Achieve** reduction in fatalities and serious injuries.
- ✓ **Improve** the performance of the expressway system, while protecting the natural environment.
- ✓ **Expand** the integration and connectivity of the regional transportation system.
- ✓ **Maintain** infrastructure assets in state of good repair.
- ✓ **Improve** the resiliency and reliability of the expressway system.
- ✓ **Expand** system to support tourism, travel and commerce.
- ✓ **Align** with state and regional long-range transportation plans.

## Scenario Planning: Embracing Future Thinking

What sets the 2045 Master Plan apart is our commitment to strategic foresight in long-term planning. This involved conducting a series of workshops with the CFX Governing Board, where we explored various aspects of our evolving future.

CFX Governing Board Workshop Topics

**February Workshop:** Focused on the examination of Automated Connected Electric and Shared (ACES) vehicles and data-sharing technologies embedded in roadway infrastructure.

**March Workshop:** Highlighted the importance of interoperability and all-electronic tolling, crucial for efficient traffic movement and congestion reduction.

**June Workshop:** Focused on the challenges and opportunities presented by Central Florida's anticipated growth. Traffic forecasts were closely examined for recommended projects and possible options for addressing congestion.

The CFX Governing Board Workshops served as a reminder that we must incorporate flexibility to adapt to new directions as events unfold. By remaining vigilant, we understand that what may seem insignificant today could become tomorrow's norms.

### The workshops reaffirmed the following:

**CFX maintains** an unwavering commitment to adaptability in the face of transportation's evolving landscape.

**CFX aims** to lead in tolling innovation through collaborative research, development, and on-ground implementation.

**CFX seeks** to optimize existing assets and devise strategies to manage congestion to accommodate shifts in travel behavior and customer preferences.

**CFX is focused** on deepening ties with Original Equipment Manufacturers (OEMs) and continuing to foster diverse collaborations.

**CFX places** a priority in preparing its workforce for the future.

# THE MASTER PLAN PROCESS

## Projects Selected for Inclusion in the Master Plan

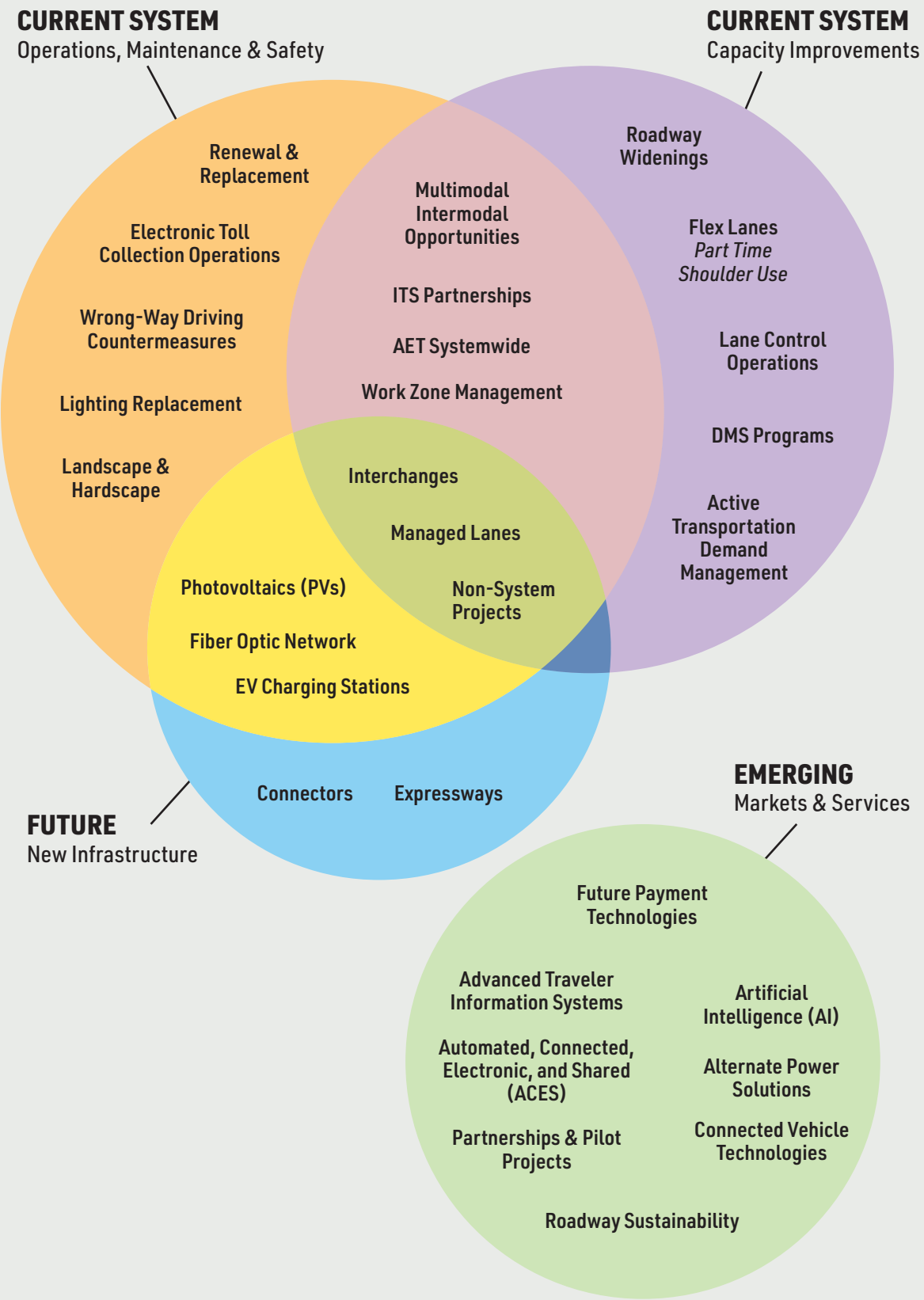
The process for selecting projects for inclusion in the 2045 Master Plan begins with a comprehensive review of projects carried over from the 2040 Master Plan. In addition, new projects are identified through the year 2045. Once the list of potential projects is compiled, preliminary project estimates are conducted, factoring in costs and anticipated benefits.

Figure 1.4 illustrates the common project categories outlined in the Master Plan, as shown in the Venn diagram. The “Emerging Markets and Services” category is not included in the Venn diagram because the initiatives listed are either part of ongoing studies or are in the pilot project stage as of the adoption of the Master Plan. For further details on the Emerging Markets and Services, please refer to Section 04.

## Final Master Plan Approval

The CFX Master Plan approval process follows a structured approach, beginning with a presentation to the CFX Governing Board in the form of a public workshop, where their input is sought. This initial presentation serves as an opportunity to gather feedback and make any necessary adjustments. Following this workshop, the Master Plan, complete with compiled projects, is presented to the governing board for adoption. The 2045 Master Plan was adopted in December 2022.

Figure 1.4 | Master Plan Project Category Summary



## Section 2

# Identified Future Expressways & Interchanges

**2** | Needs Assessment Criteria

**3** | Time Frame Categorization for Project Planning

**4** | 2045 Master Plan Map By Segments

**5** | Total Estimated Cost by Segment Table

### **2045 MASTER PLAN PROJECTS**

**6** | State Road 414 Expressway Extension

**8** | State Road 50 Managed Lanes

**9** | State Road 516

**10** | State Road 538

**12** | State Road 515

**14** | State Road 408 Eastern Extension

**16** | State Road 534

**20** | State Road 524

**21** | Northeast Connector

**22** | State Road 417 Sanford Airport Connector

**24** | Florida's Turnpike to State Road A1A

**26** | Identified Future Interchanges

# More Than Roads, We're Building Futures.

Regional population forecasts predict that 4.4 million people will live in the Central Florida Expressway Authority's (CFX) five county jurisdiction by 2045. As our population grows, so does the demand for goods and services. Traffic forecasts show the significant impact the growth could place on the regional transportation network.

The escalating population demands a forward-thinking transportation blueprint. CFX is in lockstep with the region, advancing an ambitious 2045 Master Plan that identifies between \$17.2 billion to \$22.4 billion in capital investments to meet growing travel demand in one of the fastest growing regions in the country.

The 2045 Master Plan identifies **20 new expressways** and **four new interchange projects**, for a total of **24 projects**. Twenty-two are carried over from the 2040 Master Plan and two are new to the 2045 Master Plan. The new project additions are the SR 50 Managed Lanes project in Lake County and the east-west connector from Florida's Turnpike to State Road A1A in southern Osceola and Brevard counties.

Identifying projects for inclusion in the 2045 Master Plan requires a multi-year effort involving cross-sector collaboration with state, regional, and local partners, extensive research, public engagement, technical analysis, and oversight from the CFX Governing Board.

2045 MASTER PLAN

109 - 206  
Miles of New Expressways

4  
New Interchanges

\$17.2B - \$22.4B\*  
Estimated Capital Investments  
\*in 2022 dollars

## Identified Future Expressways & Interchanges

In the following section, you will find the 2045 Master Plan map by segments and a summary description for each project along with an estimated time frame recommended for design and construction. Recommended for design and construction in this context signifies a reasonable expectation for available funding for partial or full construction of the project at this phase.

### Time Frame Categorization for Project Planning

The projects identified in the 2045 Master Plan feature anticipated time frame categorization helpful for planning.

0-5 YEARS Short-Term Projects	These projects are recommended for design and construction, with partial or full funding included in the CFX Five-Year Work Plan.
5-15 YEARS Mid-Term Projects	These projects are recommended for design and construction within a 5 to 15-year time frame, and are included in CFX's 15-Year Capital Improvement Plan. Some projects identified may be on hold after undergoing a planning study.
15+ YEARS Long-Term Projects	These project(s) are anticipated to be recommended for design and construction beyond the 15 year time frame.

To track project status, visit [cfxway.com](https://cfxway.com).

### Needs Assessment Criteria

The needs assessment criteria is a decision-making tool that helps identify future expressway or interchange projects to be recommended for inclusion in the 2045 Master Plan. The six criteria areas are defined below.

✓

Regional Connectivity

Connects communities, commerce, and key attractions to stimulate economic growth and the quality of life.

✓

Multimodal Options

Incorporates opportunities for multimodal mobility to destinations.

✓

Accommodates Population Growth

Expands accessibility and travel reliability.

✓

Aligns with Existing Transportation Plans

Seamlessly integrates with state, regional and local transportation projects, either ongoing or in the pipeline.

✓

Safety, Resilience, and Evacuation Support

Amplifies safety, designed for resiliency and prepared for emergencies.

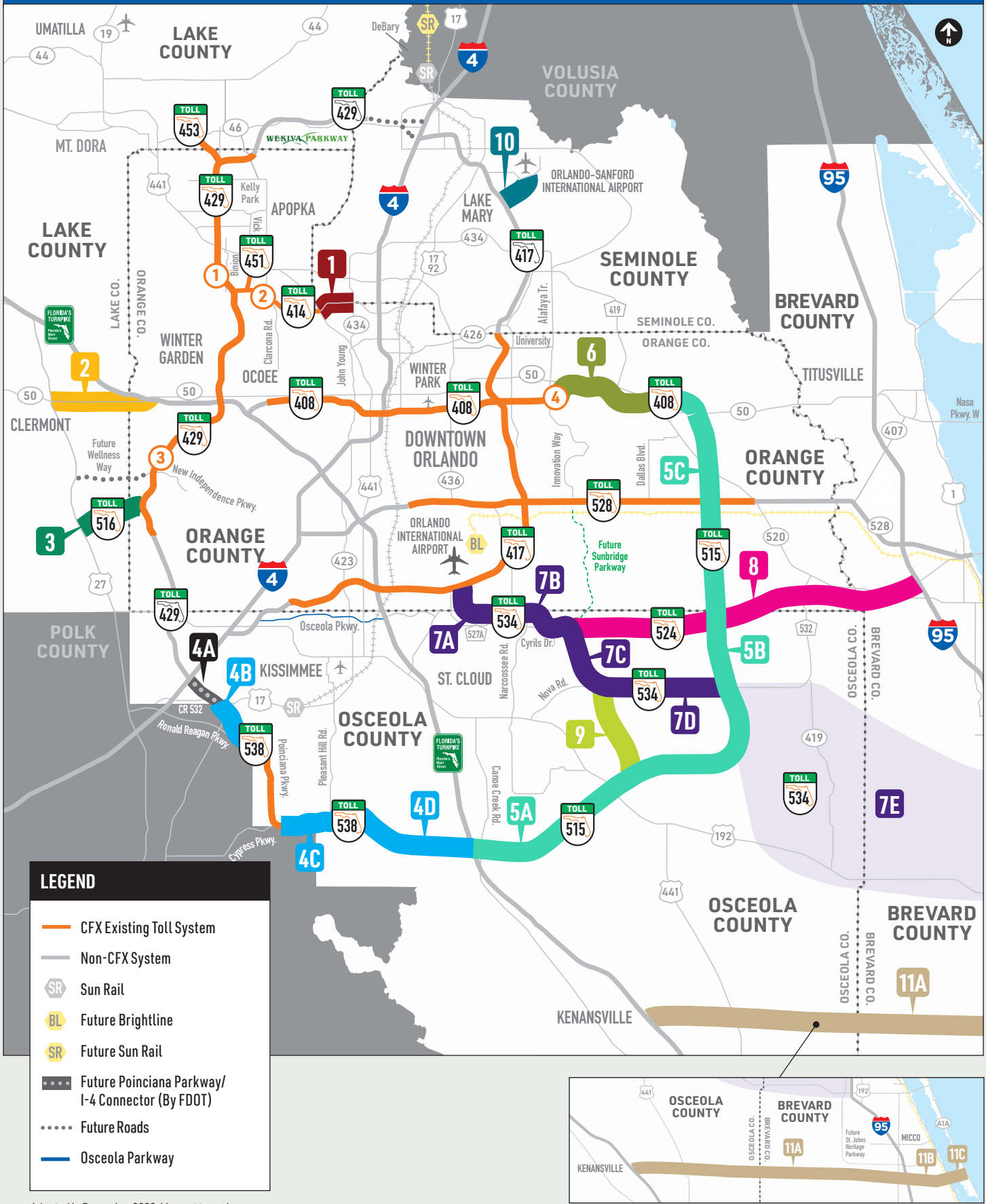
✓

Transformable, Flexible, and Adaptable

Meets the challenges of the present and is modernized to adapt to serve the future.

Figure 2.1 | Identified \$17.2B - \$22.4B for Future Expressways and Interchanges.

CENTRAL  
FLORIDA  
EXPRESSWAY  
AUTHORITY  
2045  
MASTER  
PLAN



Adopted in December 2022. Map not to scale.

Table 2.1 | Total Estimated Cost by Segment

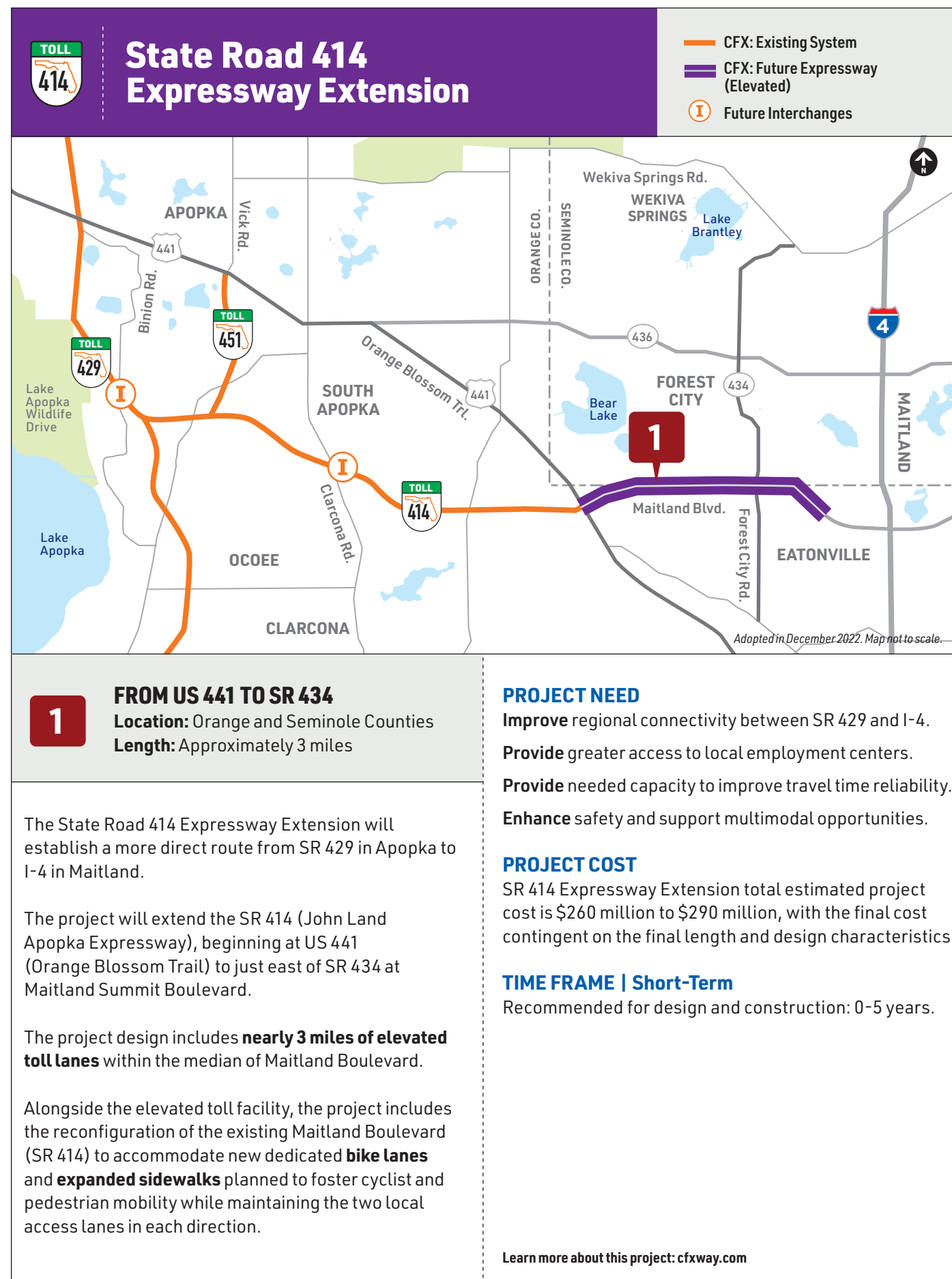
FUTURE EXPRESSWAYS	SEGMENT	FROM	TO	APPROX. LENGTH (MILES)	COST ESTIMATE RANGE (MILLIONS)
SR 414 Expressway Extension	1	US 441	SR 434	3	\$260 - 290
SR 50 Managed Lanes	2	US 27	Florida's Turnpike	6	\$1,520 - 1,900
SR 516	3	US 27	SR 429	5	\$678 - 713
SR 538	4B	CR 532	Poinciana Pkwy.	3	\$327-348
	4C	Cypress Pkwy.	Pleasant Hill Rd.	4	\$1,000 - 1,400
	4D	Pleasant Hill Rd.	Florida's Turnpike	12	\$600 - 800
SR 515	5A	Florida's Turnpike	US 192	11	\$650 - 850
	5B	US 192	SR 528	25	\$1,600 - 2,100
	5C	SR 528	SR 408 Eastern Ext.	10	\$1,100 - 1,350
SR 408 Eastern Extension	6	Woodbury Rd.	SR 50	7	\$1,000 - 1,200
SR 534	7A	SR 417	Narcoossee Rd.	5	\$372 - 414
	7B	Narcoossee Rd.	Future Sunbridge Pkwy.	4	\$175 - 275
	7C	Future Sunbridge Pkwy.	Nova Road	5	\$285 - 340
	7D	Nova Rd.	SR 515	9	\$800 - 900
	7E	SR 515	I-95	22-29	\$900 - 1,550
SR 524	8	SR 534	I-95	23	\$2,000 - 2,400
Northeast Connector	9	SR 515	SR 534	8	\$700 - 900
SR 417 Sanford Airport Connector	10	SR 417	E. Lake Mary Blvd.	2	\$150 - 300
Florida's Turnpike to SR A1A	11A	Florida's Turnpike	I-95	27	\$1,400 - 2,100
	11B	I-95	US 1	6	\$700 - 1,100
	11C	US 1	SR A1A	2	\$850 - 1,100

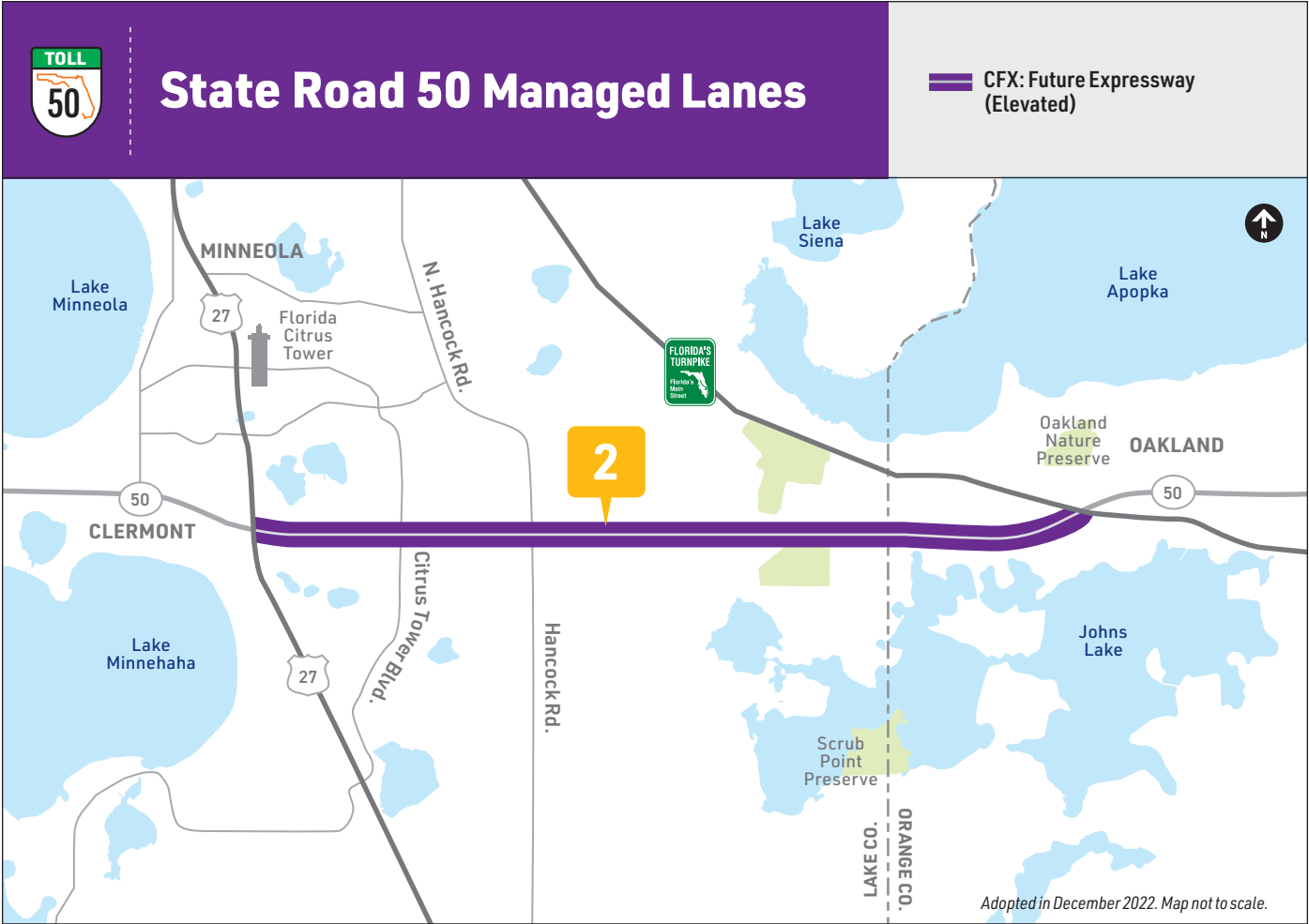
TOTAL ESTIMATED  
MILES  
109-206  
TOTAL ESTIMATED COST  
\$17,067 - 22,330

FUTURE INTERCHANGES		COST ESTIMATE RANGE (MILLIONS)
1	SR 429 at Binion Road	\$30
2	SR 414 at Clarcona Road	\$19
3	SR 429 near the Independence Mainline Toll Plaza	\$20
4	SR 408 at Woodbury Road	\$16

TOTAL ESTIMATED COST \$85

TOTAL ESTIMATED COST | FUTURE EXPRESSWAYS AND INTERCHANGES: \$17,152 - 22,415





**2 FROM US 27 TO FLORIDA'S TURNPIKE**  
**Location:** Lake and Orange Counties  
**Length:** Approximately 6 miles

The six-mile elevated managed lanes project is proposed for State Road 50 from US 27 to Florida's Turnpike. This section of SR 50 east of Clermont in Lake County carries a high volume of traffic.

Many drivers use SR 50 to access Florida's Turnpike and continue their journey to SR 408 in Orlando or other Central Florida destinations. SR 50, however, is an arterial roadway with numerous traffic signals that cause significant delays, affecting operational efficiency, traffic flow, and safety.

**Elevated managed lanes** along this segment of SR 50 have been identified as an option to alleviate congestion and provide for dedicated bus lanes, park-and-ride facilities, and future multimodal connection.

**PROJECT NEED**  
**Enhance** mobility by providing a high-speed expressway option between US 27 and Florida's Turnpike.

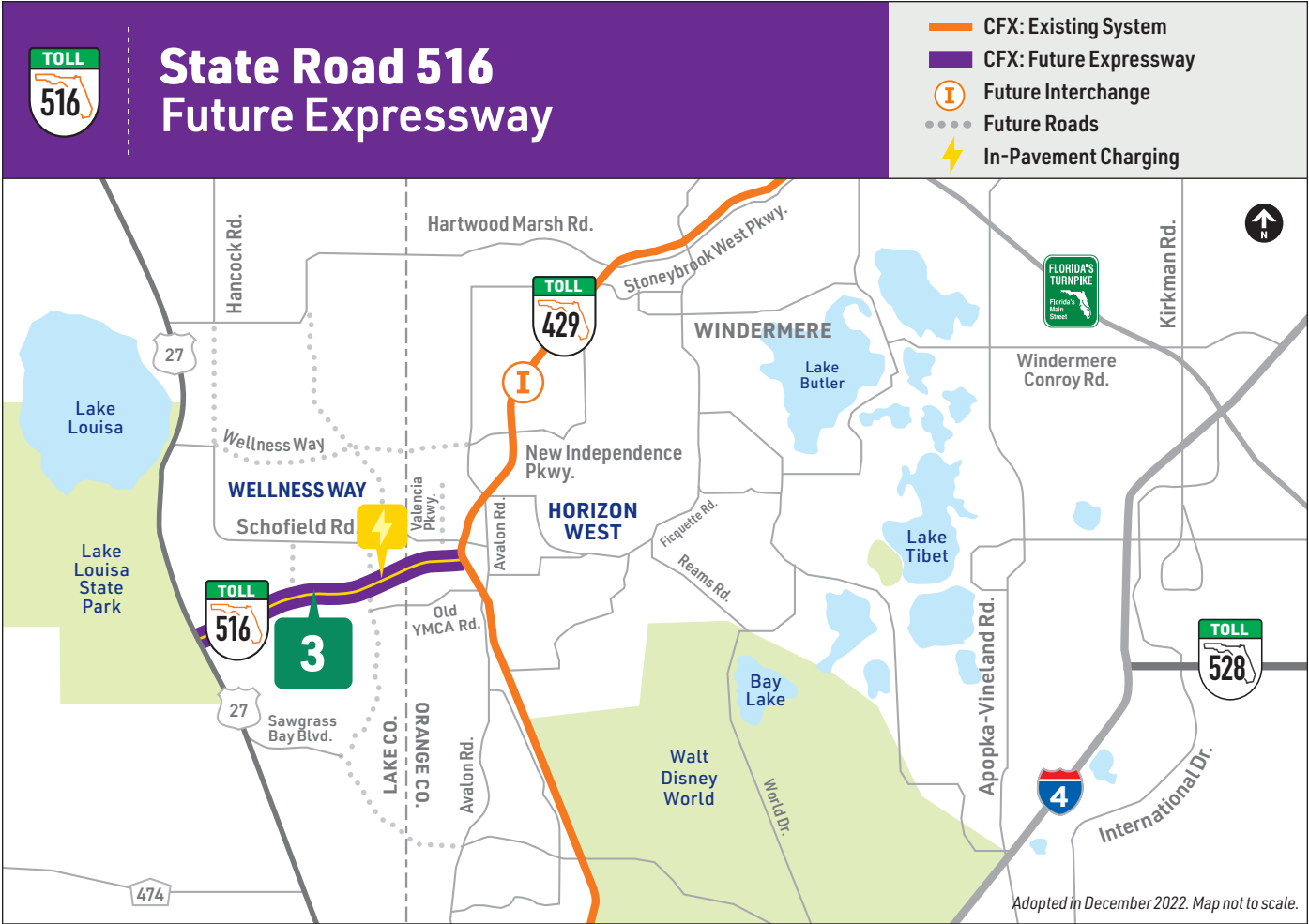
**Reduce** congestion on existing SR 50 and other local roads.

**Enhance** safety and support multimodal opportunities.

**PROJECT COST**  
The estimated project cost is \$1.5 billion to \$1.9 billion, with the final cost contingent on the final length and design characteristics.

**TIME FRAME | Long-Term**  
Recommended for design and construction: 15+ years.

Learn more about this project: [cfxway.com](https://cfxway.com)



**3 FROM US 27 TO SR 429**  
**Location:** Lake and Orange Counties  
**Length:** Approximately 5 miles

State Road 516, a planned 5-mile multimodal expressway, plays a vital role in the larger regional effort to **improve connectivity and mobility** within the rapidly growing Wellness Way area in south Lake County and the Horizon West area in west Orange County.

The new expressway will serve as a direct access route, seamlessly connecting the heavily traveled US 27 in Lake County to SR 429 in Orange County, with interchanges at US 27, CR 455, Valencia Parkway and SR 429. The design realigns US 27 to avoid impacts to Lake Louisa State Park, adds bike/pedestrian trails parallel to SR 516, US 27, CR 455 and Valencia Parkway, and, in coordination with the Florida Wildlife Corridor Foundation, incorporates a wildlife crossing.

Through a partnership with **Advancing Sustainability through Powered Infrastructure for Roadway**

**Electrification (ASPIRE)** – a National Science Foundation Research Center, CFX is integrating an innovative pilot to test an **in-pavement wireless charging system** for electric vehicles. The pilot aligns with CFX's sustainability goals, furthering our commitment to resilient, forward-thinking and resource-efficient transportation solutions.

**PROJECT NEED**  
**Improve** connectivity for Lake and Orange Counties.

**Provide** access to employment centers and support economic vitality.

**Expand** multimodal opportunities.

**Provide** emergency services routes.

**PROJECT COST**  
SR 516 Lake/Orange Expressway estimated project cost is \$678 million to \$713 million, with the final cost contingent on the final design length and design characteristics.

**TIME FRAME | Short-Term**  
Recommended for design and construction: 0-5 years.

**State Road 538 Expressway Extension**

**Legend:**

- CFX: Existing System (Orange line)
- CFX: Future Expressway (Purple line)
- Future Poinciana Parkway/I-4 Connector (By FDOT) (Grey line with cross-ticks)

**Map Labels:**

- Segments:** 4A, 4B, 4C, 4D
- Geographical Features:** Reedy Creek Swamp, Reedy Creek Mitigation Bank, Lake Toho, Lake Russell, East Lake Tohopekaliga
- Roads:** I-4, SR 429, SR 532, SR 17, SR 92, SR 192, Ronald Reagan Pkwy., Poinciana Blvd., Pleasant Hill Rd., Koa St., Cypress Pkwy., Marigold Ave.
- Locations:** CHAMPIONS GATE, DAVENPORT, POLK CO., OSCEOLA CO.
- Infrastructure:** TOLL 538, TOLL 429, TOLL 538, FLORIDA'S TURNPIKE

**4 FROM I-4 TO FLORIDA'S TURNPIKE**

**Location:** Osceola and Polk Counties

**Length:** Approximately 30 miles

The proposed State Road 538 Expressway would serve as a reliable, convenient east-west regional connection and a crucial part of the envisioned outer beltway system.

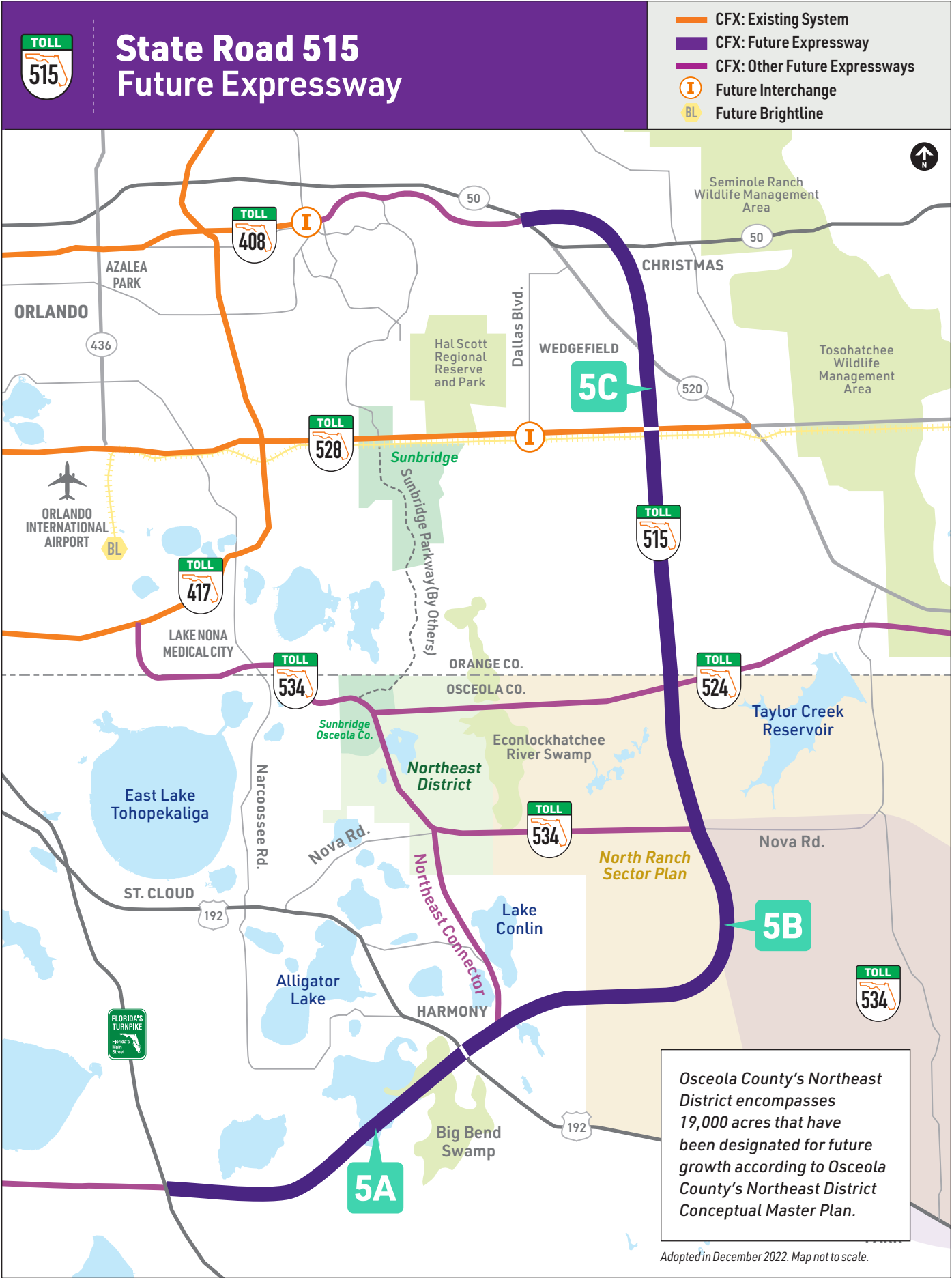
SR 538 Expressway would start at the I-4/SR 429 interchange near the communities of Champions Gate and Reunion in Osceola County and connect into the existing SR 538 at Ronald Reagan Parkway. This future expressway would then extend southeastward, passing through the Poinciana community in Osceola and Polk counties, south of Lake Tohopekaliga (Toho), and eventually connecting to Florida's Turnpike.

As indicated in the map above, **the project is comprised of distinct segments**. Over the years, various studies have assigned different names to

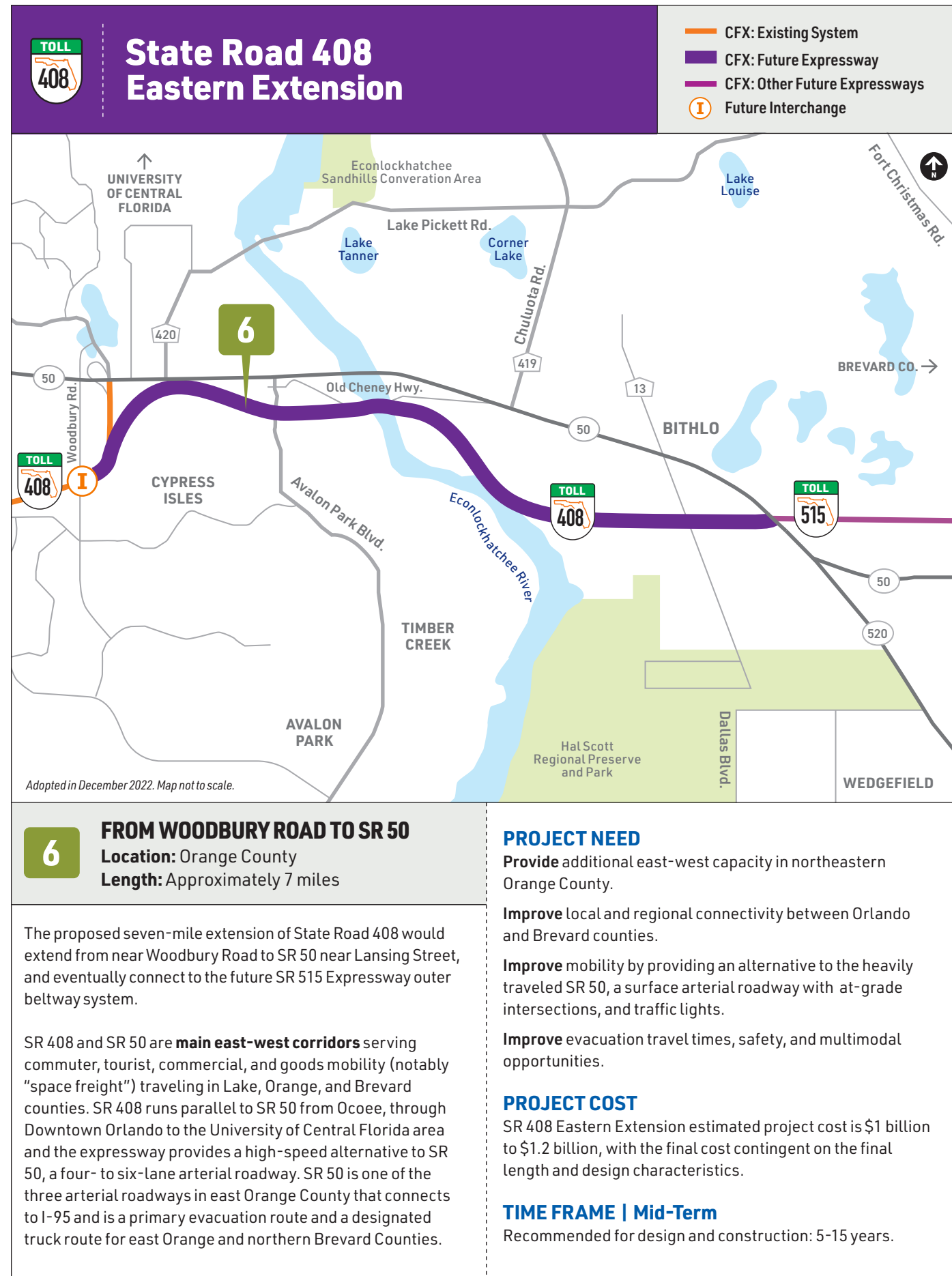
these segments, including the Southport Connector, Poinciana Parkway Extension, Poinciana Parkway Extension Connector, and the existing Poinciana Parkway, which is the only operational segment of SR 538. Typically, the north-south segments are commonly known as Poinciana Parkway, while the east-west segments are referred to as the Southport Connector.

Forecasts indicate significant population growth, expected to double in the next 25 years, along with economic development in Osceola County, particularly in the southern and eastern areas of Lake Toho. The lack of reliable mobility solutions to keep up with this expanding population poses a barrier to economic opportunities and the growth of these emerging population hubs. The proposed SR 538 Expressway was a previously identified need in the CFX 2040 Master Plan, and also aligns with regional transportation plans, including Osceola County's South Lake Toho Conceptual Master Plan 2025.

<div>4A</div> <div>FROM I-4 TO CR 532 (FDOT)</div> <div>Location: Osceola County</div> <div>Length: Approximately 4 miles</div> <p>The Florida Department of Transportation (FDOT) is building the Poinciana Parkway Extension Connector project, which would extend about four miles from I-4 at the SR 429 interchange and connect into CR 532, the terminus of Segment 4B. FDOT and CFX are working together to ensure a seamless connection with CR 532.</p>	<div>4C</div> <div>FROM CYPRESS PARKWAY TO PLEASANT HILL ROAD</div> <div>Location: Osceola and Polk Counties</div> <div>Length: Approximately 4 miles</div> <p>The new 4-mile expressway segment would link to the southern terminus of the existing Poinciana Parkway and provide an expressway option in addition to Cypress Parkway through Poinciana to reach Pleasant Hill Road then, in conjunction with Segment 4D, further connect into Florida's Turnpike. Segments 4C and 4D are commonly recognized as the Southport Connector project.</p> <div>PROJECT NEED</div> <div>Relieve traffic congestion along Cypress Parkway.</div> <div>Improve connections to existing corridors.</div> <div>Accommodate future transit options.</div> <div>PROJECT COST</div> <div>Segment 4C estimated project cost is \$1 billion to \$1.4 billion, with the final cost contingent on the final length and design characteristics.</div> <div>TIME FRAME   Short-Term</div> <div>Recommended for design and construction: 0-5 years.</div>
<div>4B</div> <div>FROM CR 532 TO POINCIANA PARKWAY</div> <div>Location: Osceola and Polk Counties</div> <div>Length: Approximately 3 miles</div> <p>The new 3-mile expressway extension of the existing SR 538 Poinciana Parkway stretches from Ronald Reagan Parkway to CR 532 (Osceola Polk Line Rd.). This extension involves constructing nearly half a mile of bridges over wetlands within the Reedy Creek Mitigation Bank. The design features a diverging diamond interchange at US 17/92, tolled ramps at CR 532, and elevated structures over the CSX railroad, Old Tampa Highway, and US 17/92. Connecting the existing SR 538 Poinciana Parkway to I-4/SR 429 is a significant step in providing relief in this congested area.</p>	<div>4D</div> <div>FROM PLEASANT HILL ROAD TO FLORIDA'S TURNPIKE</div> <div>Location: Osceola County</div> <div>Length: Approximately 12 miles</div> <p>The new 12-mile expressway would extend from Pleasant Hill Road on the west and travel through anticipated residential and commercial development south of Lake Toho and connect into Florida's Turnpike. Segments 4C and 4D are commonly recognized as the Southport Connector project.</p> <div>PROJECT NEED</div> <div>Provide an east-west connection between I-4/SR 429 and Florida's Turnpike.</div> <div>Enhance access to employment centers and existing and future residential areas.</div> <div>Combined, the SR 538 and SR 515, will greatly expand the outer beltway system and expand emergency evacuation routes.</div> <div>PROJECT COST</div> <div>SR 538 Segment 4D estimated project cost is \$600 million to \$800 million, with the final cost contingent on the final length and design characteristics.</div> <div>TIME FRAME   Long-Term</div> <div>Recommended for design and construction: 15+ years.</div>
<div>PROJECT NEED</div> <div>Improve travel time reliability to elevate the region's economic vitality.</div> <div>Increase access and mobility to support one of the fastest-growing areas in Osceola County.</div> <div>Improve regional connectivity in the rapidly developing Poinciana area by providing a direct connection between Poinciana Parkway and, in conjunction with Segment 4A, I-4/SR 429.</div> <div>PROJECT COST</div> <div>SR 538 Segment 4B estimated project cost is \$327 million to \$348 million, with final cost contingent on final length and design characteristics.</div> <div>TIME FRAME   Short-Term</div> <div>Recommended for design and construction: 0-5 years.</div>	



5 FROM FLORIDA'S TURNPIKE TO SR 408 EASTERN EXTENSION Location: Osceola and Orange Counties   Length: Approximately 46 miles		
CFX is planning for future growth in Osceola County Northeast District by proposing the approximately 46-mile State Road 515 Expressway, connecting Florida's Turnpike to the future SR 408 Eastern Extension. This proposed project would create a crucial north-south corridor, linking planned population and job centers, while serving as a key regional connection in the future outer beltway system in Central Florida.  Over the last five years, this area has undergone remarkable growth, primarily driven by the burgeoning development of "Medical City" in Lake Nona, the ongoing establishment of Sunbridge – a 24,000-acre master-planned community spanning across Orange and Osceola counties – and the expanding development of the Harmony master-planned community near US 192 between the City of St. Cloud in Osceola County and Melbourne in Brevard County. With this growth in mind, the SR 515 Expressway was a project previously identified in the CFX 2040 Master Plan.		
5A FROM FLORIDA'S TURNPIKE TO US 192 Location: Osceola County Length: Approximately 11 miles	5B FROM US 192 TO SR 528 Location: Osceola and Orange Counties Length: Approximately 25 miles	5C FROM SR 528 TO SR 408 EASTERN EXTENSION Location: Orange County Length: Approximately 10 miles
The proposed SR 515 Segment 5A is an approximately eleven-mile route that would begin at Florida's Turnpike and connect to US 192 south of the Harmony community. This segment of SR 515, in conjunction with the SR 538 Expressway, will serve as a vital link in a future outer beltway system in Central Florida.  <b>PROJECT NEED</b> <b>Improve</b> regional mobility, allowing travelers from the coast to travel on expressway from US 192 west to Florida's Turnpike and the Poinciana area via the proposed SR 538 Expressway.  <b>Expand</b> system linkage and regional connectivity between SR 429, I-4, the future SR 538 Expressway, Florida's Turnpike, and US 192.  <b>Improve</b> evacuation opportunities and travel times.  <b>PROJECT COST</b> SR 515 Segment 5A estimated project cost is between \$650 million to \$850 million, with the final cost contingent on the final length and design characteristics.  <b>TIME FRAME   Long-Term</b> Recommended for design and construction: 15+ years.	The proposed SR 515 Segment 5B would originate at US 192 and extend approximately twenty-five miles northward to SR 528. This new segment will establish a vital north-south expressway connection. It is designed to efficiently serve the projected population hubs within the planned North Ranch residential and commercial development zone, aligning with the prospective future expressways – SR 524 and SR 534.  <b>PROJECT NEED</b> <b>Connect</b> the future population centers within the planned North Ranch residential and commercial development area to other regional destinations.  <b>Improve</b> regional north-south connectivity and mobility between US 192, the proposed SR 534 Expressway, and SR 528.  <b>PROJECT COST</b> SR 515 Segment 5B estimated project cost is approximately \$1.6 billion to \$2.1 billion with the final cost contingent on the final length and design characteristics.  <b>TIME FRAME   Long-Term</b> Recommended for design and construction: 15+ years.	The proposed SR 515 Segment 5C would begin at SR 528 and continue SR 515 for approximately ten miles to the proposed SR 408 Eastern Extension. Segment 5C would create a north-south expressway between SR 528, SR 50, and SR 408 to serve as a link for the anticipated population centers within the planned North Ranch residential and commercial development area to SR 50, the proposed SR 408 Eastern Extension, and the downtown Orlando area, as well as other regional destinations.  <b>PROJECT NEED</b> <b>Connect</b> the future population centers within the planned North Ranch residential and commercial development area to SR 408, downtown Orlando, and other regional destinations.  <b>Improve</b> regional connectivity and mobility between SR 515 and SR 50 and SR 408.  <b>PROJECT COST</b> SR 515 Segment 5C estimated project cost is approximately \$1.1 billion to \$1.4 billion with the final cost contingent on the final length and design characteristics.  <b>TIME FRAME   Long-Term</b> Recommended for design and construction: 15+ years.





7E

FROM SR 515 TO I-95

Location: Osceola and Brevard Counties

Length: Approximately 22 to 29 miles

There are two identified segment options to extend the eastern terminus of the planned SR 534 at SR 515 to I-95 in central/southern Brevard County. One option is to extend from the eastern terminus of the planned SR 534 at SR 515 to I-95 in central Brevard County for approximately 22 miles. This option would provide a direct connection from the Orlando International Airport, Lake Nona, Sunbridge area, and portions of the North Ranch residential and commercial development area to I-95. Another option is for the expressway to extend from the eastern terminus of the planned SR 534 at SR 515 to I-95 in central/southern Brevard County for approximately 29 miles. Only one of these options is anticipated to be implemented.

PROJECT NEED

**Connect** the future population centers from the Lake Nona and Sunbridge areas, and portions of the North Ranch residential and commercial development area, to I-95 near Melbourne.

**Improve** regional connectivity between Orange, Osceola, and Brevard Counties and form part of an alternative regional east-west connection from SR 417 to I-95.

**Enhance** safety and support multimodal opportunities.

PROJECT COST

Estimated project cost for these options is \$900 million to \$1.6 billion, with the final cost contingent on the final length and design characteristics.

TIME FRAME | Long-Term

Recommended for design and construction: 15+ years.

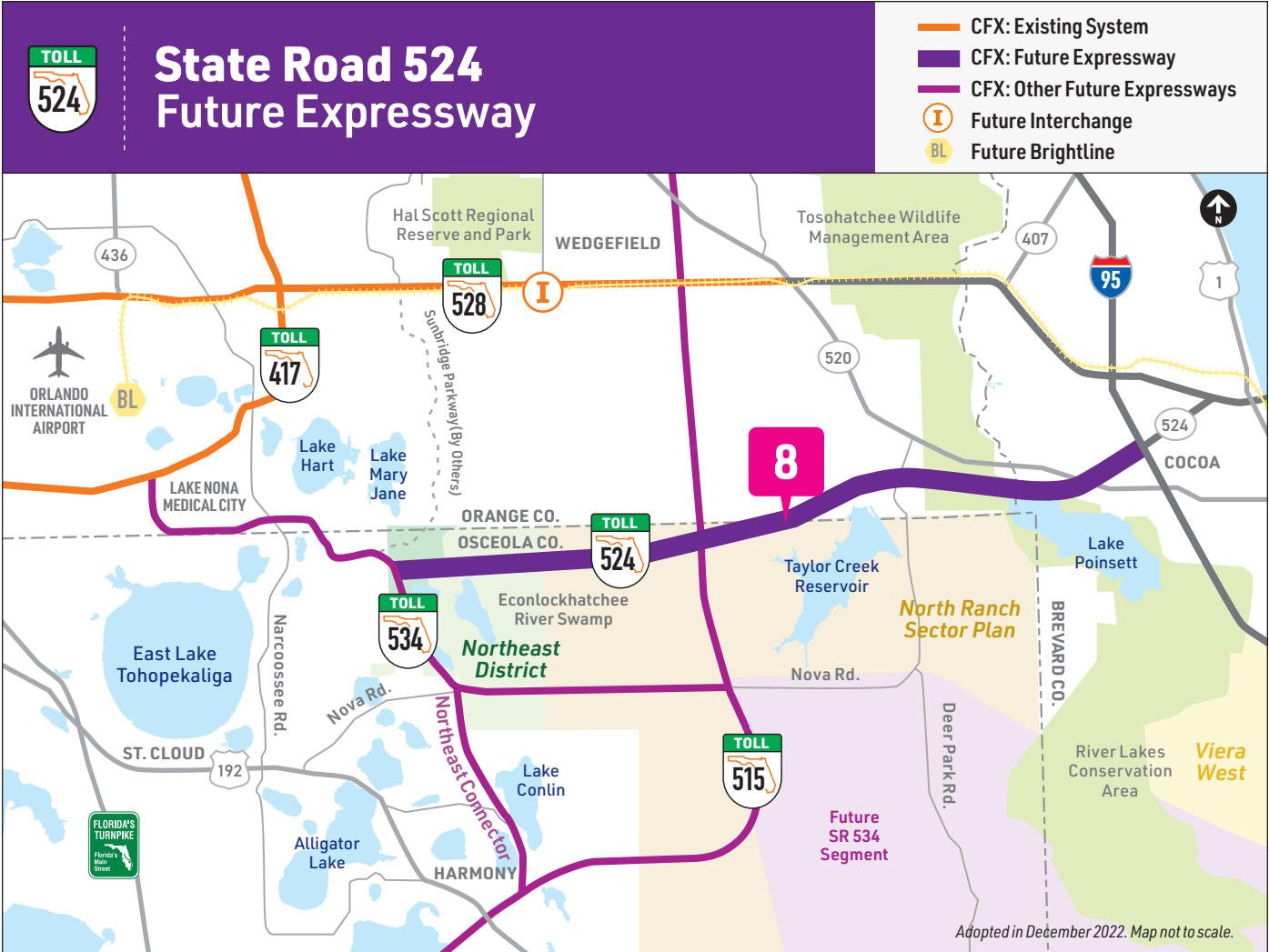
Learn more about this project: [cfxway.com](https://cfxway.com)

An aerial photograph of a multi-lane highway, identified as State Road 417. The highway has several lanes in each direction, with a dedicated toll lane on the right side. Overhead signs indicate the toll lane and provide instructions for cash and electronic payment. The highway is flanked by green grass and trees, and there are some buildings visible in the distance. The image is taken from a high angle, looking down the length of the highway.

18 | Central Florida Expressway Authority 2045 Master Plan

Cost estimate base year 2022.

2045 Master Plan Central Florida Expressway Authority | 19



**8 FROM SR 534 TO I-95**  
**Location:** Brevard, Orange, and Osceola Counties  
**Length:** Approximately 23 miles

The proposed SR 524 Expressway is a 20- to 25-mile **multimodal corridor** spanning the Orange and Osceola County line. It establishes a regional connection between the future SR 534 Expressway and I-95 in northern Brevard County.

Among the existing east-west highway connections spanning Brevard, Orange, and Osceola counties – SR 520, SR 528, and SR 50 – only SR 528 operates as a high-speed, limited-access expressway, running from I-4 in Orange County to northern Brevard County. The proposed SR 524, in conjunction with SR 534 and SR 417, is a **mobility solution** to this pressing transportation challenge, offering an additional much-needed, uninterrupted east-west connection between I-4 and I-95.

As noted, this connection aligns with the future expressway system, including the SR 534 Expressway and the established interstate network of I-4 and I-95. Importantly, the SR 524

project aligns with the development goals of Osceola County’s **Northeast District Conceptual Master Plan**, a master-planned community in northeast Osceola County, as well as the North Ranch Sector Plan.

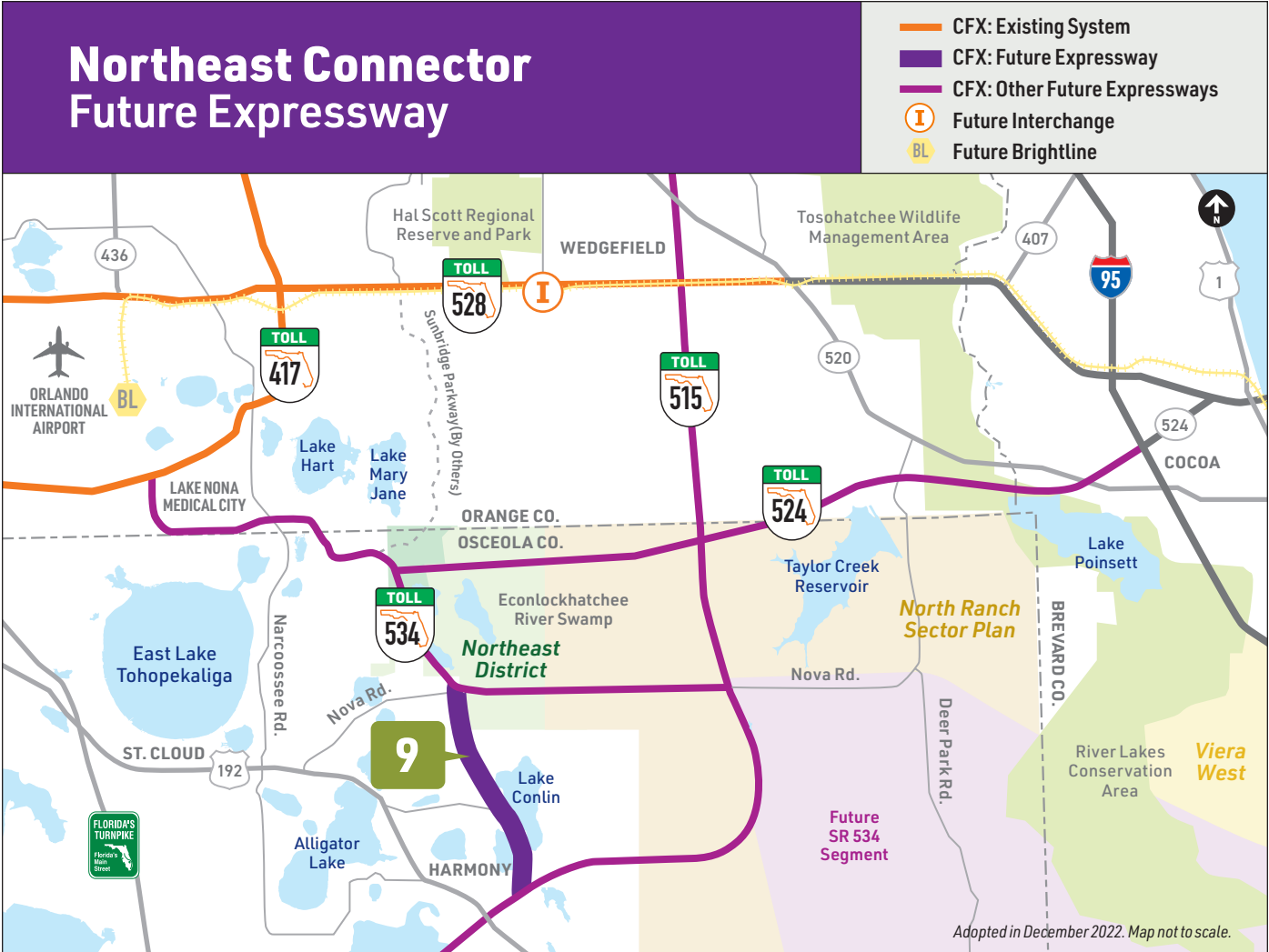
**PROJECT NEED**  
**Respond** to the increased east-west mobility demand resulting from projected population growth in Brevard, Osceola, and Orange counties, expected to double in the next 40 years.

**Establish** an alternative regional link between SR 417 Expressway in Orange County and I-95 in Brevard County.

**Enhance** safety and disaster resilience, particularly for travel to and from Brevard County during extreme weather.

**PROJECT COST**  
SR 524 Expressway estimated project cost is \$2 billion to \$2.4 billion, with the final cost contingent on the final length and design characteristics.

**TIME FRAME | Long-Term**  
Recommended for design and construction: 15+ years.  
**Learn more about this project:** [cfxway.com](http://cfxway.com)



**9 FROM SR 515 TO SR 534**  
**Location:** Osceola County  
**Length:** Approximately 8 miles

The proposed Northeast Connector Expressway is approximately eight miles and would offer an alternate route to US 192 and US 441 through the city of St. Cloud in Osceola County. Beginning at SR 515 and US 192 near the Harmony community, the proposed expressway would travel north to the interchange of the planned SR 534, Segment 7C at Nova Road.

**PROJECT NEED**  
**Enhance** the expressway system linkage and regional connectivity by introducing an alternative north-south route to access the Orlando International Airport and the greater Orlando area.

**Expand** connectivity between existing east-west corridors, ensuring improved accessibility.

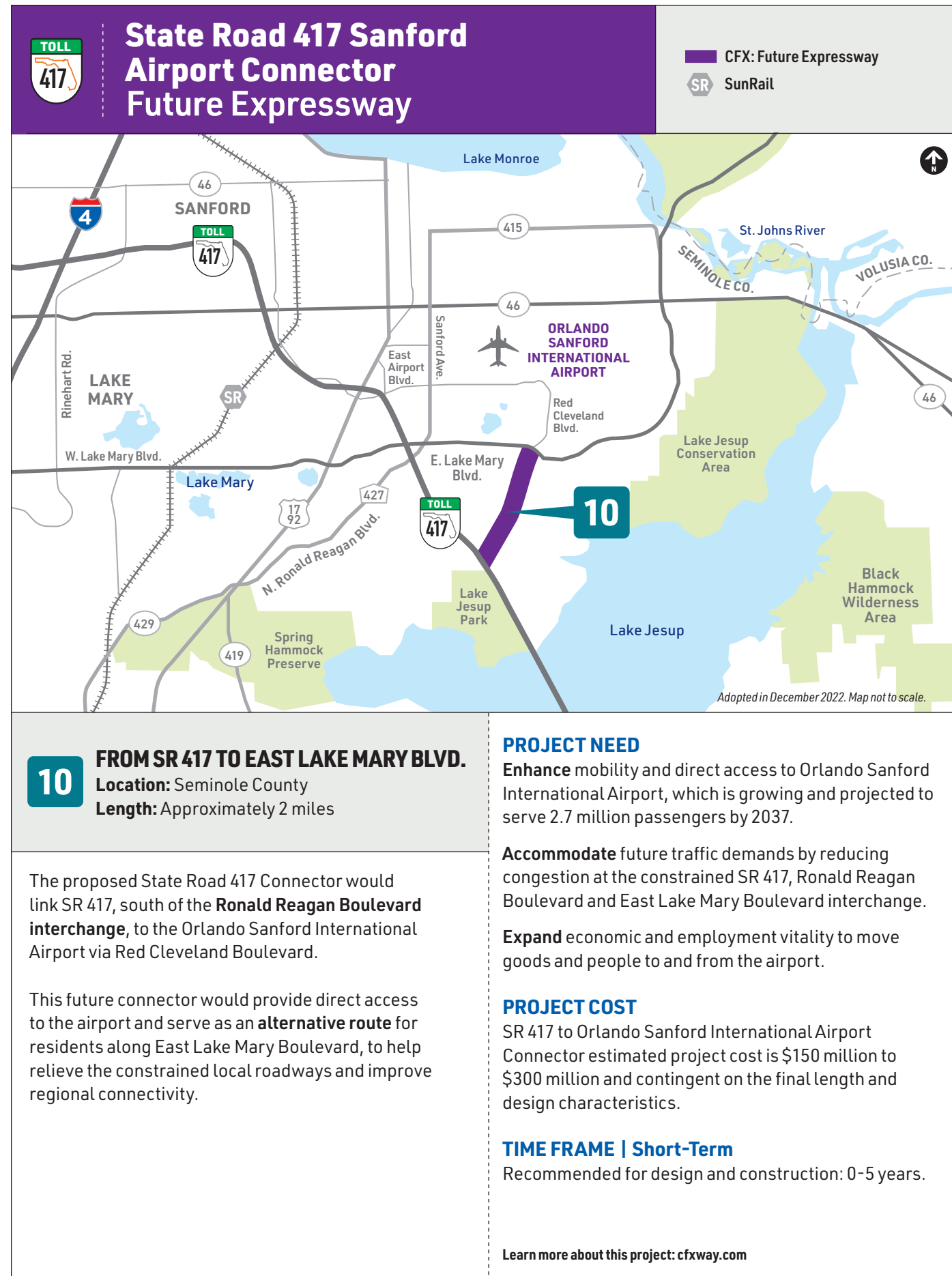
**Alleviate** congestion on heavily traveled routes such as US 192 and US 441 by providing a dedicated expressway alternative.

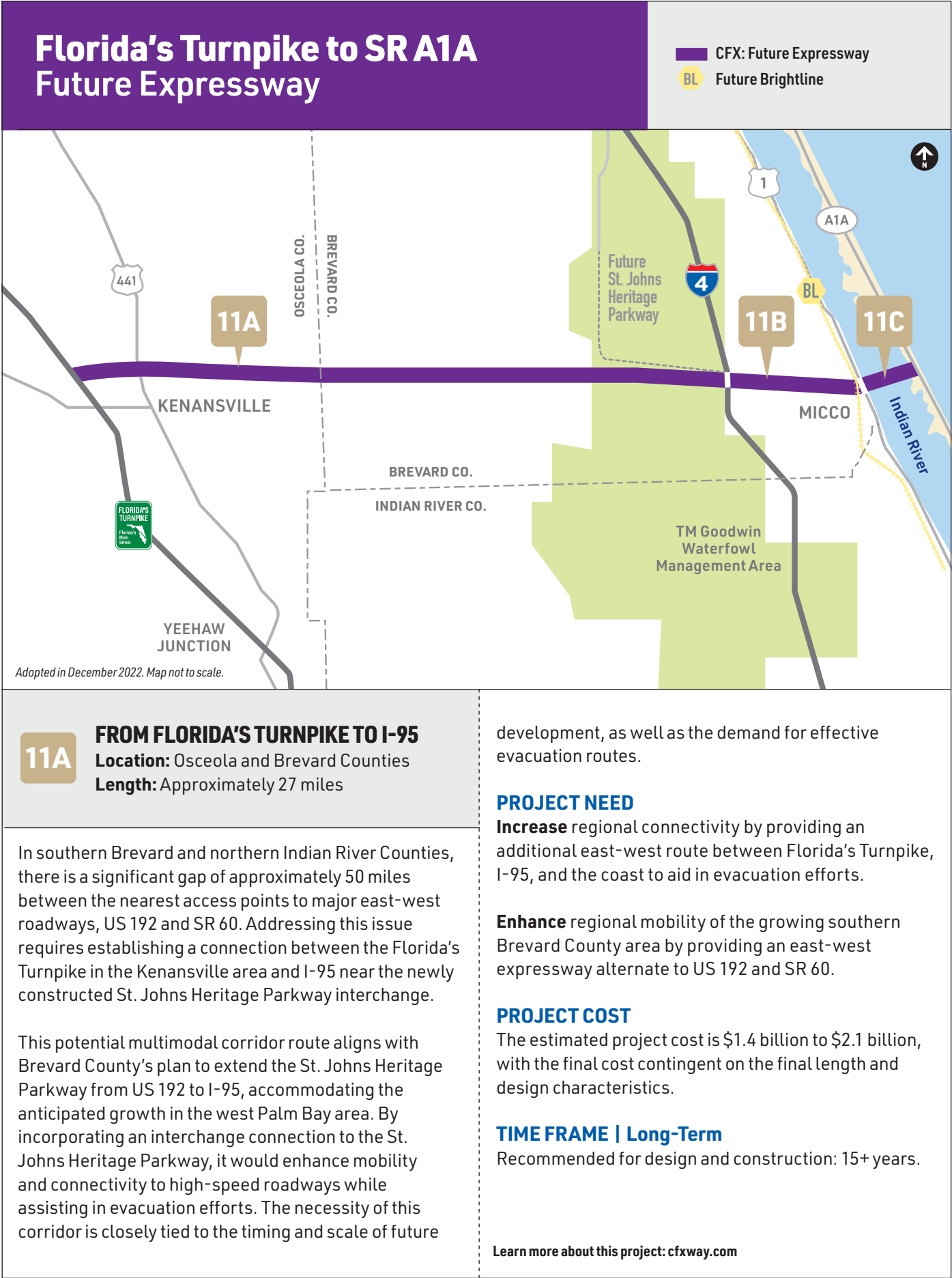
**Create** opportunities for multimodal transportation options.

**PROJECT COST**  
Northeast Connector Expressway estimated project cost is \$700 million to \$900 million, with the final cost contingent on the final length and design characteristics.

**TIME FRAME | Long-Term**  
Recommended for design and construction: 15+ years.

**Learn more about this project:** [cfxway.com](http://cfxway.com)





# Identified Future Interchanges

As Central Florida continues to grow, our transportation network must adapt to effectively serve our community. The 2045 Master Plan has identified four interchange projects based on projected traffic volumes, population growth projections, anticipated development and local feedback.

**LEGEND**

- CFX Existing Toll System
- Non-CFX System
- Sun Rail
- Future Brightline
- Osceola Parkway

Adopted in December 2022. Map not to scale.

Outlined below are the future interchanges as illustrated on the map.

1

**SR 429 AT BINION ROAD**  
Location: Orange County

Northwest Orange County requires transportation improvements to address pressing needs. The area’s rapid growth and development have led to challenges in accessing SR 429 (Daniel Webster Expressway), with only two access points available in the southwest Apopka area. CFX identified the need for a new half interchange (northbound entrance, southbound exit) at SR 429 and Binion Road. The proposed interchange would improve access to SR 429 for local drivers using US 441, SR 46, and the Wekiva Parkway.

**PROJECT NEED**  
**Improve** mobility and access to and from major origins and destinations in northwest Orange County including employment centers in Apopka.  
**Improve** safety at the existing intersection at Binion Road.  
**Improve** future connectivity to the regions north–Mount Dora, Tavares, and Eustis.

**PROJECT COST**  
The estimated project cost is \$30 million, with final cost contingent on specific interchange design characteristics.

**TIME FRAME | Mid-Term**  
Recommended for design and construction: 5-15 years.

2

**SR 414 AT CLARCONA ROAD**  
Location: Orange County

The south Apopka area currently faces limited access to Clarcona Road (CR 435), relying on an indirect route through the existing half interchange at Keene Road. This poses challenges and inconvenience for motorists. To address this issue, a proposed new half interchange at Clarcona Road would provide residents of the south Apopka area with improved connectivity and direct access to Clarcona Road.

**PROJECT NEED**  
**Provide** additional access to SR 414 and alleviate congestion on local roads.  
**Improve** connectivity and convenience for residents and businesses in the Apopka area.  
**Support** economic growth and development in the Apopka area.

**PROJECT COST**  
The estimated project cost is \$19 million, with final cost contingent on specific interchange design characteristics.

**TIME FRAME | Mid-Term**  
Recommended for design and construction: 5-15 years.

3

**SR 429 NEAR THE INDEPENDENCE MAINLINE TOLL PLAZA**  
Location: Orange County

The Stoneybrook Road half interchange (southbound exit, northbound entrance) on SR 429 added in 2021 provides additional access for residents and visitors and relieves congestion at the CR 535 (Winter Garden Vineland Road) interchange. However, due to continued development in the Horizon West area, the need for an additional new interchange on SR 429 should be considered. Two potential new interchange locations for evaluation are the Tilden Road and Malcolm Road crossings of SR 429.

**PROJECT NEED**  
**Improve** connectivity in southwest Orange County.  
**Improve** access to SR 429 to support existing and future economic development.

**ADDRESS** safety and congestion driven by increasing population.

**PROJECT COST**  
The estimated project cost is \$20 million, with final cost contingent on specific interchange design characteristics.

**TIME FRAME | Mid-Term**  
Recommended for design and construction: 5-15 years.

4

**SR 408 AT WOODBURY ROAD**  
Location: Orange County

The proposed new half interchange at SR 408 and Woodbury Road would facilitate easier entry and exit onto SR 408. Currently, there is a half interchange (eastbound exit, westbound entrance) at Alafaya Road that primarily serves retail and commercial establishments but also experiences heavy traffic from residents of Waterford Lakes and Waterford Chase neighborhoods. With ongoing development in the area, the existing interchange will face increased demand beyond its capacity. A half interchange is needed at Woodbury Road (eastbound exit, westbound entrance) to provide drivers better connectivity to SR 408, while alleviating congestion at the Alafaya Road interchange.

**PROJECT NEED**  
**Provide** better access to SR 408, allowing for improved mobility in the area.  
**Meet** the growing demand and accommodating future traffic volumes by adding an additional access point.  
**Reduce** travel times by alleviating congestion at the existing interchange.

**PROJECT COST**  
The estimated project cost is \$16 million, with final cost contingent on specific interchange design characteristics.

**TIME FRAME | Mid-Term**  
Recommended for design and construction: 5-15 years.

Learn more about these projects: [cfxway.com](https://cfxway.com)

## Section 3

# Recommendations: Expressway System Improvements

- 2 | Network and System Needs
- 3 | Identifying System and Network Needs
- 4 | Our Approach to Congestion Management
- 5 | Identified Flex Lane Use Map
- 6 | Existing System Improvement Projects Map
- 7 | System Capacity Needs
- 7 | Interchange Needs
- 8 | Daily Traffic (AADT) Forecasts at Mainline Plaza
- 9 | Renewal & Replacement Program
- 10 | Facility Needs: All-Electronic Tolling
- 11 | System Capacity, Preservation and Operational Needs

# Network and System Needs

## WHAT DO WE NEED TODAY AND IN THE FUTURE?

Maintaining the expressways, bridges, interchanges, intelligent transportation system (ITS) technologies, and other assets that make up the Central Florida Expressway Authority’s (CFX) 125-mile system of toll roads is critical to moving people and goods safely and efficiently.

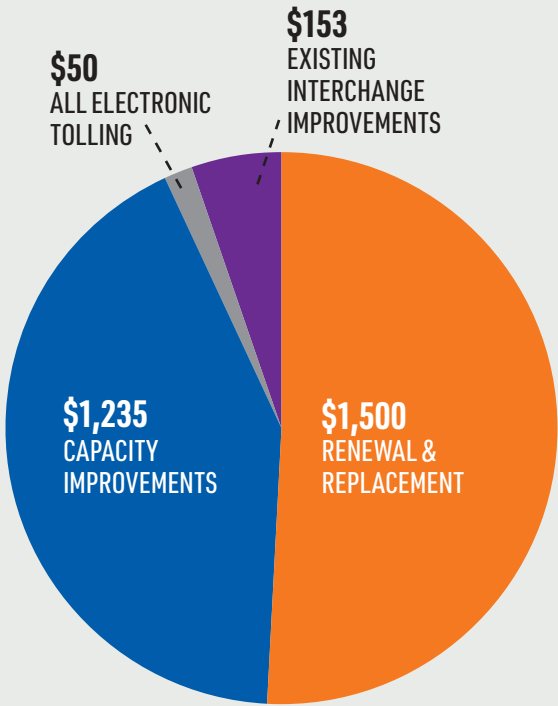
Over the next 25 years, the estimated costs to maintain, operate, and preserve the system expressways and facilities amounts to \$2.9 billion (Figure 3.1). The sum reflects the estimated level of investments required to modernize infrastructure to meet the forecasted 35% population growth across CFX’s five-county jurisdiction. We are guided by a process by which we may adjust the size, function, and composition of existing infrastructure and service portfolios either by lane expansions or reductions, installing safety countermeasures, and piloting advanced technologies.

By 2045, CFX’s jurisdiction of Brevard, Lake, Orange, Osceola and Seminole counties population is expected to grow by more than 35% according to University of Florida’s Bureau of Economic and Business Research (BEBR).

**Figure 3.1 | 25-Year System Capacity, Preservation & Operation Needs** (in millions of U.S. Dollars)  
The 2045 Master Plan identified an estimated \$2.9 billion in system capacity and improvements to meet forecasted population growth through 2045.

### TOTAL: \$2.9 BILLION

- CAPACITY IMPROVEMENTS**  
We identified 75 miles of roadway widenings to alleviate congestion in high-traffic corridors, thereby improving overall system performance.
- EXISTING INTERCHANGE IMPROVEMENTS**  
We’ve identified two interchange improvement projects to enhance accessibility and connectivity in congestion hotspots.
- TRANSITION TO ALL ELECTRONIC TOLLING (AET)**  
As part of our modernization efforts, we will transition to All Electronic Tolling (AET) systemwide.
- RENEWAL & REPLACEMENT**  
We retain a proactive approach to preventative maintenance and preservation performance targets.



## Identifying System and Network Needs

The Central Florida Expressway Authority (CFX) system encompasses 125 miles of toll roads with 870 lane miles, 73 interchanges, 364 bridges and 19 mainline toll facilities as of December 2022. On average, over 1.5 million toll transactions are recorded every day.

CFX’s expressway system supports a significant portion of the region’s traffic today. To maintain reliability through 2045, we must continue to invest in maintaining and preserving our expressway system, bridges, interchanges, toll facilities and technologies. Our proactive approach in identifying future needs is shaped by our **strategic imperatives**. By doing so, we aim to deliver a system built for the 21st century.

### Our Strategic Imperatives

- Safe Public. Safe Workers. Safe Design.**
- **Improve system safety for drivers, workers, and first responders** by advancing innovative practices in work zone safety, around emergency vehicles and in roadway design.
  - **Expand the use of Transportation Systems Management and Operations** to support real-time operations and provide real-time information during events.
  - **Use data and analytics** to take proactive actions to address emerging safety risks and support compliance.
- Agile, Reliable and Resilient**
- **Design flexibility into system improvements** to adapt to changing customer needs, business models, mobility options, technologies, and energy sources.
  - **Improve expressway capacity, interchange design, and interconnectedness** with other modes of transportation like local roads or transit to handle future growth while maintaining acceptable levels of service.
  - **Ensure the system remains responsive** to, and aligned with state, regional and local long-range growth plans and the expanding modes of multimodal travel.
- Design for the Future**
- **Work with diverse stakeholders** to share noteworthy practices and accelerate the adoption of innovations and technologies.
  - **Modernize existing system** by integrating recommendations from the CFX Intelligent Transportation Systems (ITS) Master Plan.
  - **Adopt the recommendations from the 2019 CFX Sustainability Study** to mitigate environmental impacts.

## Our Approach to Congestion Management

**DEFINING THE CHALLENGE:** Central Florida’s quality of life and economic competitiveness are closely related to the degree the transportation system can provide an acceptable level of mobility. Congestion is the level at which the system performance is no longer acceptable due to traffic interference.



Congestion stems from seven primary root causes. Understanding these interdependencies is fundamental for devising effective congestion mitigation strategies.

- 1. Physical Bottlenecks (“Capacity”):** Capacity, influenced by factors like lane and shoulder numbers and width, interchange merge areas, and roadway alignment, dictates traffic flow.
- 2. Traffic Incidents:** Disruptions such as crashes, breakdowns, or debris obstructing travel lanes impede traffic flow.
- 3. Work Zones:** Construction activities altering the roadway, like lane reductions, diversions, or closures, disrupt traffic patterns.
- 4. Weather:** Environmental conditions can alter driver behavior, impacting traffic flow.
- 5. Traffic Control Devices:** Poorly timed signals intermittently disrupt traffic flow.
- 6. Special Events:** Surges in traffic demand during events overwhelm the system, causing fluctuations.
- 7. Fluctuations in Normal Traffic:** Day-to-day variability in demand leads to some days with higher traffic volumes than others.

### Adapting to Change: Integrating ITS into Congestion Management

CFX has incorporated key elements from our ITS Master Plan into the 2045 Master Plan. We call this a strategic merger because it enables us to combat congestion by implementing cutting-edge technology and improving capacity. Focusing keenly on safety, technological advancement, and optimizing access to critical services, CFX endeavors to elevate overall system performance and reliability in alignment with ITS principles.

### Driving Forward: Strategies for Congestion Management

To address congestion, below are key actions proposed to alleviate congestion and enhance traffic flow within the expressway system. These strategies encompass a range of approaches, from physical infrastructure

enhancements to advanced technology integration, aimed at optimizing mobility and improving the overall commuter experience.

**Addition** of capacity through widening expressways with additional lanes.

**Improving** existing interchanges to accommodate additional traffic.

**Designating** lanes for use of vehicles with multiple occupants or for buses.

**Designating** lanes that change their toll price based on current traffic conditions.

**Regulating** where and how motorists can enter and exit the expressway.

**Evaluating** the implementation of managed lanes for general use or use by Connected Automated Vehicles (CAVs).

**Incorporating** additional shoulder width to provide additional lanes, known as Flex Lanes, when congestion is present (Figure 3.2).

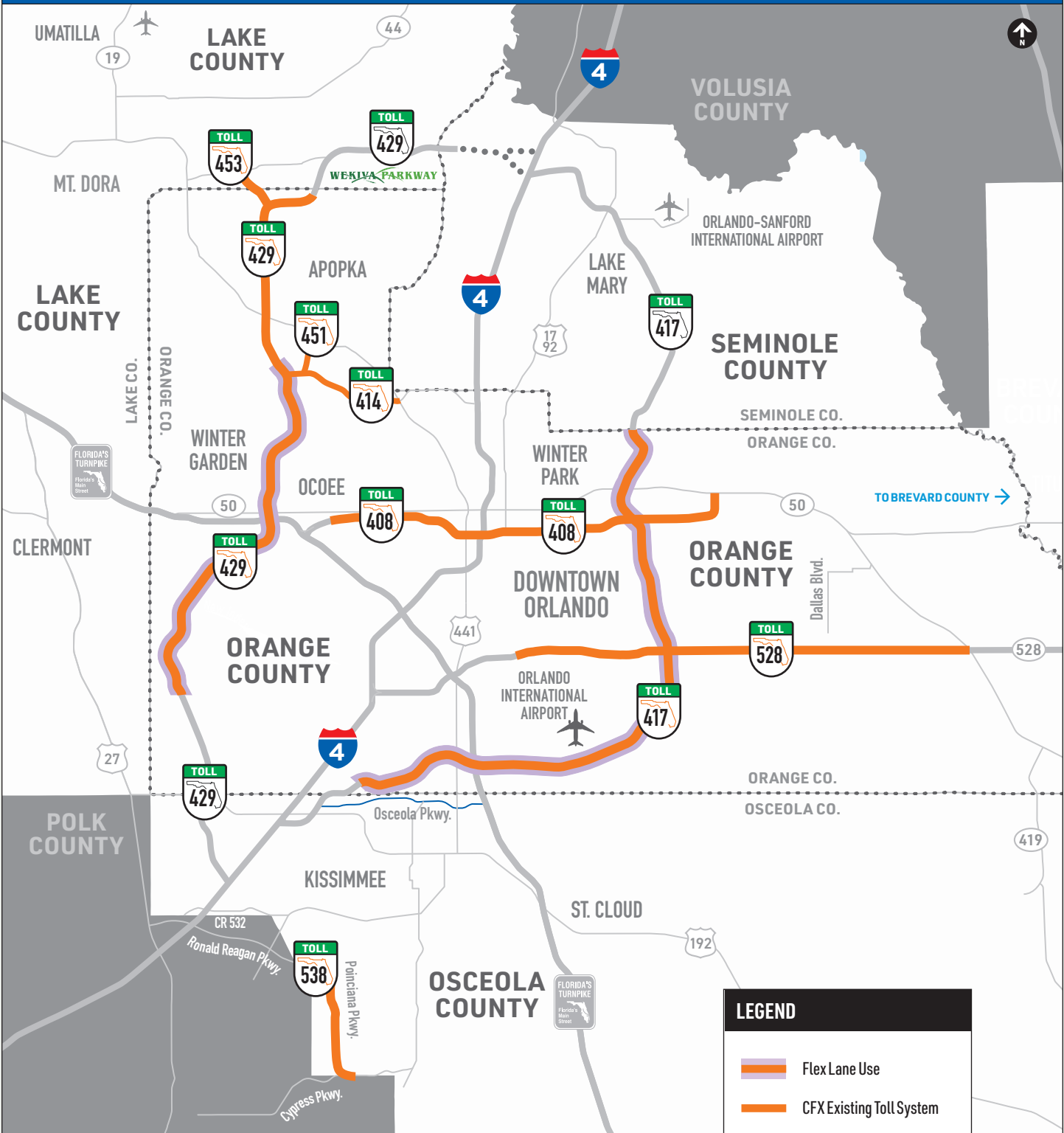
**Integrating** Intelligent Transportation Systems technology, such as dynamic messaging signs or real-time traffic monitoring to optimize traffic flow.

### Strategic Addition of Capacity for Existing Expressways

New to the 2045 Master Plan are Flex Lanes, which utilize existing shoulders on expressways during peak traffic congestion to provide additional lanes. Figure 3.2 illustrates segments on the system identified for proposed Flex Lanes, increasing roadway capacity during heavy congestion and reverting to shoulder use during off-peak hours. This approach optimizes capacity without permanent lane expansions and may include dynamic signage and variable speed limits for traffic management and safety.

Future expressways will include right-of-way with a median width capable of accommodating various transportation modes, such as, rail or bus and allowing for potential future Flex Lane implementation.

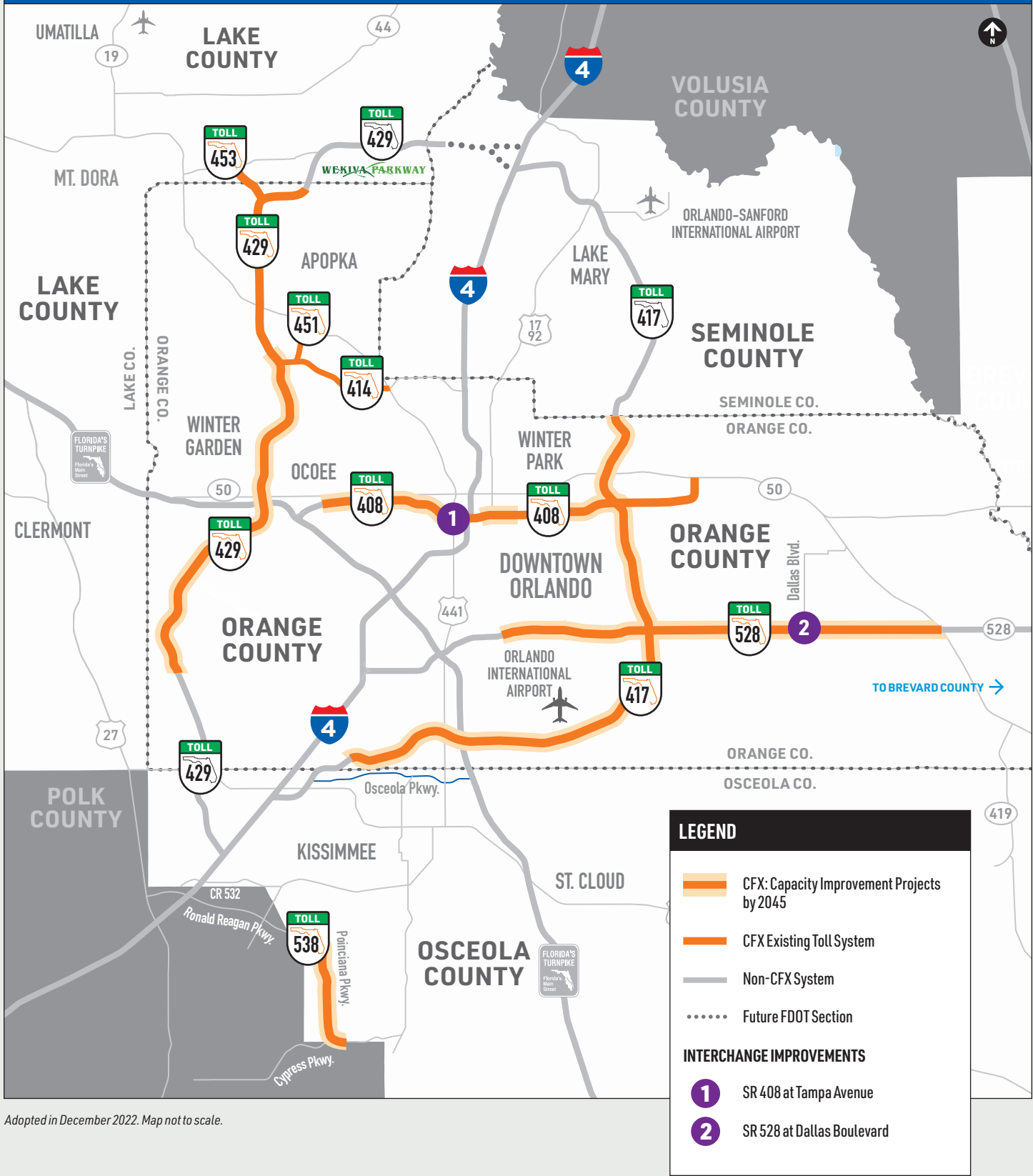
Figure 3.2 | Identified Flex Lane Use



Adopted in December 2022. Map not to scale.

Figure 3.3 | Identified \$2.9B for Existing System Improvement Projects

CENTRAL  
FLORIDA  
EXPRESSWAY  
AUTHORITY  
2045  
MASTER  
PLAN



Adopted in December 2022. Map not to scale.

## System Capacity Needs

To anticipate future capacity needs, we've projected traffic volumes on our 125-mile expressway system until 2045 (Table 3.1). These forecasts consider population growth, economic trends, and operational performance. By assessing the costs and benefits, we'll determine the most effective strategies, whether it's adding physical capacity or implementing managed lanes. Our goal is to ensure smooth traffic flow and sustainable transportation solutions for the coming decades.

Based on traffic forecasts and CFX's commitment to maintaining a Level of Service (LOS) D\* or better, several sections of SR 408, SR 417, SR 429, and SR 528 will require capacity improvements within the next 25 years. According to Table 3.1, all but one location is expected to exceed 100,000 vehicles daily. The Conway Plaza on SR 408 is projected to serve nearly 200,000 vehicles daily by 2045.

**ESTIMATED COST:** CFX anticipates up to 75 lane miles to be needed, at an estimated cost of \$1.2 billion in 2022 dollars (Table 3.2), to ensure traffic operates at an acceptable level of service.

*\*As defined by the USDOT, Level of Service (LOS) is the term used to refer to a collection of measures of automobile congestion and travel time delay. LOS is intended to represent a traveler's perception of the quality of service provided by a roadway segment, as measured by the standard of free-flowing automobile traffic. LOS D is expressed as traffic approaching an unstable flow and drivers having to reduce their speeds, while LOS E is expressed as an unstable flow and short stoppages begin to occur.*

## Interchange Needs

**LOCATION:**  
City of Orlando  
and Orange County






Two interchanges, SR 408 at Tampa Avenue in the City of Orlando and SR 528 at Dallas Boulevard in eastern Orange County, have been identified as requiring improvements within the next 5 years.

Tampa Avenue interchange at SR 408 currently operates as a half interchange, with only an eastbound entrance and a westbound exit, which inadequately serves traffic wanting to enter and exit Tampa Avenue, particularly during events such as concerts, etc. at Camping World stadium. The proposed Tampa Avenue interchange project includes construction of a new Tampa Avenue entrance to eastbound SR 408, a new Tampa Avenue exit from westbound SR 408, as well as capacity and operational improvements to adjoining roadways, to ensure adequate traffic flow.

Dallas Boulevard interchange on SR 528 currently operates as a half interchange, with only a westbound entrance and an eastbound exit. The planned project would convert this to a full interchange by adding a westbound exit and eastbound entrance, which will enhance access and mobility to the growing Wedgfield community and eastern Orange County.

**ESTIMATED COST:** These two interchange improvements have an estimated cost of \$153 million in 2022 dollars (Table 3.2).

Table 3.1 | Daily Traffic (AADT) Forecasts at Mainline Plaza

CFX PLAZA	2022 <sup>(1)</sup>	2025	2030	2035	2040	2045
<div>SR 408</div>						
Hiawassee	82,100	91,500	104,000	116,500	129,000	141,500
Pine Hills	106,700	115,200	127,000	138,700	150,400	162,100
Conway East-West	152,800	161,200	168,600	176,000	183,400	190,800
Dean	68,700	75,100	83,000	90,800	98,600	106,400
<div>SR 414</div>						
Coral Hills	41,700	46,900	55,400	63,800	72,200	80,600
<div>SR 417</div>						
John Young	70,700	80,600	93,000	105,300	117,600	129,900
Boggy Creek	98,100	113,300	125,000	136,600	148,300	159,900
Curry Ford	116,600	127,700	139,800	152,700	165,500	178,400
University	90,200	98,800	108,600	118,400	128,200	138,000
<div>SR 429</div>						
Independence	51,200	57,600	68,700	79,800	90,900	101,900
Forest Lake	63,000	70,900	82,900	94,800	106,800	118,700
<div>SR 528</div>						
Airport <sup>(2)</sup>	105,800	121,300	134,400	147,500	160,600	173,700
Beachline Main	65,900	76,500	86,800	97,100	107,400	117,600
Dallas	54,700	64,000	73,300	82,100	90,900	99,400

(1) 2020 and 2021 omitted due to COVID-19 impacts.

(2) The Airport Plaza was removed in FY 2016. The future traffic forecasts represent the volumes for the corresponding segment of SR 528.

## Renewal & Replacement Program

The Renewal & Replacement (R&R) Program is designed to maintain, rehabilitate, and replace aging infrastructure assets, equipment, and technology to ensure the safety and reliability of the system by meeting the following standards:

- Routine Maintenance:** Maintain an overall Maintenance Rating Program (MRP) of at least 90.
- Resurfacing:** Ensure a minimum of 85% of lane miles are in good condition (rated 7 or above).
- Bridge Repair and Replacement:** Ensure 95% or more of all bridges are in good condition.

As the system ages and expands, it is expected that the amount of funds directed towards the R&R Program will grow to maintain the system to function at optimum capacity and efficiency. By maintaining a proactive approach to infrastructure maintenance, CFX can continue to provide the high-quality service that its customers rely on.

### PAVEMENT

The life cycle for pavement is determined to be around 10 to 12 years based on both historical and projected data. During an annual field inspection, any segments of the CFX system that do not meet the accepted standard or are not in compliance with the recent design standards are identified and addressed.

### SIGNING AND PAVEMENT MARKINGS

The signing and pavement markings aspect of the R&R Program covers guide signs, retro-reflective pavement markers, trailblazers, and fluorescent signs. Replacement cycles for these assets are determined by analyzing a combination of historical data, warranty expiration, reflectivity, and findings of the annual field inspections. The analysis of these factors helps to develop replacement cycles for each asset.

### TOLL PLAZA ASSETS

The replacement cycles for toll plaza assets, such as generators, air conditioners, and roofs are determined by a combination of maintenance logs from the maintenance contractors, certified inspections, and field reviews.

**ESTIMATED COST:** The anticipated cost to fund the R&R program is \$1.5 billion in 2022 dollars (**Table 3.2**). The majority of funds allocated for the R&R program are dedicated to milling and resurfacing projects.

## Facility Needs: All-Electronic Tolling

All Electronic Tolling is more than collecting tolls. It's a stepping stone to repurposing our infrastructure, envisioning toll plazas as future EV charging points or service hubs for tomorrow's travelers.

CFX is considering converting to All-Electronic Tolling (AET), or cashless tolling, across most of its 125-mile system of expressways. Only 4% of toll revenue is from cash and this percentage continues to decline.

All-Electronic Tolling (AET) is a toll collection system that uses transponders like E-PASS or license plate readers (Pay by Plate) to collect tolls without requiring drivers to stop and pay with cash or coins at toll plazas and access ramps. This system allows drivers to pass through tolling points at highway speeds, which can improve traffic flow, enhance safety, and reduce congestion, travel time, and vehicle operating costs. Due to these benefits all of CFX's new expressways planned for construction incorporate AET.

### A PHASED APPROACH

CFX will utilize a phased approach to transition to AET. Starting in 2023, CFX will remove 26-coin machines from the main line toll plazas and continue in 2024 with the elimination of coin machines at 70 ramps accessing expressways. While CFX is phasing out the use of coins, customers can still pay tolls with cash if they have an E-PASS account. There are multiple options for customers to add funds using cash to their E-PASS account, including the walk-in E-PASS Service Center in downtown Orlando, or the drive-thru Reload Lanes at all toll plazas.

The investment is expected to optimize back-office efficiency while improving mobility, safety, and traffic flow.

**ESTIMATED COST:** The conversion to AET has an estimated cost of \$50 million in 2022 dollars (Table 3.2).

Table 3.2 | System Capacity, Preservation and Operational Needs

More than \$2.9 billion of identified project needs anticipated through the 2045 Master Plan horizon year.

SYSTEM ELEMENT		IMPROVEMENT	COST ESTIMATE (MILLIONS)	
SR 408		SR 50 to Pine Hills Road	Capacity: Widen to 8 Lanes	\$134.0
		Pine Hills Road to Tampa Avenue (Westbound)	Capacity: Widen to 4 Lanes	\$30.0
		SR 436 to Goldenrod Road (Eastbound)	Capacity: Widen to 6 Lanes	\$40.0
		SR 417 to Dean Road	Capacity: Widen to 8 Lanes	\$44.0
SR 417		SR 528 to Curry Ford Road	Capacity: Widen to 8 Lanes	\$134.0
		North of SR 408 to Orange/Seminole County Lines	Capacity: Widen to 8 Lanes	\$171.0
SR 429		Seidel Road to Schofield Road	Capacity: Widen to 6 Lanes	\$90.0
		Schofield Road to New Independence Parkway	Capacity: Widen to 6 Lanes	\$50.5
		New Independence Parkway to Tilden Road	Capacity: Widen to 6 Lanes	\$63.5
SR 528		Boggy Creek Road to Tradeport Drive (Eastbound)	Capacity: Widen to 4 Lanes	\$14.0
		Innovation Way to SR 520	Capacity: Widen to 6 Lanes	\$464.0
CAPACITY IMPROVEMENTS			\$1,235.0	
SR 408		SR 408 at Tampa Avenue	Interchange Improvement	\$76.8
SR 528		SR 528 at Dallas Boulevard	Interchange Improvement	\$76.4
INTERCHANGE IMPROVEMENTS			\$153.2	
SYSTEMWIDE	Systemwide Toll to AET Project		ALL ELECTRONIC TOLLING	\$50.0
SYSTEMWIDE	Systemwide R&R Requirements		RENEWAL & REPLACEMENT PROGRAM	\$1,500.0
IDENTIFIED SYSTEM NEEDS			\$2,938.2	

Cost Estimate Base Year: 2022

## **Section 4**

# **Recommendations: Exploring Future Services**

In this section, you'll find how we plan to stay ahead of the curve by identifying trends and recommending opportunities and technological advancements aimed to deliver a more efficient, safe, and accessible travel experience for a region on the move.

**2** | For Tomorrow's Roads

**3** | Intelligent Transportation System (ITS)

**4** | ITS Initiative Summary

**5** | Sustainability Initiatives

**6** | Multimodal and Intermodal Partnerships

**6** | Advertising Initiatives: A New Avenue for Growth



# For Tomorrow's Roads

**The 2045 Master Plan is our blueprint for future generations. Our aim is simple – anticipate the future and act now.**

To navigate the changing landscape of our industry, we conducted three workshops with the CFX Governing Board, focusing on the 'Future of Roads.' These discussions were pivotal in challenging existing paradigms. They underscored the importance of collaboration and fostering partnerships with entities outside of our traditional network, such as vehicle manufacturers, third-party payment operators, air taxis, digital infrastructure providers, and more.

**THE WORKSHOPS ALLOWED US TO CONSIDER:**

- The industry transition towards Automated, Connected, Electric, and Shared Mobility (ACES).
- Advancements in connected infrastructure and system interoperability.
- Recent developments in All Electronic Tolling (AET).
- An array of emerging technologies that complement or test our existing systems.

As we pave the way for tomorrow, our feet remain firmly planted in today's realities, ensuring every solution recommended is in full alignment with our legislative responsibilities, Master Bond Resolutions, and established policies.

## Intelligent Transportation System (ITS)

CFX is a significant contributor to Central Florida's robust economy through the critical infrastructure it provides today. With technological innovations such as automated, electric, and connected vehicles growing at a rapid rate, CFX is poised to develop and deliver mobility solutions to meet the future needs of residents, businesses and visitors traveling throughout Central Florida.

In 2022, CFX adopted its ITS Master Plan, updated every three to five years. Integrating Transportation System Management and Operations (TSM&O), including Intelligent Transportation Systems (ITS), provides CFX a performance-driven approach for solving traffic related problems. CFX's ITS Master Plan recommendations to improve travel time reliability, safety at interchanges, and event management response are incorporated into future planning and design of the CFX expressway system. These strategies touch on all facets of a transportation system and, when implemented in concert, will further the flow of goods, safety of travelers, and keep the public informed.

### ITS Master Plan Goals

- 1 Effectively manage a **safe, secure and efficient transportation system** for all users.
- 2 Provide **service excellence** with a resilient and quality infrastructure.
- 3 Invest in **innovative solutions** to support commerce, equity, quality of life and safety.
- 4 Provide a **connected and reliable system** for people and freights through regional collaboration.
- 5 Proactively take measures to **sustain our environment**.

## ITS Initiatives Summary

Below is a summary of the Intelligent Transportation System (ITS) initiatives identified for the 2045 Master Plan. To explore CFX’s ITS Master Plan recommendations, please visit the following [link](#).

### TRIP MANAGEMENT

Our journey into the future begins with in-vehicle traveler information services. Envision a society where precise route information is readily available to all – from daily commuters to visiting tourists, enabling them to navigate our streets with unparalleled ease. Imagine truck operators receiving real-time data, optimizing their routes and schedules to avoid congestion. This isn’t just an idea. It’s a commitment we’re actively pursuing with partners at all levels to deliver real-time data that makes travel smoother and our streets less congested. As we plan for the next quarter-century, you can expect to see travel information services evolve into an intuitive tool for efficient trip management.

### VEHICLE-TO-EVERYTHING (V2X) COMMUNICATION

CFX will continue to explore Vehicle-to-Everything (V2X) Communication advancements to enhance road safety and traffic management. V2X encompasses both Vehicle-to-Vehicle (V2V) and Vehicle-to-Infrastructure (V2I) technologies, allowing for a seamless exchange of safety and traffic information. This integrated communication is crucial for improving situational awareness and reducing response times, which is especially beneficial for safeguarding vulnerable road users, including the elderly.

We’ve already seen promising results with the deployment of Wrong Way Driving Detection and Prevention Systems, which utilize thermal cameras to alert drivers of potential hazards. Moving forward, we anticipate future investments in V2X technology will play an important role in delivering real-time alerts to drivers, prompting necessary corrective actions to prevent crashes and ultimately enhance overall road safety. CFX will continue designing infrastructure to support these technologies.

### FUTURE TOLL PAYMENT TECHNOLOGIES

Picture this: Future vehicles approach a toll point and its embedded technology will effortlessly transmit customer identification, vehicle classification, and all the standard data required for electronic toll collection. Virtually everything needed for efficient use-based revenue collection will be readily available, rendering transponders and license plate-based tolling obsolete.

### AUTOMATED, CONNECTED, ELECTRIC, AND SHARED MOBILITY (ACES)

The ACES (Automated, Connected, Electric, and Shared Mobility) approach aims to reduce traffic crashes and optimize expressway use through smarter vehicle coordination. CFX is committed to advancing this future by testing new technologies, integrating advanced tolling communications, and upgrading infrastructure to support these innovative vehicles. By working together with partners across the industry, we plan to build a safer and more efficient mobility network to connect communities with our region over the next 25 years.

### ELECTRIC VEHICLES & ELECTRIFICATION OF INFRASTRUCTURE

CFX recommends exploring advanced technologies such as inductive charging for electric vehicles to minimize stops for recharging. In alignment with this vision, we’re collaborating with Advancing Sustainability through Powered Infrastructure for Roadway Electrification (ASPIRE) center at Utah State University to pilot a smart-powered roadway segment on the future SR 516 Expressway. This test aims to charge EVs in motion and gather data to guide the potential broader adoption of such technology. Our commitment is to evolve our roadways over the next 25 years to support the seamless transition to electric mobility.

## Sustainability Initiatives

In 2019, CFX approved a Sustainability Study that formed the roadmap for advancing and integrating sustainable strategies into its projects, plans and facilities aimed to reduce consumption of traditional energy sources, facilitate carbon emission reductions and ultimately build more resilient infrastructure in the region.

As we look ahead, CFX is shaping the future of smart, resilient infrastructure. Here are several identified initiatives:

**Solar Energy Projects:** We will continue exploring various solar power opportunities – from traditional ground-mounted farms to innovative floating arrays on retention ponds and even integrating them into our infrastructure like rooftops and sound barriers. These efforts are aimed at directly reducing our energy footprint.

**PV Street Lighting:** Small-scale, pole-mounted solar solutions will continue being assessed to illuminate our roads more sustainably.

**Pavement Energy:** We will continue studying the ability to integrate solar technology into the very pavement of our roadways for a dual-purpose solution that harnesses energy while supporting traffic.

**EV Charging Expansion:** To accommodate the growing use of electric vehicles, we will expand charging stations for CFX staff and the public.

**Green Landscaping:** We’re committed to eco-friendly landscaping along our expressways, prioritizing native plants and smart design to foster sustainability. For a comprehensive look at our sustainable strategies and their anticipated impact, please visit [cfxway.com](#) to access the [CFX Sustainability Study](#).

### CONSERVATION INITIATIVES

CFX will continue prioritizing the protection of wildlife throughout the design, planning and construction of projects. Furthering this commitment, in May 2022, the CFX Governing Board unanimously passed a resolution to increase the protection of conservation lands within the Central Florida region. The resolution includes a list of environmental enhancements including \$13 million for restoration and maintenance of over 1,550 acres of donated land in Orange and Osceola counties in the foreseeable future.

SR 408 Hiawassee Plaza  
Solar Field



## Multimodal and Intermodal Partnerships

Established in 2014, CFX has an expanded jurisdiction and a broadened mandate to incorporate multimodal corridors and intermodal facilities within its rights-of-way. In alignment with this, the CFX Board has adopted a policy that allows CFX to engage in multimodal and intermodal opportunities as a financier and/or regional partner, but not as the owner or operator of multimodal or intermodal systems or facilities.

CFX includes multimodal planning in all its projects, whether as a strategy for congestion relief, to connect a trail network, or to design a future expressway corridor. As part of the 2045 Master Plan, we are committed to continuing our exploration of multimodal and intermodal initiatives with our regional partners. These initiatives include:

**SR 408 Downtown Orlando Corridor:** This corridor will feature bus rapid transit services with express buses to enhance connectivity between the University of Central Florida (UCF) main campus and the downtown campus.

**Intermodal Connection Hubs:** We will continue studies on repurposing existing toll plaza assets, transforming them into park-and-ride facilities, transit hubs, electric vehicle (EV) charging stations, or drive-up Reload Customer Service Lanes.

**Right-of-Way Multimodal Opportunities:** In collaboration with transportation partners such as Brightline, a high-speed rail operator, and SunRail, a regional commuter rail operator, we will explore multimodal opportunities within our existing expressway corridors.

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## Advertising Initiatives: A New Avenue for Growth

We set our sights on a unique opportunity—billboard advertising on our expressway system. This initiative, often referred to as outdoor advertising partnerships, involves collaborating with billboard companies to install strategically placed billboards along our expressways. These billboards serve as more than just advertising spaces; they represent a gateway to additional revenues that can be reinvested in existing infrastructure and future services.

## **Section 5**

# **Our Expressway System**

**2 | Overview of the Central Florida Expressway System**

**3 | Existing System Map**

**4 | Regional Traffic Demand on the System**

**4 | Annual Average Daily Traffic (AADT)**

**5 | AADT Traffic Volume Map**

**6 | CFX Expressway System**

**12 | Overview of the Expressway Facilities**









# Overview of the Central Florida Expressway (CFX) System

Today, the CFX system includes 125 centerline miles and 870 lane miles (including ramps) of limited-access expressways. In addition to the system expressways, we also operate and maintain the Goldenrod Road Extension, which is a non-system, two-mile tolled expressway. The system is represented on [Figure 5.1](#).

## Overview of Our Expressway System

125  
Centerline Miles

870  
Lane Miles

 Centerline Miles 22 Lane Miles 219	 Centerline Miles 31 Lane Miles 178	 Centerline Miles 23 Lane Miles 143
 Centerline Miles 6 Lane Miles 58	 Centerline Miles 2 Lane Miles 8	 Centerline Miles 7 Lane Miles 16
 Centerline Miles 32 Lane Miles 237	 Centerline Miles 2 Lane Miles 11	<b>Goldenrod Road Extension</b> Centerline Miles 2 Lane Miles 10

73  
Interchanges

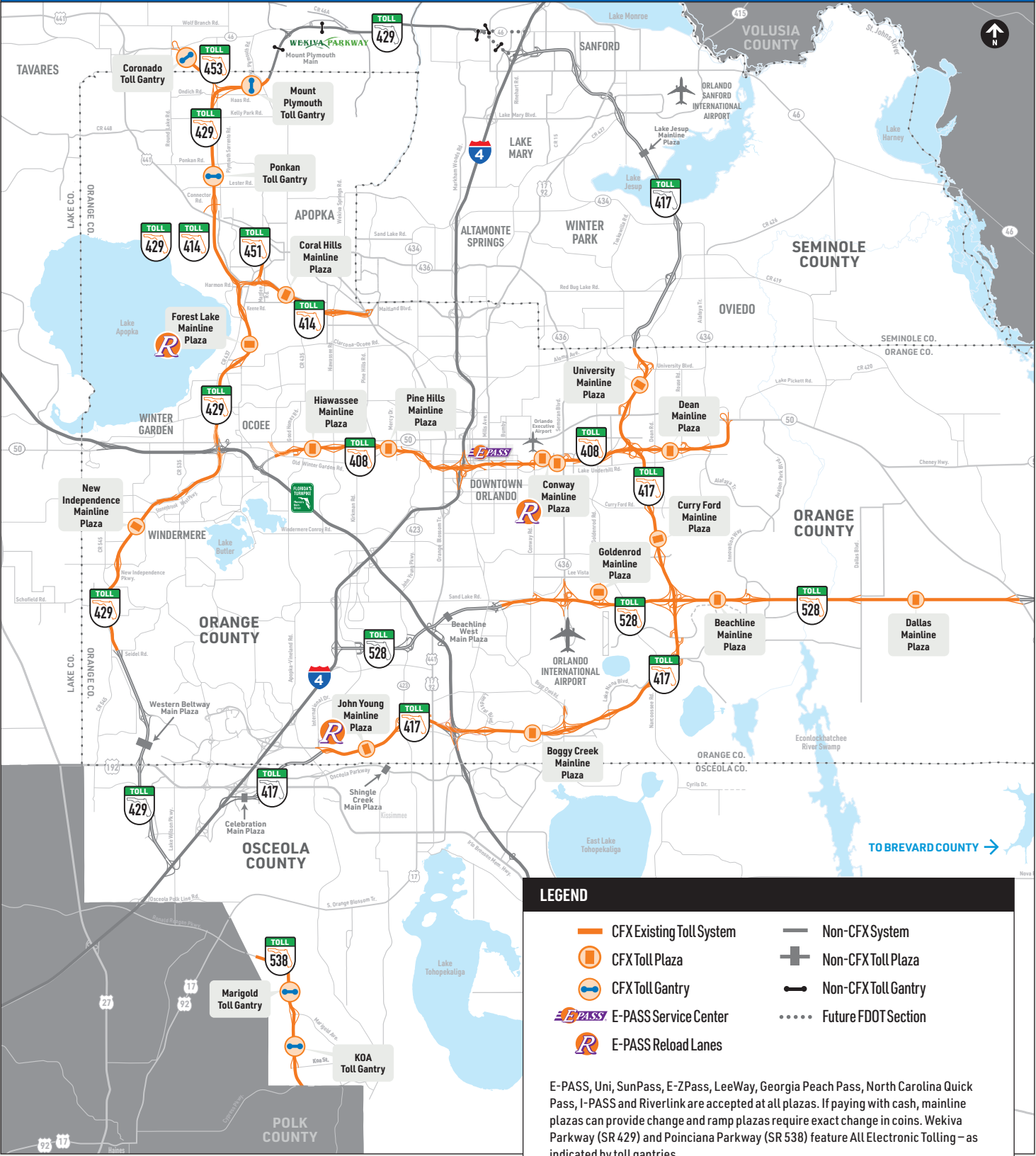
14  
Mainline Toll Plazas

5  
Mainline Toll Gantries

74  
Ramp Toll Plazas

The locations of our 19 mainline toll facilities and the average annual daily traffic volumes recorded at each in 2022 are listed in [Table 5.1](#).

Figure 5.1 | Existing System



As of December 2022. Map not to scale.

Regional Traffic Demand on the System

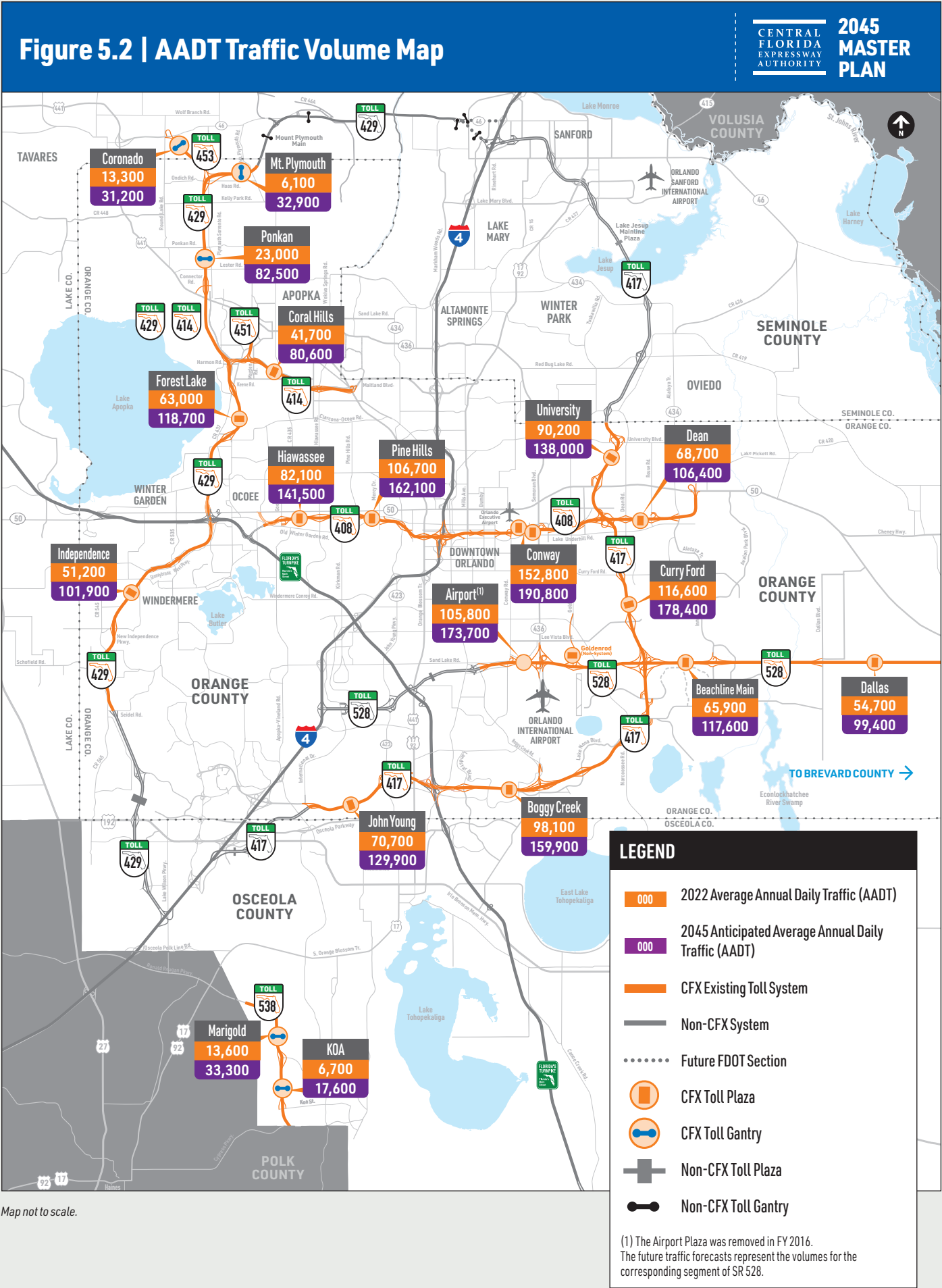
Today, on average, more than 1.5 million toll transactions are recorded daily and over 85% occur electronically. Traffic forecasts at the mainline toll plaza locations through the year 2045 are summarized in Table 5.1 and shown on Figure 5.2.

In 2022, daily vehicles exceed 100,000 at four toll facilities. By 2045, 12 of the 19 toll facilities are projected to exceed 100,000 vehicles per day, with some expected to exceed 150,000 daily vehicles.

Table 5.1 | Annual Average Daily Traffic (AADT)

	SR 408	2022	2025	2030	2035	2040	2045
	Hiwassee	82,100	91,500	104,000	116,500	129,000	141,500
	Pine Hills	106,700	115,200	127,000	138,700	150,400	162,100
	Conway East-West	152,800	161,200	168,600	176,000	183,400	190,800
	Dean	68,700	75,100	83,000	90,800	98,600	106,400
	SR 414						
	Coral Hills	41,700	46,900	55,400	63,800	72,200	80,600
	SR 417						
	John Young	70,700	80,600	93,000	105,300	117,600	129,900
	Boggy Creek	98,100	113,300	125,000	136,600	148,300	159,900
	Curry Ford	116,600	127,700	139,800	152,700	165,500	178,400
	University	90,200	98,800	108,602	118,400	128,200	138,000
	SR 429						
	Independence	51,200	57,600	68,700	79,800	90,900	101,900
	Forest Lake	63,000	70,900	82,900	94,800	106,800	118,700
	Ponkan	23,000	32,300	44,800	57,300	69,900	82,500
	Mount Plymouth	6,100	10,500	18,000	25,500	29,200	32,900
	SR 453						
	Coronado	13,300	16,700	21,300	25,900	28,600	31,200
	SR 528						
	Airport¹	105,800	121,300	134,400	147,500	160,600	173,700
	Beachline Main	65,900	76,500	86,800	97,100	107,400	117,600
	Dallas	54,700	64,000	73,300	82,100	90,900	99,400
	SR 538						
	KOA	6,700	8,500	11,000	13,400	15,500	17,600
	Marigold	13,600	16,700	20,900	25,000	29,200	33,300

Note: (1) The Airport Plaza was removed in FY 2016. The future traffic forecasts represent the volumes for the corresponding segment of SR 528.





SR 408

**Name:** Spessard L. Holland East-West Expressway  
**Miles:** 22  
**Website:** [CFXway.com](https://www.cfxway.com)

SR 408 was constructed to provide an east-west connection across the Orlando area and fast and efficient access to the Orlando central business district. Today, the 22-mile limited access expressway is the backbone of the Central Florida Expressway Authority’s 125-mile network. It remains a vital transportation artery in Orlando, connecting major highways, communities, and business districts, and facilitating the movement of people and goods across the city.

SR 408 connects Florida’s Turnpike in west Orange County to SR 50 (Colonial Drive) east of Alafaya Trail near the University of Central Florida in east Orange County. At its peak, more than 164,000 vehicles a day travel SR 408 as it crosses downtown Orlando. CFX owns and operates all but SR 408’s westernmost mile, which is operated by Florida’s Turnpike Enterprise, part of the Florida Department of Transportation.

Several projects have widened segments of SR 408 and updated mainline and ramp toll plazas since their openings. SR 408 features several roadway configurations. SR 408 is six lanes from I-4 to Florida’s Turnpike (with the exception of approximately 1.5 miles in the westbound direction from I-4 to John Young Parkway consisting of four limited-access expressway lanes). It is also six lanes from SR 417 to Alafaya Trail, with four lanes from Alafaya Trail to SR 408’s eastern terminus. From SR 417 to I-4, SR 408 is eight or more lanes on the segments through the core of downtown Orlando.

As of Fall 2022, SR 408 is being widened from four to six lanes in the eastbound direction from approximately John Young Parkway to Orange Blossom Trail. Two planning studies are underway for additional widenings of three segments: Kirkman Road to Church Street; westbound from Goldenrod Road to SR 436 (Semoran Boulevard); and westbound from Bumby Avenue to I-4. Construction funding for these projects is committed in the adopted FY 2023-2027 Five Year Work Plan.

**For more information**, please visit the SR 408 expressway page.



SR 414

**Name:** John Land Apopka Expressway  
**Miles:** 6  
**Website:** [CFXway.com](https://www.cfxway.com)

SR 414 (John Land Apopka Expressway) opened on May 15, 2009 and extends south and east from U.S. Highway 441 in Apopka to Maitland Boulevard. Of the nine miles, three are part of a dual route SR 429 (Daniel Webster Western Beltway).

SR 414 improves access to SR 429 (Daniel Webster Western Beltway), I-4, and employment hubs such as Maitland Center while relieving congestion on US 441 and many local roads in the greater Apopka area.

In June 2022, a Project Development & Environment Study was completed that evaluated alternatives for a proposed elevated expressway extension of the tolled SR 414 within the median of the existing SR 414 (Maitland Boulevard) from US 441 (Orange Blossom Trail) to SR 434 (Forest City Road), in Orange and Seminole counties. The proposed 2.8-mile project will provide a direct expressway connection between the eastern end of SR 414 and I-4.

**For more information**, please visit the SR 414 expressway page.



SR 417

**Name:** Central Florida GreeneWay  
**Miles:** 32  
**Website:** [CFXway.com](https://www.cfxway.com)

SR 417 extends 55 miles from an interchange with I-4 south of US 192 in Osceola County to an interchange with I-4 in Seminole County, forming an eastern beltway around the heavily developed core of Central Florida. CFX owns and operates the central 33-mile portion of SR 417, beginning at the interchange ramps with SR 535 near International Drive and ending at the Orange / Seminole line. Florida’s Turnpike Enterprise (FTE) owns and operates segments of the SR 417 north and south of CFX segments.

SR 417 was the first expressway in the CFX system to replace all mainline toll plazas with open road tolling gantries, allowing customers to pay tolls while traveling nonstop at the posted highway speed with electronic toll transponders or by Pay By Plate.

As of December 2022, there are four projects under construction to widen approximately 21 miles of SR 417 from International Drive to SR 528 (Martin B. Anderson Beachline Expressway). An additional 1.5 miles of widening, from Curry Ford Road to Lake Underhill Road, will be in the planning phase in 2023.

**For more information**, please visit the SR 417 expressway page.



SR 429

**Name:** Daniel Webster Western Beltway  
**Miles:** 31  
**Website:** [CFXway.com](https://www.cfxway.com)

SR 429, together as the Daniel Webster Western Beltway and Wekiva Parkway (detailed below), extends nearly 54 miles from I-4 in Osceola County to I-4 in Seminole County, providing west Orange and Osceola counties with an alternate north-south route to heavily traveled I-4 as well as greatly enhancing access to Florida’s Turnpike.

CFX owns and operates the 31 miles of SR 429 from Seidel Road in Orange County to just south of the Orange/Lake County line, while Florida’s Turnpike Enterprise owns and operates the 10 miles from Seidel Road south to I-4.

There are currently projects under construction to widen approximately 14 miles of SR 429 from Tilden Road to SR 414. An additional approximately 4.2 miles of widening, from Schofield Road to Tilden Road, will begin the design phase in 2024.

For more information, please visit the SR 429 expressway page.



SR 429

**Name:** Wekiva Parkway  
**Miles:** 9.5  
**Website:** [CFXway.com](https://www.cfxway.com)

An extension of SR 429 (Daniel Webster Western Beltway), the Wekiva Parkway represents the final link in the Central Florida Beltway encircling Metro Orlando. The all-electronic tolled expressway provides travel alternatives to congested area roads and relieves US 441 and SR 46.

Authorized in 2004 by the Wekiva Parkway and Protection act, the expressway is a joint project between CFX and the Florida Department of Transportation. It was designed as a scenic passageway through rolling countryside and the environmentally sensitive Wekiva River Basin area ultimately linking to SR 417 (Central Florida GreeneWay) and I-4 in northwest Seminole County. The expressway includes elevated sections and habitat corridors that separate wildlife from vehicle traffic and features an expansive crossing over the picturesque Wekiva River.

CFX built approximately 10 miles of the parkway in two phases: a 4.5-mile portion that connects with the SR 429/US 441 interchange and runs north to just past Kelly Park Road and a 5-mile northeast extension from Kelly Park Road to Mount Plymouth Road (County Road 435). The final segment connecting to I-4 and SR 417 in northwest Seminole County is to be completed by FDOT in late 2023.

For more information, please visit the SR 429 Wekiva Parkway expressway page.



SR 451

**Miles:** 2  
**Website:** [CFXway.com](https://www.cfxway.com)

Originally part of SR 429 (Daniel Webster Western Beltway), SR 451 connects SR 414 (John Land Apopka Expressway) and SR 429 north to US 441 (SR 500/ Orange Blossom Trail).

The connection streamlines the commute between northwest Seminole County and northeast Orange County.

For more information, please visit the SR 451 expressway page.



SR 453

**Miles:** 2  
**Website:** [CFXway.com](https://www.cfxway.com)

SR 453 is a tolled spur road connecting SR 429 (Wekiva Parkway) with SR 46 (Sorrento Avenue) near Mount Dora in Lake County.

CFX built the “Mount Dora Connector,” as SR 453 is casually called, as part of its overall contribution to the Wekiva Parkway project. SR 453 connects with the Parkway’s interchange at Haas Road/Ondich Road and Plymouth Sorrento Road (County Road 437).

For more information, please visit the SR 453 expressway page.



SR 528

**Name:** Martin B. Anderson Beachline Expressway  
**Miles:** 23  
**Website:** [CFXway.com](https://www.cfxway.com)

SR 528 (Martin B. Anderson Beachline Expressway) is a 41-mile expressway providing a crucial connection for residents and visitors traveling to the Orlando International Airport, the east coast beaches, and Cape Canaveral. It extends east from I-4 in the International Drive tourism area across SR 417 (Central Florida GreeneWay) and I-95, ending at US 1 in Cocoa.

The Beachline is owned and operated by two agencies: CFX operates the 23 miles that extend from just east of SR 482 (McCoy Road) to SR 520; Florida’s Turnpike Enterprise operates the westernmost eight miles to I-4; as well as the nine miles east of SR 520 to the Bennett Causeway at US 1.

There are currently projects under design and/or construction to widen approximately 12 miles of SR 528 from SR 436 (Semoran Boulevard) to Innovation Way.

For more information, please visit the SR 528 expressway page.



SR 538

**Name:** Poinciana Parkway  
**Miles:** 7  
**Website:** [CFXway.com](https://www.cfxway.com)

**SR 538 (Poinciana Parkway) is a key transportation corridor serving the residents of Poinciana in Osceola and Polk Counties, identified as one of Florida’s fastest-growing areas. SR 538 extends from Ronald Reagan Parkway and US 17/92 through Osceola County connecting to Cypress Parkway in Polk County. SR 538 provides a critical north-south connection to US 17/92, facilitating access to regional transportation networks, theme parks, and the metro Orlando area.**

Originally built by the Osceola County Expressway Authority (OCX), SR 538 opened to traffic in 2016 and features all-electronic tolling for enhanced traffic flow and customer convenience. Effective December 31, 2018, CFX assumed all governance, control, and maintenance of the Poinciana Parkway.

There is currently a design-build project to widen approximately seven miles of SR 528 from Ronald Reagan Parkway to Cypress Parkway that is anticipated to be completed in 2024.

The Poinciana Parkway Extension, an approximately 2.5-mile northwest extension of Poinciana Parkway to Osceola Polk Line Road (CR 532) is anticipated to be completed in 2026.

**For more information,** please visit the SR 538 expressway page.



SR 551

**Name:** Goldenrod Road Extension  
**Miles:** 2  
**Website:** [CFXway.com](https://www.cfxway.com)

**SR 551 (Goldenrod Road Extension), extends from Goldenrod Road at Narcoossee Road south to Cargo Road. The extension connects Goldenrod Road to SR 528 (Martin B. Andersen Beachline Expressway), east of the Orlando International Airport.**

The extension is a joint project between CFX, the Greater Orlando Aviation Authority, the City of Orlando, and Orange County, with CFX serving as the lead agency on the project. Each partner contributed funds to this project that are being repaid through toll revenues generated solely by the Goldenrod Road Extension.

After all operational expenses are met and the partners are reimbursed for their contributions, the toll plaza will be removed, and the roadway will be transferred to the City of Orlando. The city will be responsible for all future maintenance costs. CFX will retain ownership of the interchange to SR 528 and certain portions of the right-of-way. Due to this agreement, Goldenrod Road Extension is considered a non-system project, and tolls collected from other CFX expressways do not fund any aspect of this extension, or vice versa.

**For more information,** please visit the SR 551 expressway page.



State Road 417

## Overview of the Expressway Facilities

### TOLL PLAZAS AND RAMPS

CFX operates and maintains 14 mainline toll plazas that handle both cash and electronic collection, 5 All Electronic Tolling (AET) Mainline Plazas and 74 ramp facilities that include three ramp gantries.

Customers have options to pay using Pay By Plate or cash using the conventional toll collection lanes – or they can choose to participate in the electronic toll collection (ETC) system known as E-PASS. E-PASS allows customers to pass through the tolling point at a safe speed without stopping. The toll is deducted from a prepaid account created by the customer, which is linked to the E-PASS transponder.

E-PASS transponders are interoperable with all other ETC programs within Florida such as SunPass, as well as with the North Carolina Turnpike (Quick Pass) and the Georgia State Road Tollway Authority (Peach Pass) systems. In 2017, CFX entered into an interoperable agreement with E-ZPass group, the largest group of toll road operators in the United States operating from Maine to North Carolina and west through Illinois. CFX introduced a portable transponder, called Uni, a multi-protocol transponder that works in 19 states with all the benefits of E-PASS.

### RELOAD LANES

Reload Lanes are drive-up customer service lanes located at CFX toll plazas that make adding funds, or opening, E-PASS accounts more convenient and efficient. As of December 2022, CFX had repurposed its assets by converting 13 manual toll lanes into drive-up service Reload Lanes.

### EVACUATION ROUTES

Evacuation routes are critical in the event of an emergency, and especially in times of extreme weather. Every summer there are dozens of named tropical storms and hurricanes that form along the Gulf of Mexico and Atlantic Ocean that can impact our region. This makes it even more critical that the need for efficient evacuation operations is properly set forth when a major weather event takes place in the Central Florida region. Currently, SR 528 and SR 408 serve as CFX’s primary evacuation routes. CFX also shares evacuation routes with Brevard, Lake, Orange and Osceola counties.

### INTELLIGENT TRANSPORTATION SYSTEMS

CFX has deployed Intelligent Transportation Systems (ITS) infrastructure spanning a majority of CFX’s five-county jurisdiction. CFX maintains and operates the following ITS deployments.

**FIBER OPTIC NETWORK (FON)**  
Approximately 500 miles of fiber optic communication lines within CFX right-of-way.

**72** Single Mode FOC (Backbone and Feeder Fiber)

**277** Closed Circuit Television (CCTV) cameras

**55** Walk-in and **78** front access Dynamic Message Signs (DMS)

**188** Data Collection Sensors (DCS)

**63** Wrong Way Driving Detection Devices (WWD)

**447** Traffic Management Systems (TMS)

### Fiber Optic Network

We maintain a fiber optic network (FON) of more than 500 miles. The FON serves the immediate and long-term telecommunications needs for data, voice, video transmission and future intelligent transportation system (ITS) applications. The network is installed on both sides of our right of way in a route-redundant configuration and provides linked telecommunication services between the headquarters, mainline toll plazas and ramp toll plazas.

### Closed Circuit Television (CCTV) Cameras

There are 277 closed circuit television (CCTV) cameras covering the system. The camera feeds are viewed by team members to identify and assist in the management of traffic incidents. Moreover, we have partnerships with local media stations and websites to air videos during TV news broadcasts. The CFX design approach provides complete roadway coverage and visual verification for all CFX-owned Dynamic Message Signs. As the roadway system expands, additional CCTV cameras will be installed.

### Dynamic Message Signs (DMS)

CFX currently operates 55 Walk-in DMS and 78 front access DMS. There are four front access DMS Signs installed per toll plaza, two in each direction.

### Data Collection Sensors (DCS)

CFX system includes 188 DCS sensors and the majority deployed utilize automatic vehicle identification (AVI) detectors which reads the toll tags transponders within the motorist vehicles. Other technologies like Bluetooth, WiFi, and Tire Pressure Monitoring Sensors are being deployed for travel time generation.

These sensors are complemented by a data server and software system that provide accurate, reliable, and meaningful traveler information. The data server posts travel times to our 55 DMS locations and feeds FDOT’s 511 traveler information service. Future DCS locations will align with the CFX roadway system expansion.

### Traffic Management Stations (TMS)

The CFX system comprises about 447 TMS sensors and offer real-time and archived data on speeds and volumes at CFX mainlines and ramps.

### ELECTRIC VEHICLE CHARGING

CFX has not only installed five electric vehicle (EV) charging stations on the system, but it is also piloting charging technology that is built directly into the roadway on the future SR 516. This technology will charge EVs traveling at highway speeds.

### RENEWABLE ENERGY INFRASTRUCTURE

In Spring 2022, CFX completed a solar array of 1,800 panels at the SR 408 Hiawassee toll plaza that powers both the plaza and its data center during daylight hours. CFX is planning on replicating this significant achievement at an additional plaza every year.

A 24-panel floating photovoltaic microgrid was completed on SR 429. Connected to storage batteries, this microsystem powers its adjacent emergency dynamic messaging sign 24 hours a day. CFX is now installing a second floating photovoltaic at the Coral Hills Mainline Toll Plaza in Apopka, which should be complete in the fall of 2023. Both solar panel systems sustained minimal damage from 2022 hurricane activity, and the floating microgrid was able to continuously provide power throughout each storm.

### LED LIGHTING

Approximately 89 of the 125 miles of the CFX system has LED lighting installed. CFX headquarters and the entire system will utilize LED lighting by 2027.

## Section 6

# Our Diverse Region

**2** | CFX's Five-County Jurisdiction

**3** | The Central Florida Landscape

**4** | Our Population

**14** | Our Economy

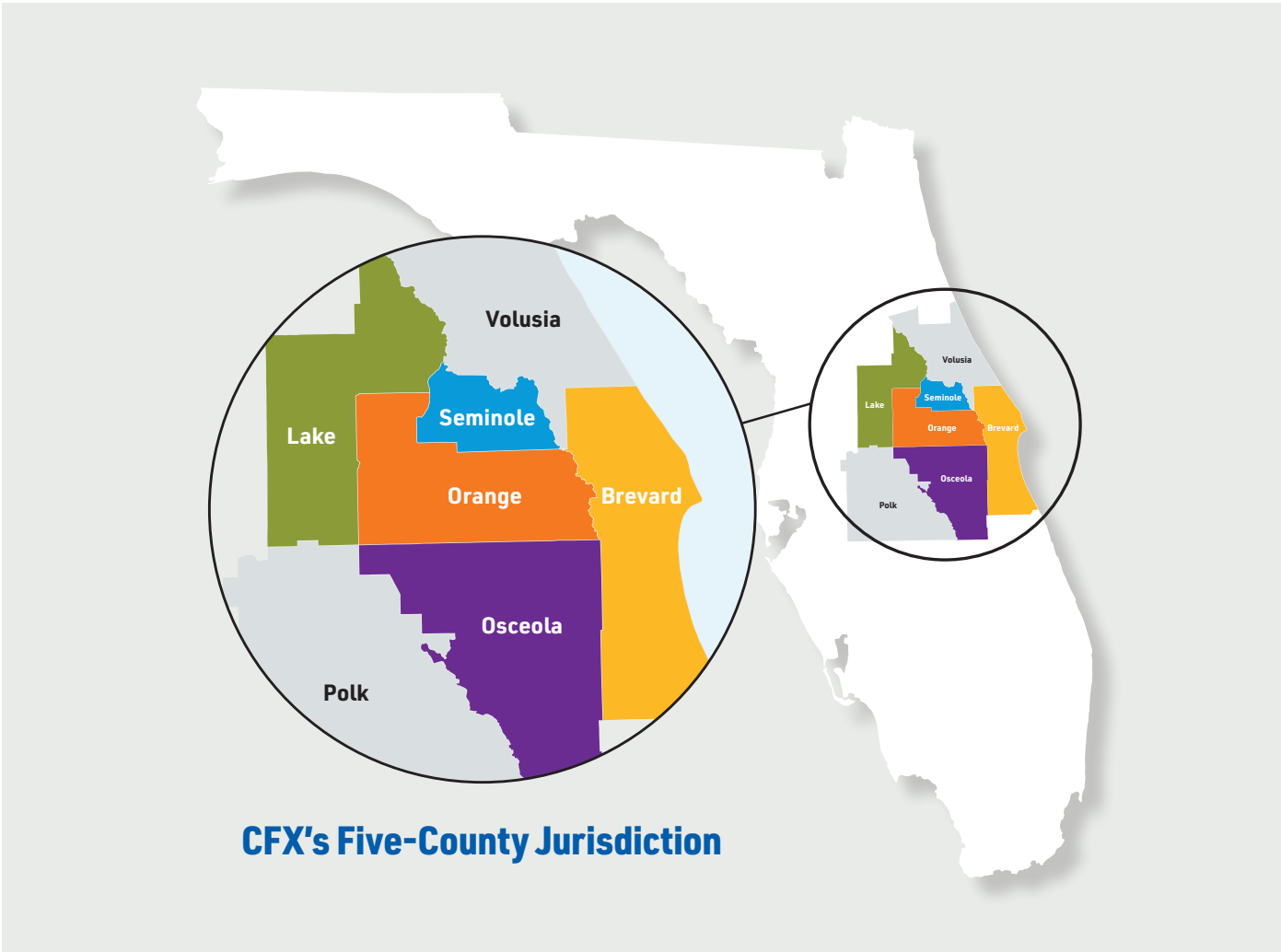
**22** | Our Travel Patterns

# Central Florida: One of the Nation’s Fastest Growing Regions

The five-county Central Florida region that comprises our jurisdiction (Brevard, Lake, Orange, Osceola and Seminole) is home to more than 3.3 million residents, or approximately 14.5% of the state’s total population. It has a dynamic mixture of terrain and land uses, and hosts a variety of attractions, employers and transportation facilities.

With unique qualities, locations and attractions, the region has grown faster than statewide averages in population, employment and tourism. Economists predict Central Florida will continue to be one of the fastest-growing regions in the United States through the 2045 Master Plan horizon year.

In this section, we identify the demographic and socioeconomic factors and comparative data of the Study Areas, which includes CFX’s jurisdiction (Brevard, Lake, Orange, Osceola, and Seminole) as well as the two counties outside its jurisdiction (Polk and Volusia). The combined land area of the seven counties amounts to nearly 8,256 square miles, a size akin to the entirety of Massachusetts, a state encompassing 7,838 square miles.



## LANDSCAPE

### CFX's Five-County Jurisdiction

**BREVARD COUNTY | 1,016 Square Miles**  
Brevard County is located on Florida’s east coast, abutting the Atlantic Ocean. SR 528 is one of the few primary thoroughfares that link the region with Brevard and one of its premier industries, Port Canaveral, with a reported 4.07 million multi-day passengers in 2022. That topped Miami’s total of 4.02 million, making Port Canaveral the world’s busiest cruise port for 2022.

**LAKE COUNTY | 1,157 Square Miles**  
Lake County is located just northwest of Orlando. The region boasts easy access to major transportation networks and is well positioned to handle a significant portion of the future growth projected for Central Florida. The county works closely with its 14 municipalities and citizens on a variety of initiatives to improve the quality of life.

**ORANGE COUNTY | 1,003 Square Miles**  
Orange County is the hub of the region, boasting the largest population (1.25 million) and employment base (940,500 jobs). People live throughout the unincorporated areas of the county, as well as 13 municipalities, including

its five largest cities: Orlando, Apopka, Ocoee, Winter Garden and Winter Park. There are 109 centerline miles of the CFX System located within Orange County and each mile plays a critical role in the daily movement of goods and services that drive the Central Florida economic engine.

**OSCEOLA COUNTY | 1,506 Square Miles**  
Of the four counties within the CFX jurisdiction, Osceola has the largest geographical area – more than 1,500 square miles – but the smallest population – 422,000 residents. Most people live in the northwest and largely within its two cities, Kissimmee (the county seat) and St. Cloud, along with the well-established communities of Poinciana and Celebration. The bulk of Osceola is dominated by ranch lands, undeveloped prairies, woods and marshes.

**SEMINOLE COUNTY | 344 Square Miles**  
Seminole is less than one-quarter the size of Osceola and barely one-third the size of Orange. Regardless of its size, Seminole and its seven cities – relying in part on high-tech businesses – account for some of the highest per capita income in the state.

### Traffic Does Not Stop at County Lines

**CFX understands that traffic demands do not stop at county borders and that activity centers outside their jurisdiction will influence mobility demands within them. Two adjacent counties, Polk to the southwest and Volusia to the north, are dynamically linked to the Central Florida economy. A brief description of these counties is provided below.**

**POLK COUNTY | 1,798 Square Miles**  
Polk County is southwest of the region and has more than 633,000 residents. It is adjacent to Lake and Osceola counties and is strategically located between Tampa and Orlando. Interstate 4 (I-4) is the primary transportation corridor linking Polk to the region. The Central Florida Intermodal Logistics Center (ILC) is situated on 318

acres and provides a centralized hub for transportation, logistics and distribution serving Orlando, Tampa and other Florida markets, and supports thousands of jobs for the Central Florida economy. It has five 3,000-foot loading tracks and two 10,000-foot train arrival and departure tracks with a lift capacity of 300,000 containers per year.

**VOLUSIA COUNTY | 1,432 Square Miles**  
Volusia is just north of Seminole. Volusia cities such as DeBary, Deland and Deltona have acted as extensions of the Central Florida community. Volusia has the “World’s Most Famous Beach,” Daytona Beach, which is home to the national headquarters of the National Association for Stock Car Auto Racing, or NASCAR.

# OUR POPULATION

## Demographic Shifts

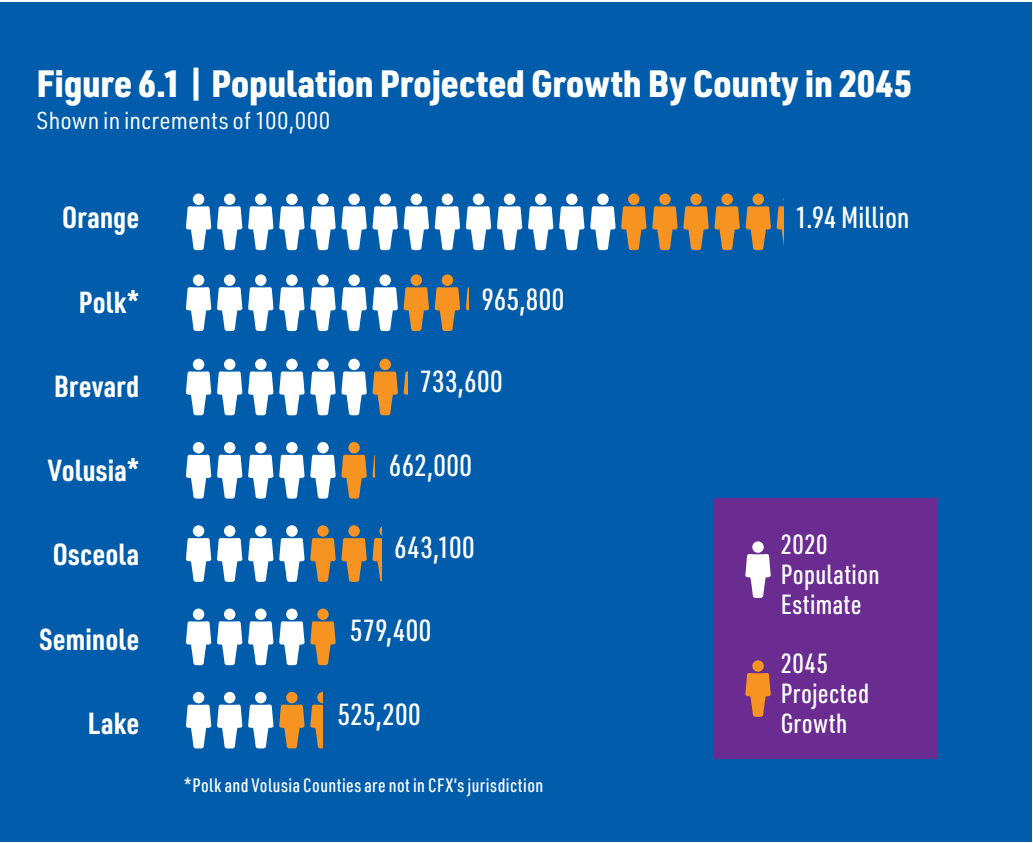
The U.S. Census Bureau reports that in 2022, Florida was the fastest-growing state in the country, with a population increase of 1.9% to 22,244,823 between 2021 and 2022. For the third most-populous state to also be the fastest growing is notable because it requires significant population gains.

The five counties that make up CFX’s jurisdiction (Brevard, Lake, Orange, Osceola, Seminole) are forecasted to grow from 3.35 million residents in 2022 to 4.52 million in 2045. That’s a 40 percent increase in coming decades.

Figure 6.1 summarizes the population projected growth by county. Orange County is expected to grow by over 525,000 new residents, which brings the total population close to 2 million by 2045. The county to experience the largest growth rate is Osceola County at 58%, with over 235,000 new residents. The neighboring Lake and Brevard counties are also poised to experience significant growth, welcoming an additional 158,000 and 126,000 new residents, respectively. This influx will elevate Brevard’s population to 733,600 and Lake’s to 525,200.

The magnitude of the number of new residents shows the pressing need for CFX to meet future demand by expanding capacity, improving infrastructure, and constructing new expressways that seamlessly integrate with the region’s mobility network.

Figure 6.1 displays this population growth by county in 100,000-resident increments, providing an estimate of the total population each county is expected to reach by 2045.



Source: University of Florida's Bureau of Economic and Business Research (BEBR), Projections by County.

## Population Dynamics

The University of Florida’s Bureau of Economic and Business Research (BEBR) updates the state and county population forecasts annually with three scenarios: low, medium, and high. Medium level projections are typically used to develop transportation plans. It should be noted that these projections refer solely to the resident population of Florida; they do not include temporary or seasonal residents whose usual place of residence is in another jurisdiction.

The entire study region is poised for a 1.4% growth rate through 2045, outpacing Florida’s projected growth.

Osceola County, in particular, emerges as a focal point, with an anticipated growth rate of 2.3% from 2020 to 2045.

Table 6.1 summarizes BEBR’s medium forecasts as Compound Annual Average Growth Rates (CAAGR).

Table 6.1 | Projected Population Growth (CAAGR) 2020-2045

COUNTY	2020-2025	2020-2030	2020-2035	2020-2040	2020-2045
Osceola	0.6%	1.2%	1.6%	2.0%	2.3%
Lake	0.5%	1.0%	1.3%	1.6%	1.8%
Orange	0.5%	0.9%	1.1%	1.4%	1.6%
Polk	0.2%	0.6%	0.9%	1.1%	1.3%
Brevard	0.3%	0.5%	0.7%	0.8%	1.0%
Seminole	0.3%	0.5%	0.7%	0.9%	1.0%
Volusia	0.3%	0.5%	0.7%	0.8%	0.9%
STUDYAREA	0.4%	0.7%	1.0%	1.2%	1.4%
FLORIDA	0.3%	0.6%	0.8%	1.0%	1.2%

Source: University of Florida Bureau of Economic and Business Research (BEBR)

**What is the Compound Annual Average Growth Rate (CAAGR)?**  
CAAGR is like the rate your phone battery might drain steadily each hour, except it’s about growth, not loss. Imagine a population or your bank account growing a bit each year, but not always by the same amount. CAAGR smooths out those ups and downs to give you an average yearly growth rate, as if it grew evenly every year.

Historical Trends

Table 6.2 shows the population trends from 1980 to 2021 and the corresponding compound average annual growth rates (CAAGR) are given in Table 6.3.

The seven-county study area population grew 2.8 times since 1980, from approximately 1.7 million to over 4.6 million in 2021, at 2.5 percent per year.

Table 6.2 | Historic Population 1980-2021

COUNTY	1980	1990	2000	2010	2021
Brevard	272,959	398,978	476,230	543,376	616,628
Lake	104,870	152,104	210,528	297,052	395,804
Orange	470,865	677,491	896,344	1,145,956	1,422,746
Osceola	49,287	107,728	172,493	268,685	403,282
Polk	321,652	405,382	483,924	602,095	753,520
Seminole	179,752	287,529	365,196	422,718	470,093
Volusia	258,762	370,712	443,343	494,593	564,412
STUDY AREA	1,658,147	2,399,924	3,048,058	3,774,475	4,626,485
FLORIDA	9,746,961	12,937,926	15,982,378	18,801,310	21,781,128

Source: U.S. Census Bureau

Since 1980, Osceola County grew fastest in the area by 5.3 percent per year.

Table 6.3 | Historic Population Growth (CAAGR) 1980-2021

COUNTY	1980-1990	1990-2000	2000-2010	2010-2021	1980-2021
Brevard	3.9%	1.8%	1.3%	1.2%	2.0%
Lake	3.8%	3.3%	3.5%	2.6%	3.3%
Orange	3.7%	2.8%	2.5%	2.0%	2.7%
Osceola	8.1%	4.8%	4.5%	3.8%	5.3%
Polk	2.3%	1.8%	2.2%	2.1%	2.1%
Seminole	4.8%	2.4%	1.5%	1.0%	2.4%
Volusia	3.7%	1.8%	1.1%	1.2%	1.9%
STUDY AREA	3.8%	2.4%	2.2%	1.9%	2.5%
FLORIDA	2.9%	2.1%	1.6%	1.3%	2.0%

Source: U.S. Census Bureau



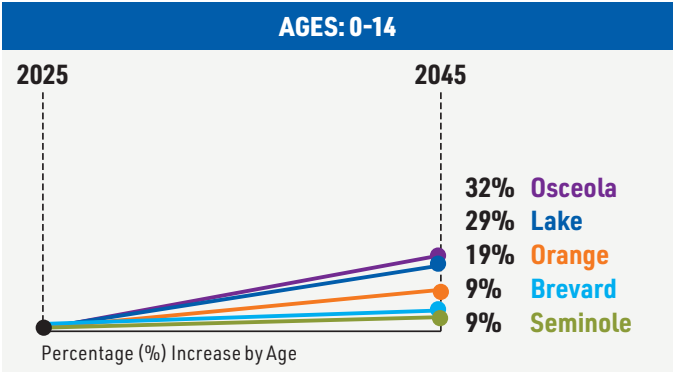
Aging Trend: Our Region is Maturing

The composition of Florida's population has noticeably changed in recent decades. Between 1950 and 2020, for example, the proportion of Florida's population younger than age 15 declined from 26.2 to 16.0 percent, and the proportion age 65 and older rose from 8.6 to 21.2 percent.

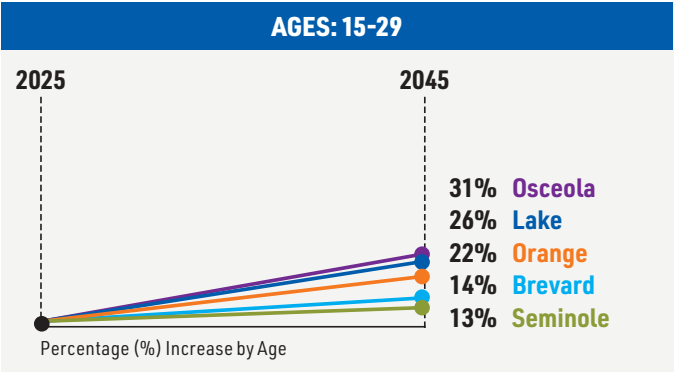
Changes in demographic composition have been even greater for many counties within CFX's five-county jurisdiction than for the state overall. These changes have implications for transportation planning and affect the demand for education, healthcare, housing, recreation, and many other goods and services.

According to the University of Florida's Bureau of Economic and Business Research (BEBR) several key factors emerge based on projections. This data allows us to consider the needs of all age groups, ensuring accessibility is central to future design and operation as we consider potential projects for inclusion in the 2045 Master Plan.

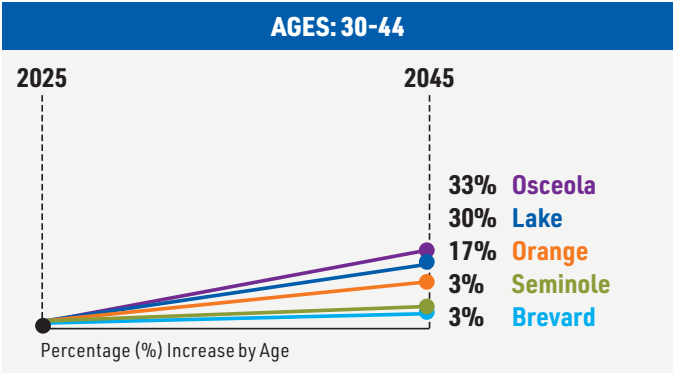
Figure 6.2 | Trends by Age 2025 - 2045



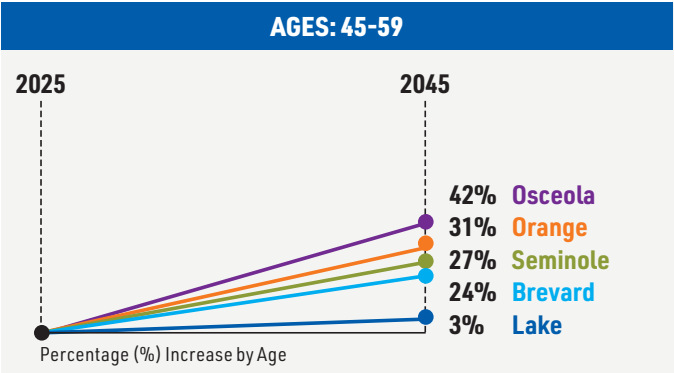
**Age 0-14 (Children/Young Adolescents)**  
Growth: All counties are experiencing growth in this age bracket, with **Osceola** showing the highest increase at 32%.



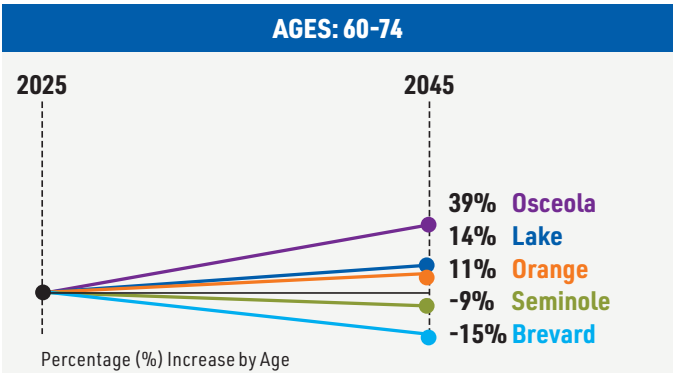
**Age 15-29 (Young Adults/Early Career)**  
Growth: Significant growth in this bracket is seen in **Osceola** and **Lake**, at 31% and 26% respectively.



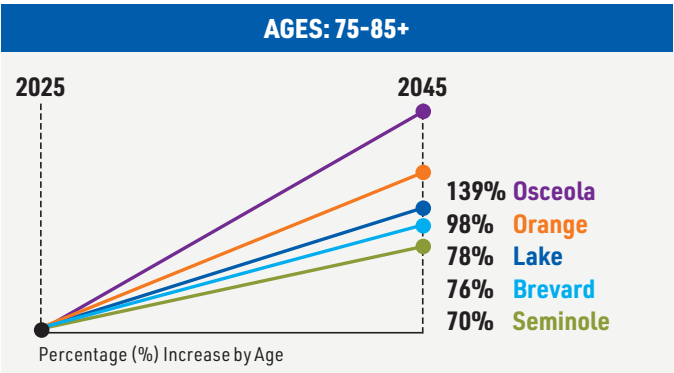
**Age 30-44 (Mid-Career Adults)**  
Growth: **Osceola** again leads with a 33% increase, indicating an expanding workforce.



**Age 45-59 (Late Career Adults)**  
Growth: Significant growth in **Orange** (31%) and **Osceola** (42%) suggests a maturing workforce.



**Age 60-74 (Pre-Retirement/Early Retirement)**  
Growth: Mixed trends with a decrease in **Brevard** (-15%) but an increase in **Osceola** (39%).



**Age 75+ (Senior Citizens)**  
Growth: All counties are showing growth, with **Osceola** experiencing a dramatic 139% increase.

Table 6.4 | Historical Population by Age

The U.S. Census data from 2000 to 2021 reveals shifting age brackets, most notably with increases in the 55-64 and 65-74 age groups (Table 6.4).

AGE	2000 CENSUS		2010 CENSUS		2021 ESTIMATE	
	Population	Percent	Population	Percent	Population	Percent
0-4	184,700	6.1%	221,562	5.9%	238,487	5.2%
5-19	615,697	20.2%	732,041	19.4%	831,897	18.0%
20-24	185,459	6.1%	264,847	7.0%	278,711	6.0%
25-34	405,961	13.3%	473,023	12.5%	629,333	13.6%
35-44	486,110	15.9%	490,323	13.0%	611,122	13.2%
45-44	395,565	13.0%	552,868	14.6%	574,148	12.4%
55-64	289,212	9.5%	453,437	12.0%	604,232	13.1%
65-74	262,234	8.6%	318,580	8.4%	502,019	10.9%
75+	223,120	7.3%	267,794	7.1%	356,536	7.7%
TOTAL	3,048,058	100.0%	3,774,475	100.0%	4,626,485	100.0%

Source: U.S. Census Bureau



Figure 6.3 | 2045 Trends by County

BREVARD			LAKE		
AGE	2045 (%)	<b>Significant growth</b> in the elderly population (75-85+ age group growing by 76%).  <b>Steady growth</b> in the younger demographics but at a slower rate compared to Lake County.	AGE	2045 (%)	Notable aging population with a <b>78% increase</b> in those aged 75-85+.  <b>Moderate growth</b> in younger demographics (0-14 and 15-29 age groups).
0-14	9		0-14	29	
15-29	14		15-29	26	
30-44	3		30-44	30	
45-59	24		45-59	3	
60-74	-15		60-74	14	
75-85+	76		75-85+	78	
ORANGE			OSCEOLA		
AGE	2045 (%)	<b>Highest growth</b> rates in both younger (0-14 age group growing by 19%) and older populations (85+ growing by 98%).  <b>Substantial growth</b> in working-age populations, indicating a potential increase in the workforce.	AGE	2045 (%)	<b>Fastest growing</b> county percentage wise for younger demographics (0-14 age group growing by 32%).  The elderly population (85+ age group) <b>more than triples</b> , suggesting a very rapid aging process.
0-14	19		0-14	32	
15-29	22		15-29	31	
30-44	17		30-44	33	
45-59	31		45-59	42	
60-74	11		60-74	39	
75-85+	98		75-85+	139	
SEMINOLE					
AGE	2045 (%)	<b>Lower growth rates</b> in the younger demographics compared to other counties.  <b>Significant increase</b> in the elderly population (75-85+ age group growing by 70%).			
0-14	9				
15-29	13				
30-44	3				
45-59	27				
60-74	-9				
75-85+	70				



Academic Impact

Educational institutions, from schools to universities, do influence regional travel patterns, behaviors and future needs.

The University of Central Florida (UCF) stands as significant in the academic landscape. From its inception in 1968, with under 2,000 students, UCF grew into a robust institution with nearly 72,000 students by 2020. The drop to 68,442 students in 2022, potentially due to the COVID-19 pandemic and a shift to virtual learning, highlights the evolving nature of academic attendance. It raises questions about whether such fluctuations will have enduring effects on travel behavior and demand.

When we examine public school enrollment as shown in Table 6.5, certain patterns emerge. Osceola County stands out with a remarkable annual growth of 3.6% over the past 10 years. On the other hand, Brevard and Volusia counties display a steadier pace, with only about 0.8% annual growth in public school enrollment.

While the study area has seen an average enrollment surge of 1.7% each year, it's crucial to consider that these figures don't always mirror population growth. The data can be affected by a range of factors, such as families without school-age children and the rise of home-schooling. Such shifts in academic enrollments, both at the university and public-school levels, highlight the need for adaptive strategies.

Table 6.5 | Historical School Enrollment 2013-2022

COUNTY	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2013-22	2013-22 CAAGR
Brevard	70,071	71,119	71,634	72,408	72,467	72,646	73,106	70,214	73,150	75,215	7.3%	0.8%
Lake	40,971	41,322	41,839	41,866	42,643	43,409	44,473	41,835	44,990	48,646	18.7%	1.9%
Orange	185,594	190,380	195,408	198,984	203,950	206,451	207,751	200,495	209,716	214,245	15.4%	1.6%
Osceola	57,239	58,465	61,141	62,561	66,010	67,632	69,378	69,162	73,738	78,633	37.4%	3.6%
Polk	96,144	97,877	99,247	101,051	102,863	104,305	106,782	104,667	111,898	116,027	20.7%	2.1%
Seminole	64,019	65,428	66,236	67,055	67,287	67,247	67,301	64,214	68,711	69,798	9.0%	1.0%
Volusia	60,935	61,351	62,304	62,269	62,132	62,027	62,121	57,758	62,887	65,548	7.6%	0.8%
STUDYAREA	574,973	585,942	597,808	606,194	617,346	623,716	630,911	608,345	645,091	668,113	16.2%	1.7%

Source: Florida Department of Education

OUR POPULATION: CONCLUSION

As we embrace a future punctuated by technological advancements like Connected and Automated Vehicles (CAVs) and other transportation technologies, the challenge for CFX deepens. With a rising older population and steady visitor influx, how does CFX calibrate its 2045 Master Plan over a 25-year horizon? Adaptability and flexibility.

This is precisely why CFX places immense value on piloting programs, testing, and refining them in collaboration with the public, customers and regional partners. Because a master plan isn't just a document; it's a commitment to ensure every journey, now and in the future, is efficient and forward-thinking.

1. Infrastructure Needs Based on Population Growth

Given the 1.4% projected growth rate for the study area, there will be a definitive increase in the number of residents who rely on transportation services.

2. Infrastructure Needs Based on Age

The upward shift in the older age brackets in Brevard and Lake counties suggests a growing percentage of the population might be less inclined to use personal vehicles in the future. Those in retirement no longer commute, but may make more trips for shopping and recreation or require greater access to medical and social assistance facilities. The aging population will also impact future land use, with uncertainty around whether older adults will age in place (stay in current homes) or move into smaller homes in more dense areas. With most older adults in these counties living in suburban areas, aging in place could pose challenges for meeting future mobility needs with non-auto modes. Opportunities to consider piloting self-driving technologies and new forms of on-demand mobility, autonomous vehicles, and clearer signage for the aging communities.

While there's an aging trend, Orange and Osceola counties' younger median age cannot be overlooked. The priority is to balance the transportation requirements of an active, younger population (such as rapid transit lanes, trail networks within right-of-way, electric vehicle charging stations, etc.) with those of an older demographic.

We must consider long-term investments in infrastructure that is multifaceted and can adapt to a dynamic population landscape, ensuring scalability and flexibility to meet future demands.

3. Osceola County-Specific Focus

With Osceola County projected to grow at a swift 2.3% per year, there is an immediate need for increased transportation demands. We will continue working with key partners like the Florida Department of Transportation, Florida's Turnpike Enterprise, Osceola County, City of Kissimmee and City of St.

REGIONAL POPULATION NEARING 4 MILLION: With the combined population of the region's five counties expected to approach 4 million over the next 25 years, regional collaboration becomes crucial and must take a holistic view, integrating cross-county traffic flows, regional transit systems, and the connectivity of transportation networks.

Cloud, as well as local residents and businesses to identify potential projects, evaluate the feasibility of new routes, and initiate forward-thinking solutions to accommodate Osceola's projected growth trajectory.

4. Emerging Technologies

As we approach 2045, technology will likely offer innovative solutions to transportation challenges. Given the growth rates, we will continue piloting and eventually implementing smart traffic management systems, connected vehicle technologies, and potentially even infrastructure that supports autonomous vehicles. This will not only cater to the growing population but also improve efficiency and safety.

5. Statewide & Regional Collaboration

Given that our Study Area's projected growth is poised to outpace the state's estimated 1%, our commitment remains firm in collaborating with both statewide and regional entities. This collaboration will forge a unified approach, facilitating smooth transitions between local and broader transportation networks.

6. Environmental and Urban Planning

Growth isn't just about numbers. As populations increase, so do concerns about environmental sustainability and urban sprawl. Future expressway projects will incorporate sustainability design principles from the CFX Sustainability Master Plan, and coupled with emerging technologies, our priorities remain clear: enhance safety, ensure accessibility, bolster resiliency, and minimize carbon emissions.

7. Workforce Development

With the steady growth in the working-age population, there's an opportunity to tap into the local talent pool by partnering with local educational institutions for workforce training programs tailored to the tolling industry such as renewable energy integrator at toll plazas and customer service and technologies tailored to the growing elderly population.

# OUR ECONOMY

## Historical Trends: Employment Dynamics

Historically, the Study Area’s employment growth consistently surpassed Florida’s by approximately 0.4% annually.

From 1980 onwards, Orange County established itself as the predominant employment hub, making up 42.2% of the entire area’s employment.

Although growth was robust in the 1980s at 4.7%, there was a noticeable deceleration between 2000 and 2010, dropping to 1.4%. Table 6.6 shows that Osceola and Lake counties were the exceptions, witnessing significant growth during this period. Post-2010, the growth rate resumed to 3.0%, with Osceola County, in particular, surging ahead at a striking 5.1%.

Table 6.6 | Historic Population 1980-2021

COUNTY	1980-1990	1990-2000	2000-2010	2010-2021	GROWTH RATE 1980-2021
Brevard	4.6%	1.8%	0.6%	2.1%	2.3%
Lake	2.3%	4.0%	2.8%	3.2%	3.1%
Orange	5.9%	3.6%	1.1%	3.1%	3.4%
Osceola	8.3%	4.0%	4.7%	5.1%	5.5%
Polk	2.2%	1.9%	0.9%	3.0%	2.0%
Seminole	7.0%	4.4%	1.6%	3.0%	3.9%
Volusia	3.3%	1.9%	1.8%	2.1%	2.3%
STUDYAREA	4.7%	3.0%	1.4%	3.0%	3.0%
FLORIDA	3.7%	2.8%	1.0%	2.8%	2.6%

Source: Bureau of Economic Analysis

## Projections: Peering into the Employment Future

According to projections detailed in Table 6.7, the entire study area’s employment is poised for a steady 1.7% growth per annum through 2050. Interestingly, this aligns with statewide predictions. Osceola County stands out as the future growth leader at a commendable 2.9% yearly, whereas Brevard and Volusia counties trail with modest projections of 1.0%.

Table 6.7 | Projected Employment Growth (CAAGR) 2020-2050

COUNTY	2020-2022	2022-2030	2030-2040	2040-2050	2022-2050
Brevard	3.2%	1.3%	0.9%	0.8%	1.0%
Lake	4.1%	2.1%	1.8%	1.6%	1.8%
Orange	7.7%	2.4%	1.9%	1.6%	1.9%
Osceola	7.9%	3.3%	2.9%	2.7%	2.9%
Polk	2.4%	1.4%	1.2%	1.0%	1.2%
Seminole	4.7%	2.0%	1.6%	1.4%	1.6%
Volusia	4.0%	1.4%	1.0%	0.8%	1.0%
STUDYAREA	5.6%	2.1%	1.7%	1.5%	1.7%
FLORIDA	4.7%	1.9%	1.5%	1.4%	1.6%

Source: Woods & Poole Economics, Inc., 2022

Table 6.8 shows employment projections by major sector: industrial, commercial, and service industries, with annual future growth averaging 0.7, 1.5, and 1.9 percent through 2050, respectively.

Table 6.8 | Projected Sector Employment Growth (CAAGR) 2020-2050

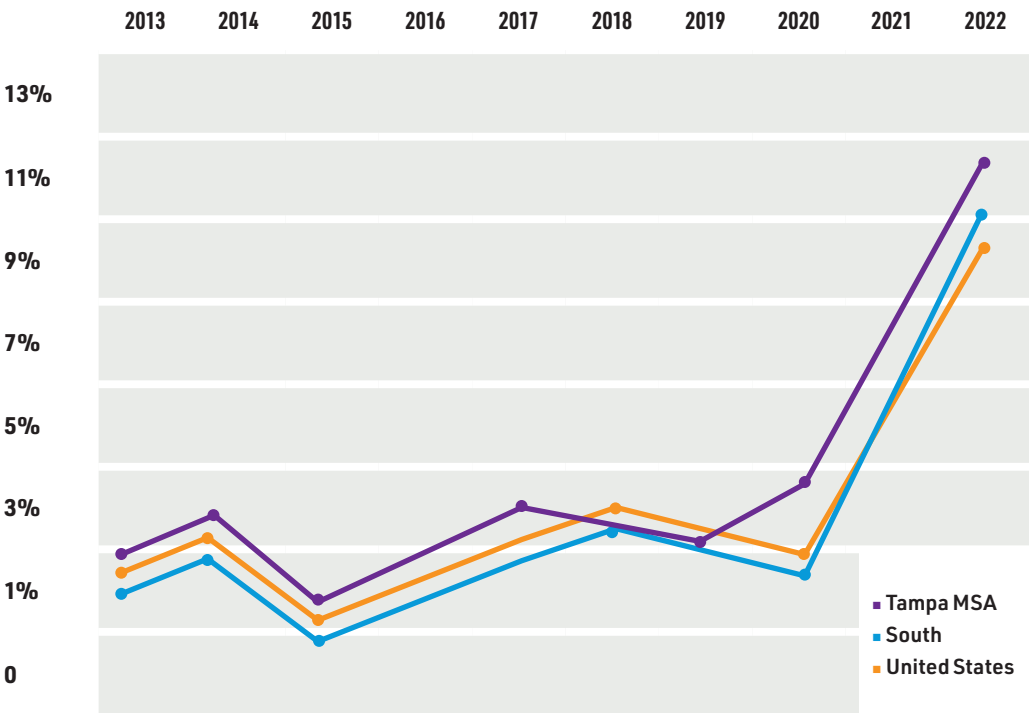
INDUSTRY	2020-2022	2022-2030	2030-2040	2040-2050	2022-2050
Industrial	1.9%	0.8%	0.7%	0.7%	0.7%
Commercial	3.7%	1.8%	1.5%	1.3%	1.5%
Service	6.7%	2.3%	1.8%	1.6%	1.9%

Source: Woods & Poole Economics, Inc., 2022

Consumer Price Index (CPI) and Income

While historical inflation rates have fluctuated between 2.0 and 3.0%, there were sharp inclines in 2021 and 2022 (Figure 6.4). These spikes can be attributed to factors such as escalating fuel costs, a surge in demand post-COVID-19, and supply chain disruptions. It’s crucial to note that the South Region’s change in CPI-U reached 8.577% in 2022, influencing the toll rate adjustment for the following fiscal year.

Figure 6.4 | Inflation (Annual CPI Change) 2013–2022



Source: Bureau of Labor Statistics

CFX Adopts Customer-First Policy

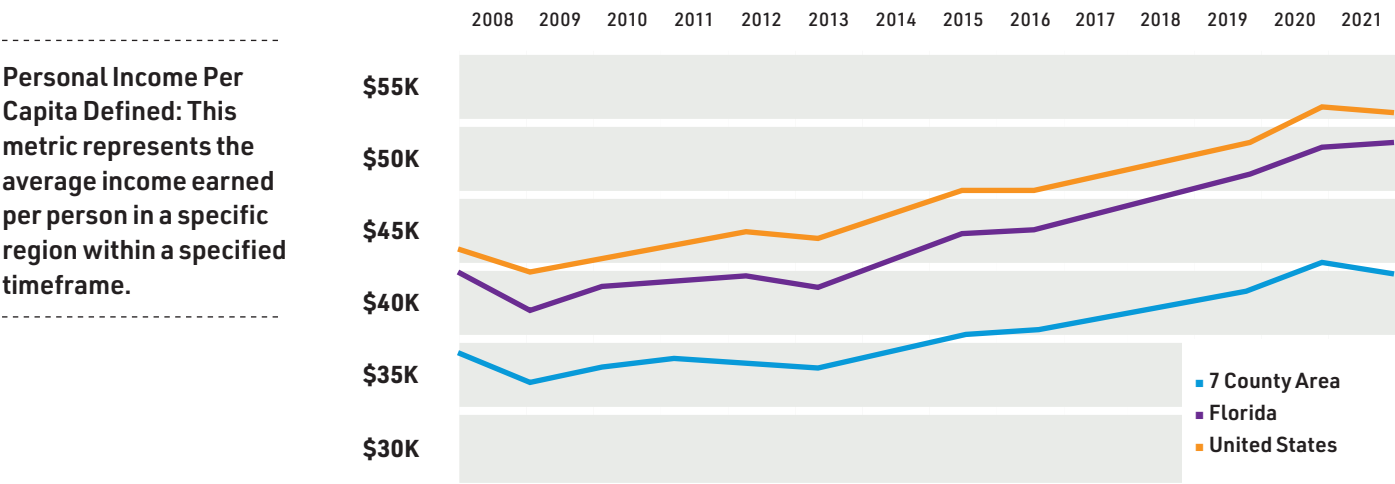
In 2017, the CFX Board unanimously approved a Customer-First Toll Policy where toll rates would adjust annually 1.5 percent or to the annual Consumer Price Index. This policy follows other Florida agencies’ state-mandated toll policies and shall offer customers greater budget certainty in managing their annual travel costs.

CFX does not receive funding from the State of Florida or from the federal government. All revenues collected from tolling are used to operate, maintain and improve the CFX expressway system to move people and goods seamlessly.

Income: Role in Travel Demand

Income significantly affects travel behavior, especially when considering the public’s willingness to pay tolls. A glance at Figure 6.5 reveals a consistent growth in real personal income per capita for both Florida and the study area over the past decade.

Figure 6.5 | Real Personal Income Per capita (2012 Dollars) 2008–2021

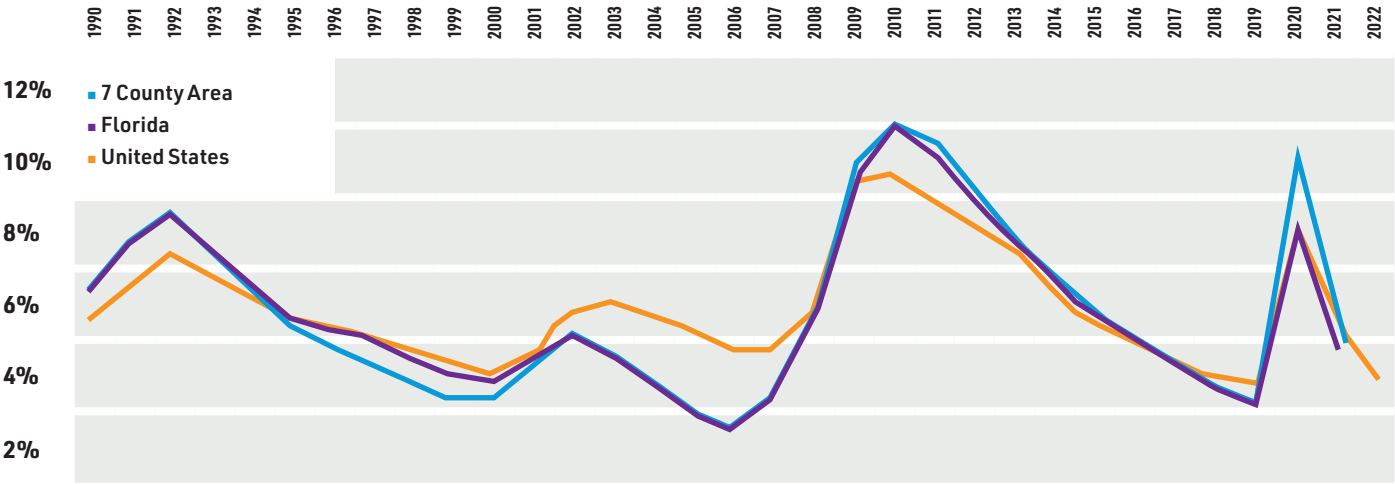


Source: Woods and Poole Economics, Inc., 2022

Unemployment: A Closer Look

Unemployment data is sourced from surveys and administrative data, offering insights into the health of the labor market. Historically, the study area closely mirrored Florida’s unemployment trends. There’s a clear narrative of decline post the 2008–2010 recession, interrupted briefly by the spike in 2020 and an undeniable fallout of the COVID-19 pandemic. As of early 2022, the data indicates a return to pre-pandemic stability.

Figure 6.6 | Historical Unemployment Rates 1990–2022



Source: Bureau of Labor Statistics

## Regional Tourism: From Global Attractions to Local Economies

Orlando’s reputation as a global tourism magnet is evidenced by its visitor statistics. As shown in [Table 6.9](#), in 2019, the region welcomed a record 75.8 million visitors.

The tourism landscape shifted drastically in 2020, with visitation numbers plummeting to just 35.3 million – a testament to the COVID-19 pandemic. The resilience of the industry shone through, with 2021 witnessing a bounce-back to 59.3 million visitors and the year 2022 holds even greater promise, particularly with Walt Disney World’s 50th-anniversary celebrations poised to attract large crowds.

Table 6.9 | Orlando Visitors (millions) 2011-2021

INDUSTRY	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2011-2021 CAAGR
Domestic	51.4	52.9	54.4	57.4	60.6	62.3	65.9	68.6	69.3	33.6	57.2	1.1%
International	3.8	4.3	4.9	5.4	5.9	5.7	6.2	6.5	6.5	1.7	2.1	-5.9%
Total	55.2	57.2	59.3	62.8	66.5	68.0	72.0	75.0	75.8	35.3	59.3	0.7%

Source: Visit Orlando

## Hotel Occupancy Rates

These rates are a barometer of tourism health, with higher percentages showing stronger demand.

As shown in [Table 6.10](#), the drop in 2020 to a mere 41.5% occupancy, from previous healthier rates, underscored the travel restrictions and decreased tourism because of the pandemic. However, the numbers in 2021 and 2022 reveal a sector in recovery, with rates ascending to 57.8% and 72.8%, respectively.

Table 6.10 | Metro Orlando Area Lodging 2012-2022

METRO ORLANDO	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Occupancy Rate	68.8%	71.0%	71.9%	77.0%	75.5%	79.3%	77.5%	76.1%	41.5%	57.8%	72.8%
Daily Rate	\$96.88	\$101.53	\$107.26	\$112.00	\$116.00	\$121.53	\$127.32	\$126.95	\$109.74	\$121.40	\$150.17
Room Night Demand (millions)	29.3	30.1	N/A*	33.0	33.0	34.7	34.5	34.5	15.3	25.8	34.6

Source: Visit Orlando | \* 2014 room night demand not available

## OIA Enplanements

Orlando International Airport (OIA) acts as a crucial gateway for many of these visitors. Enplanements, or the number of boardings, give direct insights into the volume of air travelers.

As shown in [Table 6.11](#), the significant decline in 2020, echoing the same numbers as two decades prior in 1999, highlights the severity of the pandemic’s impact. The projected rebound by 2022 emphasizes the airport’s role as a pivotal hub, supporting the tourism ecosystem.

High enplanement numbers signify heightened ground transport demand, making it imperative for CFX to anticipate, plan, and accommodate the resultant traffic volumes.

Table 6.11 | Historical OIA Enplanements 1990-2020

	1990	2000	2010	2020
Enplanements	8,683,491	14,683,594	16,651,359	13,985,651

Source: Federal Aviation Administration Terminal Area Forecasts

Table 6.12 | Projected OIA Enplanement Growth 2020-2040

	2021-22	2020-30	2030-40	2019-40
Enplanements	19.9%	8.4%	2.5%	2.5%

Source: Federal Aviation Administration Terminal Area Forecasts

### Why do tourism figures matter to CFX’s long-range planning?

The strength of the tourism sector in Central Florida doesn’t just impact roadway usage; it drives CFX to innovate and offer services tailored for this demographic. For instance, acknowledging the influx of visitors flying into OIA and renting vehicles, CFX introduced the Visitor Toll Pass (VTP) within the last five years. This initiative allows visitors to bypass the traditional rental car toll fees, offering them a free VTP that ensures they pay only the lowest toll rates, devoid of any additional charges.

But the innovation doesn’t stop there. Recognizing the potential to enhance transit options for visitors, CFX continues to explore the viability of bus rapid transit routes on expressways. This is a testament to CFX’s forward-thinking approach, where the master plan encompasses more than just infrastructure development. It’s about designing transformative solutions to cater to both residents and the ever-evolving demands of its vast influx of visitors.

OUR ECONOMY: CONCLUSION

The Central Florida Expressway Authority’s (CFX) 2045 Master Plan focuses on identifying future projects over a 25-year horizon. The data from metrics like the Consumer Price Index (CPI), Income, Unemployment, Personal Income Per Capita, and Tourism play pivotal roles in the formulation and adaptation of such a master plan. Here’s why each is essential:

**EMPLOYMENT DYNAMICS AND GROWTH AREAS**  
**Orange County remains the epicenter of employment.** There is significant growth projected for the working-age population (20-64). This demographic is typically the most mobile and requires robust transportation for commuting. With the workforce in Orange County projected to nearly double, CFX must work with county and regional partners and prepare for changes in commuting patterns both within and into the county. This suggests a need for robust multimodal connectivity, enhanced road capacity, and perhaps even new transportation modes such as rail or dedicated bus lanes within CFX’s right-of-way.

Although Orange County has the largest share of the population, Osceola and Lake are growing at a higher rate. Osceola is projected to be the fastest-growing county percentage-wise, with its population nearly doubling and its workforce increasing by 162%. This unprecedented growth will require extensive transportation planning, sustainability and scalable infrastructure investments and traffic management advanced technologies to prevent congestion.

**ECONOMIC INSIGHTS FROM CPI AND INCOME**  
**Inflationary trends, especially sharp spikes, indicate a changing economic landscape.** While the toll rate adjustments are tied to CPI changes, it’s crucial to ensure that these adjustments remain affordable and justified for the users.

**The steady increase in personal income** suggests that residents have the potential capacity to accommodate modest toll adjustments, as long as they perceive value in the service.

**LABOR MARKET HEALTH**  
**Unemployment trends offer insights into potential traffic volume.** High employment means more daily commuters and thus, potentially higher toll road usage. The return to pre-pandemic stability suggests a steady demand for transportation in the foreseeable future.

**THE PIVOTAL ROLE OF TOURISM**  
**Tourism significantly influences the transportation needs of a region.** The resilient nature of Central Florida’s tourism, despite global challenges, indicates that transportation solutions must be robust enough to handle massive surges and occasional declines.

**OIA’s arrivals directly correlate to tourism inflows.** With projections suggesting a rebound, there’s an imminent need to ensure seamless transportation from major hubs like OIA to tourist destinations.



# OUR TRAVEL PATTERNS

## Travel Today and in the Future

Table 6.13 Annual Average Daily Traffic (AADT) provides a snapshot, distilling the volume of vehicle traffic on an expressway or road over a year, averaged across each day. It serves as a standard benchmark to gauge not just the road usage, but also to forecast future demands and trends.

In 2022, our region’s expressways witness a blend of travel patterns.

For SR 408, the Conway East-West location is experiencing the highest volume with 152,800 vehicles. This is likely influenced by Downtown Orlando’s prominence as an employment hub.

SR 417’s Boggy Creek registers notable traffic at 98,100 vehicles, and SR 528, serving as a critical link near Orlando International Airport, reports a high volume of 105,800 vehicles at the Airport location.

Expressways like SR 538 in Osceola County, although registering lesser AADT at locations such as KOA and Marigold, are significant as Osceola County shows promising demographic growth.

**Travel by 2045**  
By 2045, the AADT patterns reflect the region’s demographic and economic growth trajectories.

The SR 429 Ponkan location, part of the Wekiva Parkway – a relatively recent addition to the expressway system – projects a significant traffic escalation, nearly tripling from its 2022 numbers. Such growth rates underscore the importance of the newer infrastructure that can handle the increased mobility demands of the surrounding developments.

By 2045, SR 408 at Hiawassee is projected to have a 72% growth rate, marking a significant increase.

SR 538 in Osceola County, with its Marigold location, is expected to see more than a twofold increase, indicative of Osceola’s booming population and development trends. While all expressways will observe increased vehicular movement, these specific corridors exemplify the regions where infrastructure planning will be paramount.

**Annual Average Daily Traffic with Growth Trends**  
Examining AADT in conjunction with regional growth and economic trends provides a view of evolving transportation needs. Osceola County, with its forecasted annual growth of 3.6%, corresponds with the anticipated surge in AADT, especially for expressways like SR 538. The strong employment presence in Orange County, which houses 42.2% of the regional employment, finds a parallel in the traffic volumes of SR 408.

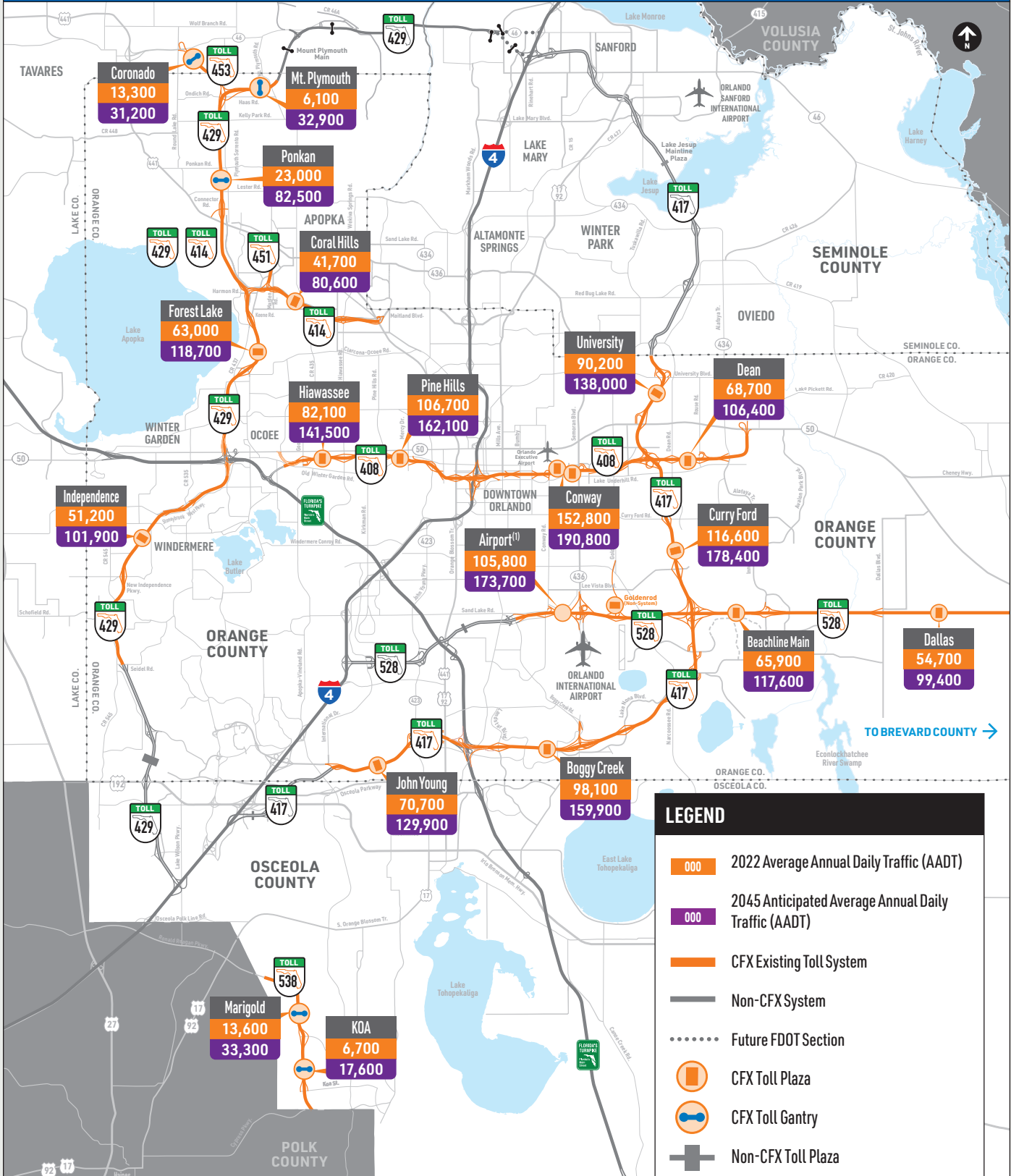
Our region anticipates a 1.7% employment growth annually up to 2050, a parallel rise in commuter traffic on our expressways is expected. Recognizing these intersecting trends between AADT, demographic growth, and economic patterns is foundational for ensuring the region’s readiness for current and future transportation demands.

Table 6.13 | Annual Average Daily Traffic (AADT)

	SR 408	2022	2025	2030	2035	2040	2045
	Hiawassee	82,100	91,500	104,000	116,500	129,000	141,500
	Pine Hills	106,700	115,200	127,000	138,700	150,400	162,100
	Conway East-West	152,800	161,200	168,600	176,000	183,400	190,800
	Dean	68,700	75,100	83,000	90,800	98,600	106,400
	SR 414						
	Coral Hills	41,700	46,900	55,400	63,800	72,200	80,600
	SR 417						
	John Young	70,700	80,600	93,000	105,300	117,600	129,900
	Boggy Creek	98,100	113,300	125,000	136,600	148,300	159,900
	Curry Ford	116,600	127,700	139,800	152,700	165,500	178,400
	University	90,200	98,800	108,602	118,400	128,200	138,000
	SR 429						
	Independence	51,200	57,600	68,700	79,800	90,900	101,900
	Forest Lake	63,000	70,900	82,900	94,800	106,800	118,700
	Ponkan	23,000	32,300	44,800	57,300	69,900	82,500
	Mount Plymouth	6,100	10,500	18,000	25,500	29,200	32,900
	SR 453						
	Coronado	13,300	16,700	21,300	25,900	28,600	31,200
	SR 528						
	Airport <sup>1</sup>	105,800	121,300	134,400	147,500	160,600	173,700
	Beachline Main	65,900	76,500	86,800	97,100	107,400	117,600
	Dallas	54,700	64,000	73,300	82,100	90,900	99,400
	SR 538						
	KOA	6,700	8,500	11,000	13,400	15,500	17,600
	Marigold	13,600	16,700	20,900	25,000	29,200	33,300

Note: (1) The Airport Plaza was removed in FY 2016. The future traffic forecasts represent the volumes for the corresponding segment of SR 528.

# Figure 6.7 | AADT Traffic Volume Map



Map not to scale.

(1) The Airport Plaza was removed in FY 2016.  
The future traffic forecasts represent the volumes for the corresponding segment of SR 528.

## Section 7

# Our Transportation Vision

In this section, you'll find the vision for the Central Florida Expressway Authority (CFX) expressway system. It includes goals, objectives, and guidelines, which serves as the framework to guide decisions about projects to consider for inclusion in the Master Plan.

- 2 | Vision and Mission Guide Our Future
- 3 | Purpose of a Master Plan
- 4 | Goals and Objectives
- 5 | Identifying Future Projects: A Dual Approach
- 6 | Guidelines for Future Expansions
- 7 | Guidelines for System Improvements
- 8 | Guidelines for Sustainability Projects
- 8 | Guidelines for Intelligent Transportation System (ITS)
- 9 | Guidelines for New Services & Emerging Markets

# Vision and Mission Guide Our Future

**OUR CORE VALUES - Excellence, Teamwork, Service, Commitment and Innovation - guide us toward our shared mission.**

**Vision:** To provide the region with a world-class, integrated mobility network that drives economic prosperity and quality of life.

**Mission:** To build, operate, and maintain a world-class mobility network through accountability, fiscally sound practices, and a community focus.

CFX’s vision statement focuses on the future and outlines our aspirations. Our mission statement, on the other hand, defines our purpose in the present. To achieve our vision, we rely on our mission statement. Our long-range Master Plan, which is updated every five years, serves as a strategy to advance our mission.

Central Florida must accommodate 4.4 million residents by 2045. In order to keep Central Florida moving, we have identified an estimated \$23.9 billion to \$29.2 billion in the 2045 Master Plan for future expressways and system improvements. This will help meet forecasted demand by expanding our regional mobility network.

The Central Florida Expressway Authority (CFX) is an agency of the State of Florida, created in 2014, and modified in 2017 to add Brevard County, pursuant to Chapter 348, Part III, Florida Statutes for the purposes of having the power to acquire, hold, construct, improve, maintain, operate, and lease an expressway system, including all approaches, roads, bridges, and avenues for the expressways and any rapid transit, trams, or fixed guideways within its right-of way and within its geographic boundaries of Brevard, Lake, Orange, Osceola, and Seminole counties.

## Purpose of a Master Plan

The Master Plan is CFX’s long-range transportation plan, which is updated every five years, offering an opportunity to identify new and innovative projects to solve some of this region’s most pressing transportation challenges over the next 25 years.

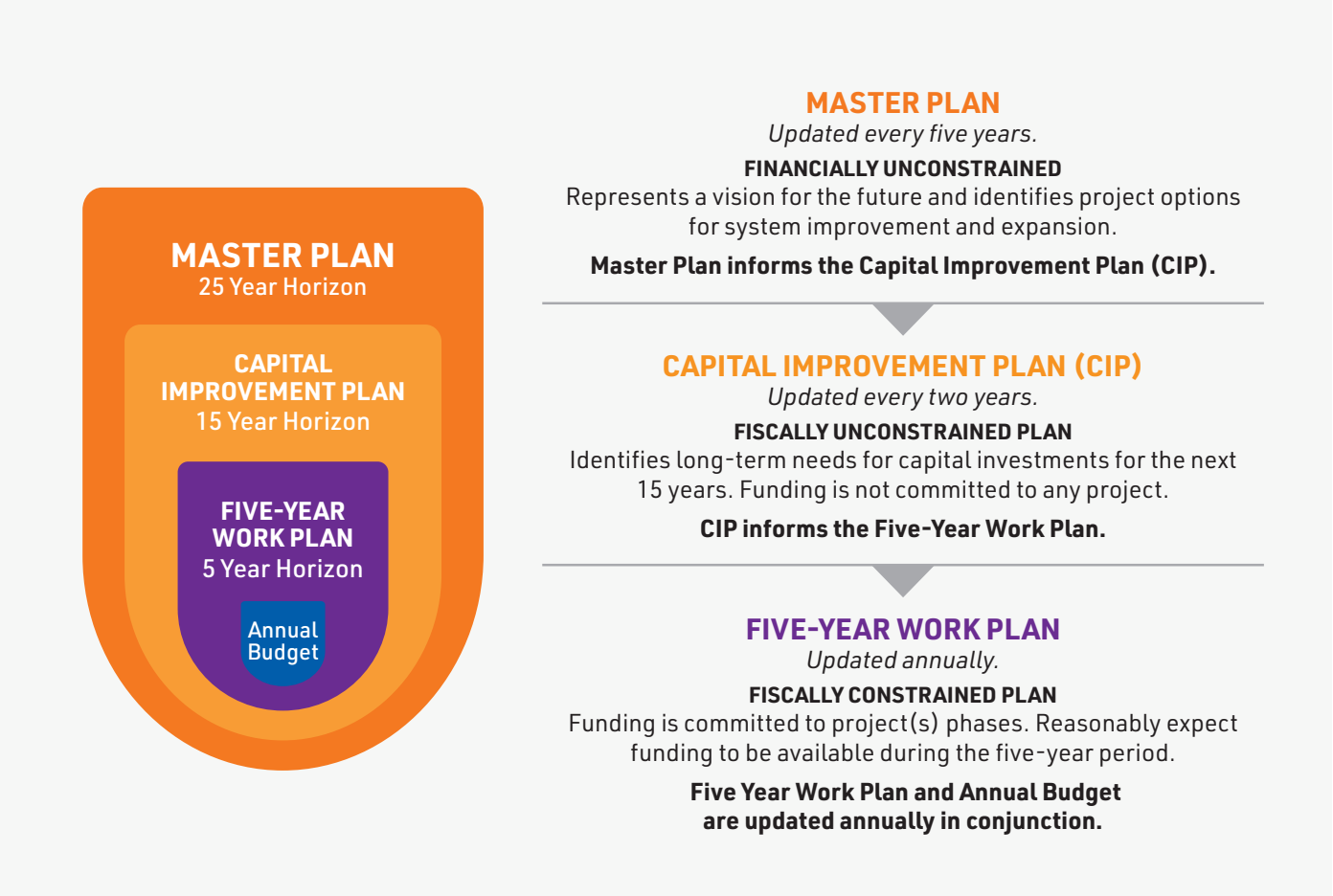
Although the Master Plan is fiscally unconstrained, it provides a structured and systematic way to gather information about our future operating environment, identify key drivers of change, and those project opportunities that will do their best to ensure CFX is ready to meet future travel demand.

**Master Plan Guidelines**

Our established guidelines provide a mechanism for decision making on potential capital improvements, system enhancements, and future expressway expansions for inclusion in the Master Plan.

1. Advance the Master Plan’s goals and objectives.
2. Guide decision making.
3. Comply with legislation.

The following section describes the goals, objectives and guidelines to help us identify potential capital improvements, system enhancements, and future expansions over a twenty-five-year horizon.





# Identifying Future Projects: A Dual Approach

The Central Florida Expressway Authority (CFX) operates a 125-mile expressway system solely funded by tolls, eliminating the burden on taxpayers for system operations, maintenance, and expansion. This places CFX under a fiduciary duty to two key stakeholders: toll-paying customers and bond investors.

Part of the Master Plan project identification process involves a preliminary cost and benefit evaluation, aiding decision-making. This section outlines two key guidelines for assessing proposed projects: the Cost-Benefit Approach and the Benefit-Cost Approach.

- CBA** **Cost-Benefit Approach (Business-Centric):** This approach operates from a straightforward financial perspective. Simply put, the revenue a project brings in should cover its cost. Typically, this method is more suited when considering new projects.
- BCA** **Benefit-Cost Approach (Public):** Aligned with the ethos of a government agency, this approach emphasizes the public's well-being. Here, the tangible and intangible benefits to the public, such as time savings or enhanced safety, should at least equal the project's cost. Because of its nature, we often apply this method to improvements within our existing system.

Master Plan is fiscally unconstrained, meaning that the potential projects are identified in the plan without regard to funding availability.

## Guidelines For Future Expansion

Ongoing development in the Central Florida region signifies that future transportation demands will surpass the existing capacity of the CFX’s five-county jurisdiction (Brevard, Lake, Orange, Osceola, and Seminole counties). There is also a pressing need to extend beyond these bounds. Because of this, we’ve established guidelines to grant the flexibility to meet the growing demand for high-performance mobility in a region that’s on the move.

Long-Term Trends to Warrant System Expansions:

- Regional economic growth
- Anticipated population surges
- Responding to shifting development trends

CFX Strategic Approach:

- Evaluating investments in new toll roads and interchanges, within CFX jurisdiction and the surrounding counties
- Exploring public and private partnerships, including multimodal initiatives
- Considering improvements to feeder roads within a mile of our system, ensuring they enhance system access and generate additional revenue

Expansion Project Categories:

- New Expressways
- New Interchanges
- Non-System Expansion
- Expansion into Other Jurisdictions
- Multimodal/ Intermodal Partnerships

CBA NEW EXPRESSWAYS

Generated new toll revenues equal to or in excess of project cost.  
For projects where revenue might be insufficient, consider pledging up to 50% of project costs, with the balance sourced from toll revenues and partner contributions. The feasibility is vetted via Concept, Feasibility, and Mobility studies.

New Design Standard for Right-Of-Way

All new expressways will include right-of-way with a minimum 330-foot-wide median width to accommodate current and future uses of the expressway system to assure maximum service with a minimum financial and environmental costs. These could include future construction, multimodal opportunities such as rail, bus rapid transit or trails, or Automated, Connected, Shared and Electric (ACES) technology or infrastructure connectivity to address transportation challenges we may face in the future.

CBA NEW INTERCHANGES

Generated new toll revenues equal to or in excess of project cost.  
CFX considers where growth has occurred near the system without adequate access. For projects where revenue might be insufficient, consider pledging up to 50% of project costs, with the balance sourced from toll revenues and partner contributions. The feasibility is vetted via Concept, Feasibility, and Mobility studies.

CBA NON-SYSTEM EXPANSION

Generated new toll revenues equal to or in excess of project cost.  
This guideline applies mainly to toll-free feeder road improvements or new arterial connections. The projects must comply with our Master Bond Resolution, which requires to be contiguous to and extend no more than one mile from our system.

CBA EXPANSION INTO OTHER JURISDICTIONS

For projects outside specific counties, generated toll revenues exceed project cost.  
For projects where revenue might be insufficient, consider pledging up to 50% of project costs, with the balance sourced from toll revenues and partner contributions. The project must also comply with Florida Statutes.

CBA MULTIMODAL/INTERMODAL PARTNERSHIPS

Generated revenues equal project costs.  
Explore funding or partnering on multimodal initiatives where revenue generated from the investment equals the project cost.

## Guidelines For System Improvements

CFX’s existing system handles a substantial share of Central Florida’s traffic and continuous investments are needed to maintain a level of service for our customers. The guidelines for evaluating system improvements focus on delivering benefits to customers and maintaining the level of performance of the system of expressways.

System Improvements Categories:

- Capacity Improvements
- Existing Interchanges
- Operational Improvements
- Electronic Toll Collection
- Renewal & Replacement

BCA CAPACITY IMPROVEMENTS

Project benefits should equal or exceed the cost.  
Benefits are measured by notable time savings, safety improvements, and crash reductions. Capacity improvements refer to modifications made to existing expressways, thereby reducing congestion and improving traffic flow. The most common is widenings.

Types of capacity improvements include:

**Lane Additions:** Expanding the number of lanes or increasing shoulder width to create additional lanes at specific times, known as Flex Lanes, or part-time shoulder lanes.

**High-Occupancy Vehicle Lanes:** Designating lanes for use of vehicles with multiple occupants.

**Variable Pricing Toll Lanes:** Designating lanes that change their toll price based on current traffic conditions.

**Access Management:** Regulating where and how motorists can enter and exit the expressway.

**Intelligent Transportation Systems (ITS):** Implementing technologies like dynamic messaging signs or real-time traffic monitoring to optimize traffic flow.

**Bus Rapid Transit (BRT) Lanes:** Designating specific lanes for buses.

BCA EXISTING INTERCHANGES

Project benefits should equal or exceed the cost.  
We measure benefits in terms of time savings, improved convenience of services, and potential reduction in crashes.

Interchange improvements, which typically involve widenings or making ramp modifications at intersection with crossroads. CFX is permitted to make improvements to non-tolled feeder roads within one mile of the transportation system.

BCA OPERATIONAL IMPROVEMENTS

Project benefits should equal or exceed the cost.  
These are relatively low-cost improvements, such as improved signing, pavement markings and short-distance auxiliary lanes and are ranked based on the potential to reduce crashes and delays.

ELECTRONIC TOLL COLLECTION

Produce a positive net revenue.  
We are committed to continually refining our toll collection methods. The anticipated advantages for our customers are reduced congestion, faster travel times, and lowered vehicle operational expenses. Below are two new guidelines we’re pursuing in the 2045 Master Plan.

**Transition to AET:** We’re focused on integrating all-electronic toll (AET) collection, making it standard for all new projects and transitioning the existing system to AET.

**Toll Rate Policies:** We’re revisiting our policies to ensure fair pricing across the system and to address facility constraints.

RENEWAL & REPLACEMENT

Adhere to a Maintenance Rating Program (MRP) rating of 90 or above, as mandated by the Florida Transportation Commission.

The Renewal & Replacement (R&R) program plays a critical role in preserving and advancing the quality of CFX’s infrastructure. Core Activities of the R&R Program:

- Milling and resurfacing roads.
- Replacing outdated or worn signage and pavement markings.
- Renewing various facility components.

To ensure the program’s effectiveness, CFX conducts annual assessments, identifying current and near-term defects and evaluating the condition of its assets. Assets that have deteriorated because of aging and are beyond routine maintenance are considered for potential inclusion in the Five-Year Work Plan.

## Guidelines for Sustainability Projects

Our shift toward sustainable transportation goes beyond mere commitments; it’s about creating tangible, long-lasting change. For the first time in the 2045 Master Plan, we’ve established guidelines to embed sustainability into our future projects:

- Resilient Infrastructure:** Use eco-friendly materials, design approaches and construction methods that both limit environmental impact and ensure long-term durability.
- Sustainable Transportation Solutions:** Champion transportation solutions that prioritize environmental sustainability and a healthier ecosystem.
- Collaborative Environmental Planning:** Prioritize close collaboration with environmental partners to jointly achieve goals.
- Incorporate Wildlife-Friendly Designs:** Design expressways and facilities to incorporate wildlife corridors wherever possible, with a focus on enhancing local ecosystems.
- Innovative Energy Exploration:** Dive into diverse energy solutions, such as solar-powered infrastructure, to maintain our networks with minimal environmental impact.

## Guidelines for Intelligent Transportation System (ITS)

- CFX’s commitment to a progressive transportation landscape is evident by integrating the ITS Master Plan with our broader 2045 Master Plan, laying the foundation for a mobility network that is responsive, resilient, and ready for the future challenges and opportunities.
- Traditionally, transportation planning and Intelligent Transportation Systems (ITS) and Transportation Systems Management and Operations (TSMO) have been independent activities. Planners typically focused on long-range transportation plans and project programming. Operators were primarily concerned with addressing immediate system needs, such as incident response, traffic control, and work zone management. But times are changing, and so are we.
- 1. Strategic Integration:** We recognize the potential of Intelligent Transportation Systems (ITS) to reshape the future. That’s why we’ve embedded these advanced systems directly into our 2045 Master Plan, setting forth a road map for a responsive, adaptive, and efficient transport network.
  - 2. Merging Priorities:** The ITS Master Plan isn’t just about technology. It’s underpinned by four pillars that are now embedded in the 2045 Master Plan: maintaining a balanced system, ensuring operational robustness, upholding environmental responsibility, and safeguarding the security and safety of everyone on our roads.
  - 3. Continuous Adaptation:** The transport landscape is developing rapidly. With our ongoing evaluations and strategic partnerships, CFX remains agile, ready to integrate breakthrough technologies to ensure a seamless, efficient, and safe experience for all users.

## Guidelines for New Services & Emerging Markets

- Our guidelines for new services focus primarily on leveraging the resources and opportunities associated with our expressway system and facilities.
- Traveler information services:** General information on routes, directions, and travel options as well as specific information for tourists and truck drivers.
  - Trip planning and management services:** Real-time information integrated into the commercial or emergency vehicle routing and dispatching process, ride-sharing information for high-occupancy vehicles and van pools, and trip management for tourists and business travelers.
  - Management of toll collection and electronic payment systems:** Fee-for-service basis for other transportation agencies such as parking lot operators and transit providers.
  - Integration of electronic payment between E-PASS and other transportation activities:** Parking lot operators, transit agencies, rental car companies and business.
  - Automobile technology in connected and automated vehicles (CAVs):** Integration with toll collection systems, allowing for seamless electronic toll payments, communication between vehicles and tolling infrastructure, and data exchange for accurate billing.

We aim to identify and capitalize on emerging markets that align with our existing technology services and infrastructure, including traveler information services, parking solutions, fiber optic cable networks, third-party payment partnerships, and advertising, while also delivering tangible benefits to our customers, all drivers on our system. All prospective projects must adhere to relevant legislation and align with our Master Bond Resolution.

## Section 8

# Public Input

The 2045 Master Plan was developed in accordance with the Central Florida Expressway Authority (CFX) policies and guidelines. This 2-year planning effort encompassed extensive public outreach, engagement with state, local, and regional partners, rigorous research and analysis, advisement from subject matter experts, and decision-making oversight by the CFX Governing Board. This section provides an overview of the approach, the engagement channels and input received to help identify future projects and initiatives for inclusion in the 2045 Master Plan.

2		Shaping Central Florida's Transportation Future
3		Engagement Channels
3		Engagement Highlights
4		Audience Focus Approach
6		2045 Master Plan Survey
8		Survey Questions & Responses
37		Transportation Agency Feedback
46		Regional Planning Organization Feedback
52		County Government Feedback
65		City Government Feedback
75		Private Sector Feedback
86		Board Materials
88		Board Workshop 1
93		Board Workshop 2
97		Board Workshop 3
99		Board Approval of the 2045 Master Plan
102		Master Plan Communications

# Shaping Central Florida's Transportation Future

The 2045 Master Plan was developed in accordance with the Central Florida Expressway Authority (CFX) policies and guidelines. This 2-year planning effort encompassed extensive public outreach, engagement with state, local, and regional partners, rigorous research and analysis, advisement from subject matter experts, and decision-making oversight by the CFX Governing Board.

This collaborative process ensured that the 2045 Master Plan's vision, goals, and recommendations reflect the diverse voices within CFX's five-county jurisdiction, as well as input from leading transportation authorities and policymakers. Input was gathered through listening sessions, stakeholder meetings, public presentations, and board workshops, involving public agencies, private organizations, and Central Florida's community members and customers.

The engagement efforts yielded remarkable results, including 1,105+ survey responses and over 100 hours of stakeholder meetings involving numerous organizations, transportation partners, and businesses. We conducted 31 public presentations and engaged with 13 state representatives, showcasing our commitment to transparency and inclusivity. Through these collaborative efforts, we have gathered valuable insights and feedback to shape a comprehensive 2045 Master Plan that caters to the needs of our community. With a focus on short and long-term goals up to 2045, our vision is to create a transportation system that serves as a cornerstone for a thriving and interconnected Central Florida.

The following section of this report offers valuable insights into the outcomes of our public engagement efforts. It presents an in-depth analysis of the online survey, highlighting the diverse and valuable responses received from participants. Furthermore, you will find an overview of the CFX Governing Board Workshops, where active contributions and insights were provided by board members. Highlights from our public and stakeholder meetings as well as access to a range of informational collateral, presentation materials, press releases, and other resources utilized by our dedicated CFX staff throughout the 2-year engagement period are presented.

## CFX JURISDICTION



## ENGAGEMENT CHANNELS

Traditionally, our public and stakeholder engagement relied on face-to-face meetings, public presentations, and group discussions. The COVID-19 pandemic in 2020 prompted a fundamental shift in our approach. This led us to rethink how we connect with customers, stakeholders, partners, and the public.

CFX utilized various methods to gather insights and facilitate meaningful discussions during public and stakeholder engagement. These efforts contributed to the confirmation of the 2045 Master Plan goals, the refinement of objectives, and the compilation of recommendations for future projects to be included in the final plan that would advance CFX's vision of providing the region with a world-class integrated mobility network that drives economic prosperity and quality of life.


- Online survey** reaching a diverse group of stakeholders and customers.
- Channel partnerships** with chambers, local governments, educational institutions, associations, businesses to share the online public survey with their members, employees, or constituents.
- Presentations** to city and county commissions, in-person and virtual.
- Virtual presentations** to engage a wider audience.
- One-on-one meetings** and small group meetings.
- Technical discussions** and onsite meetings.
- Future-ready scenario planning workshops** with the CFX Board Members, exploring cutting-edge transportation concepts like automated vehicles, technology integration and congestion management.
- Communication tools**, including website, e-newsletters, social media, and press announcements.

## ENGAGEMENT HIGHLIGHTS

PUBLIC & CUSTOMER OUTREACH		STAKEHOLDER ENGAGEMENT	
1,105+	Public Surveys Completed	100+	Hours of Stakeholder Meetings
1,800	CFX Driving Customer E-News	60	Stakeholder Groups Engaged
49	Partners Received Online Survey	30	Partner Agencies, Regional Organizations, and Business Collaborators
4	Social Media Posts	31	Public Presentations at City and County Commission
		13	Meetings with Florida State Legislators
		11	Technical Meetings
CFX GOVERNING BOARD INPUT		3	Future -Ready Workshops
		2	Public Board Meetings

## AUDIENCE FOCUS APPROACH

Our public and stakeholder engagement approach segmented audiences into four categories, each having an important role in identifying project needs, system-wide improvements and emerging services to consider in the 2045 Master Plan.




### Customers

These individuals, who utilize the CFX expressway system, contribute valuable input to ensure that their needs and preferences are considered in the plan’s development.




### Stakeholder Influencers

Transportation partners, leadership and staff, and elected officials play a pivotal role in identifying challenges, opportunities, and potential implementation plans to guide the future development of the expressway system.



### Movers

Regional and local planners, economic development commissions, non-profit organizations, and local business staff bring their expertise to the table, providing insights, experience and other factors impacting future expressway planning.



### Decision Makers

The members of the CFX Governing Board, as the ultimate decision-makers, utilize the master plan to make informed decisions on capital investments, ensuring the long-term viability and effectiveness of the regional transportation network.



### Stakeholder Influencers

*In alphabetical order*

#### County Commissions

Brevard County  
Lake County  
Orange County  
Osceola County  
Brevard County

#### City Councils/Commissions

City of Apopka  
City of Clermont  
Town of Belle Isle  
City of Clermont  
City of Eustis  
City of Kissimmee  
City of Maitland  
City of Mount Dora  
City of Ocoee  
Town of Oakland  
City of Oviedo  
City of Sanford  
City of St. Cloud  
City of Tavares  
Town of Windermere  
City of Winter Garden  
City of Winter Springs

#### Transportation Agencies & Partners

Florida Department of Transportation (FDOT), District 5  
Florida’s Turnpike (FTE)  
Florida’s Space Coast Economic Development Commission (EDC)  
Greater Orlando Aviation Authority (GOAA)  
LYNX, Central Florida Transportation Authority  
Melbourne Orlando International Airport  
NASA/Kennedy Space Center  
Orlando Sanford International Airport (Sanford Airport Authority)  
Space Florida

#### Regional Transportation Planning Councils and Economic Development Organizations

Central Florida MPO Alliance  
Downtown Orlando Partnership  
East Central Florida Regional Planning Council  
East Orlando Chamber  
Florida’s Space Coast Economic Development Commission (EDC)  
Lake-Sumter MPO, Community Advisory Committee  
Lake-Sumter MPO, Technical Advisory Committee  
Metro Plan Orlando Board  
Metro Plan Orlando Citizens’ Advisory Committee (CAC)  
Metro Plan Orlando Municipal Advisory Committee (MAC)  
Metro Plan Orlando Technical Advisory Committee (TAC)  
Metro Plan Orlando Transportation System Management & Operations Advisory Committee (TSMO)  
Orlando Regional Chamber/Orlando Economic Partnership (OEP)  
OEP Alliance for Regional Transportation Executive Committee



### Stakeholder Influencers *(continued)*

#### Regional Transportation Planning Councils and Economic Development Organizations *(continued)*

Space Coast TPO Board  
Tri-County League of Cities  
West Orange Chamber of Commerce

#### Community Partners & Organizations

Association of Poinciana Villages  
Central Florida Hotel and Lodging Association (CFHLA)  
Deseret Ranches of Florida  
Florida Citrus Sport  
Greater Orlando Builders Association  
Orange County Public Schools (OCPS)  
Orlando Health  
Seminole County Public Schools  
Seminole State College  
The Viera Company

#### Florida State Legislature

##### Florida Senate

Senator Dennis Baxley  
Senator Randolph Bracy *(represented by Legislative Assistant Alex Redkin)*  
Senator Jason Brodeur  
Senator Linda Stuart  
Senator Victor Torres  
Senator Tom A. Wright

##### Florida House of Representatives

Representative Kristen Arrington  
Representative Kamia L. Brown *(represented by Legislative Assistant Artena Greene)*  
Representative Randy Fine  
Representative Joy Goff-Marcil  
Representative Artena Greene *(Legislative Assistant to Rep. Kamia L. Brown)*  
Representative Scott Plakon  
Representative David Smith  
Representative Josie Tomkow



### Movers

#### Technical Meetings

Lake County Staff  
Orange County Staff  
Osceola County Staff  
Seminole County Staff  
Brevard County Staff  
City of Orlando Staff  
Duke Energy Staff  
Polk County TPO Staff  
Florida’s Turnpike Enterprise Staff  
Florida Department of Transportation (FDOT)  
District 5, Staff  
Space Coast TPO Staff



### Decision Makers

#### Central Florida Expressway Authority Board of Directors

Sean Parks, Board Chairman, Lake County  
Jerry Demings, Vice Chairman, Orange County Mayor  
Lee Constantine, Treasurer, Seminole County  
Brandon Arrington, Osceola County  
Buddy Dyer, Mayor of Orlando  
Jay Madera, Gubernatorial Appointment  
Christopher “C.J.” Maier, Gubernatorial Appointment  
Rafael “Ralph” Martinez, Gubernatorial Appointment  
Vacant, Brevard County

## ADAPTING TO COVID-19 CHALLENGES

The emergence of COVID-19 in 2020 brought about unprecedented disruptions across our society and economy, impacting various facets, including transportation. In March 2020, Governor Ron DeSantis issued Executive Order 20-52, declaring a statewide emergency in response to the pandemic.

It was within this challenging context that our 2045 Master Plan took shape, beginning in the summer of 2020 through December 2022, when the plan received the approval of the CFX Board. What sets this plan apart is that it’s not merely a continuation of past Master Plans; it represents a shift from a conventional plan development approach to one that is adaptive and forward-thinking.

#### Public Engagement Amidst Distancing

The traditional modes of public engagement were challenged by social distancing directives and stay-at-home orders for the first 15 months of information gathering and outreach. We leveraged digital platforms and extended timelines to gather meaningful input, ensuring stakeholders, partners, and the public’s voice wasn’t diminished but amplified.

# 2045 Master Plan Survey

A **Master Plan** is a long-range planning study that serves as a visionary blueprint for future operations and capital investment decisions over a 25-year horizon and serves as the basis for CFX's Five-Year Work Plan that is reviewed annually.

In September 2020, CFX embarked on a comprehensive listening engagement tour across the five-county jurisdiction of Brevard, Lake, Orange, Osceola, Seminole and surrounding counties. These engagements unearthed invaluable insights into existing expressway system needs, technological advancements, potential expansion projects, and opportunities for multimodal partnerships.

Stakeholders from diverse backgrounds, including city councils, county commissioners, metro planning organizations, traffic engineers, educational institutions, associations, and businesses, actively participated in virtual and in-person meetings. Their feedback, combined with input from small group meetings and interviews, formed the framework for the 2045 Master Plan.

A public survey played a crucial role in gauging public sentiment. A resounding 69% of respondents deemed the CFX Expressway system as essential, with an overwhelming 83% rating CFX's ability to manage operations as good or excellent. Additionally, 42% of respondents advocated for CFX to integrate smart road technology in the future.

## SIX COUNTY PUBLIC ENGAGEMENT REACH



## PUBLIC AND STAKEHOLDER FEEDBACK

The 2045 Master Plan survey ran for 17 months, receiving 1,105 responses and a 56.2% response rate. The survey comprised of 18 questions, with 5 being open-ended, allowing respondents to provide their input.

The emergence of COVID-19 brought about unprecedented disruptions. The traditional modes of public engagement were challenged by social distancing directives and stay-at-home orders for the first 15 months of information gathering and public engagement. We leveraged digital platforms and extended timelines to gather meaningful input, ensuring stakeholders, partners, and the public's voice wasn't diminished but amplified.

## SURVEY DISTRIBUTION

The online survey was distributed following all virtual and in-person presentations, meetings, interviews, and events and it was accessible on CFX's website at CFXway.com.

The online survey was distributed to **49 channel partners** for sharing with members, customers, employers, and constituents. The survey was also featured in electronic newsletters.

## Newsletter Distribution

- CFX Driving Newsletter
- East Orlando Chamber Newsletter
- Orlando Economic Partnership Newsletter
- Space Coast TPO Newsletter
- West Orange County Chamber Newsletter

## 49 CHANNEL PARTNERS

- 26 Chambers of Commerce
- 15 Regional Government Entities
- 5 Educational Institutions
- 3 Economic Development Associations

### Organizations and stakeholders CFX met with:

- African American Chamber of Commerce of Central Florida • Apopka Area Chamber of Commerce • Association of Poinciana Villages • Astor Chamber of Commerce • Brevard County • Brevard County Board of County Commissioners • Casselberry Chamber of Commerce • Central Florida Disability Chamber • Central Florida Hotel and Lodging Association (CFHLA) • Central Florida MPO Alliance • City of Altamonte Springs • City of Apopka • City of Bay Lake • City of Belle Isle • City of Casselberry • City of Clermont • City of Edgewood • City of Eustis • City of Fruitland Park • City of Kissimmee • City of Lake Mary • City of Leesburg • City of Longwood • City of Maitland • City of Mascotte • City of Minneola • City of Mount Dora • City of Ocoee • City of Orlando • City of Oviedo • City of Sanford • City of St. Cloud • City of Tavares • City of Umatilla • City of Winter
- Garden • City of Winter Park • City of Winter Springs • Deseret Ranches of Florida • Downtown Orlando Partnership • Duke Energy • East Central Florida Regional Planning Council • East Lake Chamber of Commerce • East Orlando Chamber (Coffee Club East) • Elevate Lake • Embry-Riddle Aeronautical University • FDOT, Florida's Turnpike Enterprise • Florida Citrus Sports/Camping World Stadium • Florida Department of Transportation (FDOT), District 5 • Florida Polytechnic University • Florida's Space Coast Economic Development Commission • Full Sail University • Greater Orlando Aviation Authority (GOAA) • Greater Orlando Builders Association • Hispanic Chamber of Commerce of Metro Orlando • I-Drive Chamber of Commerce • Indian River County Chamber of Commerce • Kissimmee/Osceola County Chamber of Commerce
- Lady Lake Chamber of Commerce • Lake County • Lake County Board of County Commissioners • Lake Eustis Area Chamber of Commerce • Lake Nona Reg. Chamber of Comm • Lake-Sumter MPO • Leesburg Area Chamber of Commerce • LYNX • Maitland Area Chamber of Commerce • MetroPlan Orlando • Mount Dora Area Chamber of Commerce • NASA/Kennedy Space Center • OEP Alliance for Regional Transportation • Orange County Board of County Commissioners • Orange County Public Schools (OCPS) • Orlando Health • Orlando Melbourne International Airport • Orlando Regional Chamber/Orlando Economic Partnership • Orlando Sanford International Airport • Osceola County • Osceola County Board of County Commissioners • Oviedo-Winter Springs Regional Chamber of Commerce • Polk County TPO • Port Canaveral • Sanford
- Chamber of Commerce • Seminole County • Seminole County Public Schools • Seminole County Regional Chamber of Commerce • Seminole State College • Space Coast TPO • Space Florida • St. Cloud Chamber of Commerce • Stetson University • Tavares Chamber of Commerce • The Viera Company • Titusville Area Chamber of Commerce • Town of Astatula • Town of Eatonville • Town of Lady Lake • Town of Oakland • Town of Windermere • Tri-County League of Cities (Orange, Seminole & Osceola) • West Orange Chamber of Commerce • Winter Park Chamber of Commerce

# Survey Questions & Responses

## SURVEY INTRODUCTION

CFX is an independent agency of the state of Florida, established in 2014. CFX has the authority to build, improve, operate and maintain an expressway system within the geographic boundaries of Orange, Osceola, Seminole, Lake and Brevard counties.

CFX is a 125-mile system that includes: 870 lane miles, 73 interchanges, 14 mainline toll plazas, 5 mainline gantries, 74 ramp toll plazas and 343 bridges and eight named expressways.

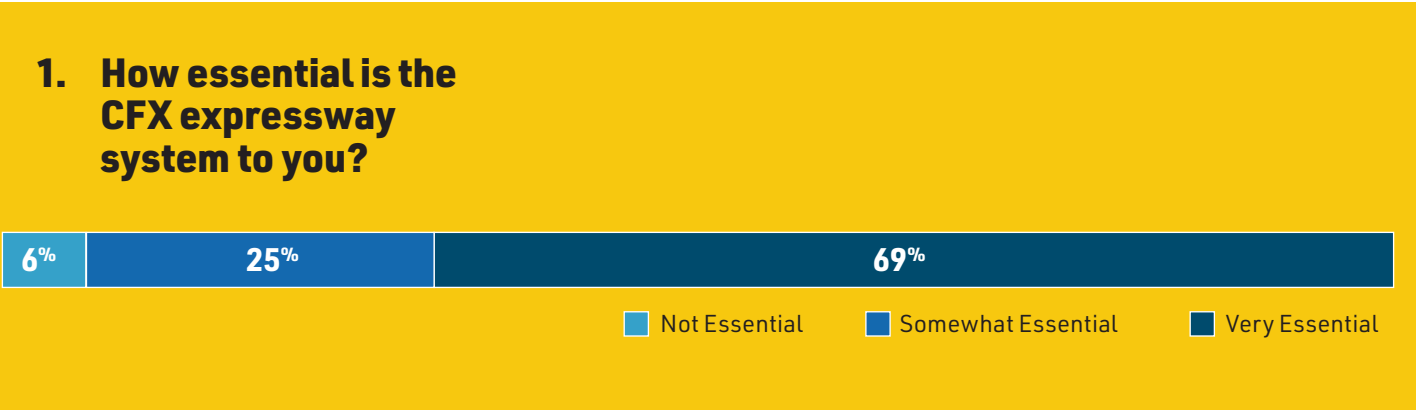
On average, more than 1 million toll transactions are recorded every day, and more than 80% of these toll transactions are electronic. Introduced in 1994, the E-PASS transponder was the first electronic toll-collection device in Florida. Today, over a half-million transponders are in circulation in Central Florida.

The expressways listed below are part of the Central Florida Expressway (CFX) system.



Portions of these toll roads are owned and operated by Florida's Turnpike Enterprise.

## SURVEY QUESTIONS & RESPONSES



2. CFX operates a 125-mile system of expressways. How do you view CFX’s ability to manage its operations? Provide any additional feedback in the comments section.



Below are the actual comments that reflect the majority of those who expressed their opinion.

- I’ve been in Orlando since 1987, and I’ve seen how this area has grown. So yes, CFX is doing a great job.
- Expressways are in good shape generally from the driver’s point of view.
- Would like to see more signage of traffic incidents ahead, like accident, construction, etc.
- There should be warnings posted before driving into a traffic jam that doesn’t move fore2 hours. When an accident is so serious, the warnings should come up about 3 exits before simply saying Emergency 3333 (Give it a number when it is a death or other serious accident where no traffic can move)-Exit Here.
- Had issues with billing where I was charged toll-by-plate even though I had a registered E-Pass to the car.
- And would like to see decrease in tolls when major construction going on causing major delays in traffic.
- Usually, roads are in good condition. Safety barriers are repaired soon after being damaged.
- Failure to expand with the rise in traffic.
- Still troubles with billing issues with Sunpass and E-PASS - not always billed correctly.
- Tolls are expensive. E-PASS discount program could be better.
- Very good from a logistical standpoint. Not-so-good from the standpoint of consumer value. Tolls, tolls, tolls!!!
- Cyber security in the United States is at its greatest threat today. Currently, as I can see from the invoices I receive from when I was using an E-PASS and in un-manned tolls, I can see my location and timestamp and often a picture of my vehicle and license plate. This gives up all my most important private information. All it takes is a bad actor in the E-PASS software engineering department and a cyber-attack for that information to be exposed to unwell usage. I pay a toll multiple times a day near my home. I would like another option; however the drive around is more expensive than the toll. Tolls were meant to avoid traffic build up, but it is becoming a threat to US citizens data. What are you doing about this in your Master Plan?? I did not see it mentioned.

CONTINUED

- “Toll Interoperability needs improved. Having an E-PASS or Sunpass while towing a trailer for instance results in a double charge because a plate isn’t on file.
- “Management of existing roadways is excellent, but future planning is poor and slow.
- “I would like to see some advancement in technology when it comes to toll collection. I want to be able to have my phone pay my tolls.
- “I appreciate that the system is well-maintained and sometimes even aesthetically pleasing. I recognize that widening and expansion projects come at a cost and feel my toll dollars are put to good use.

3. What makes CFX expressways different than the other roads or modes of travel you choose to use in Central Florida?

Below are the actual comments that reflect the majority of those who expressed their opinion.

Traffic Management and Reliability

- “Most expedite travel with the current exception be the 408 eastbound at I-4, the 408 eastbound after the 417 interchange.”
- “Significantly less traffic compared to I-4 and surface roads.”
- “The traffic moves even when there is construction.”

Maintenance and Aesthetics

- “So well maintained! Cleaned, mowed, and always well kept up.”
- “Better paved. Cleaner. More trees and landscaping.”
- “I can drive without having to be concerned of a potential pothole like I have to with i4.”
- “Quite happy with the attention to the landscaping on recent projects such as the 453 and the improvements that were done on 46 to 441.”

Convenience and Efficiency

- “Keeps me out of downtown traffic.”
- “Get me where I want to go in the shortest amount of time possible.”
- “Best means to go east/west and around Orlando.”
- “Convenience. I live near the Crystal Lake slip ramps on 408, and it is the most desirable way to enter/exit the limited access network in central Florida.”
- “Coming from Lake County, the CFX offers a convenient way to reach parts of Orlando that would otherwise require snaking around I-4.”
- “Nothing much except they run on better routes.”

Environmental Considerations

- “The newer roads are being constructed with a lot of consideration and accommodations for wildlife.”



Reduced Travel Time

- “I spend less time on the road and more time in meetings.”
- “Besides the tolls, drivers get to destinations more quickly.”
- “Traffic isn’t as heavy, makes for quicker trips.”

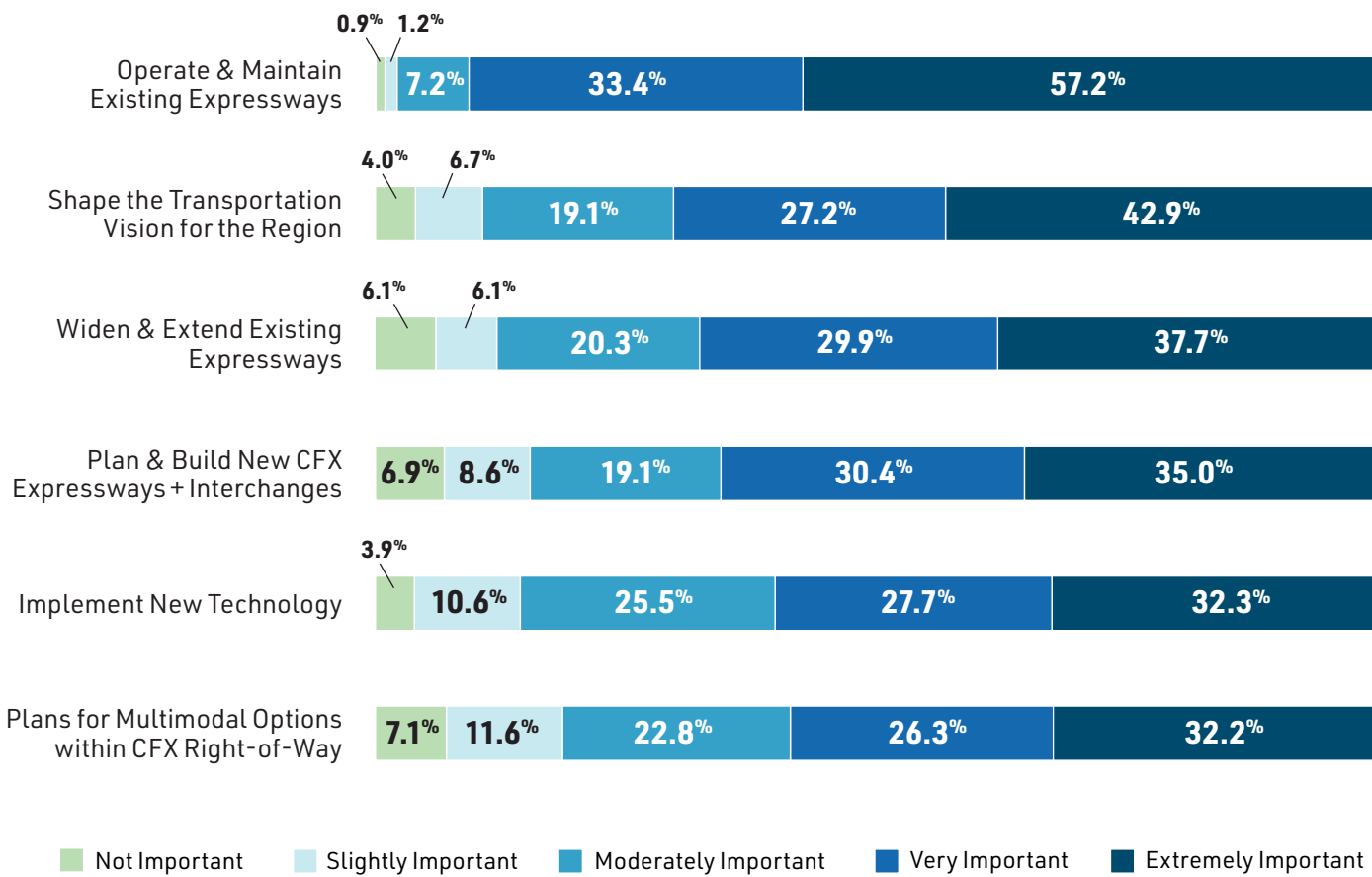
Cost Considerations

- “Not much choice, the roads are the only feasible way to reach many destinations.”
- “They still accept cash even though I have a transponder.”
- “They are usually not as packed as I-4, however the cost of taking these toll roads for the beltway does accumulate easily.”
- “Less traffic but more expensive”

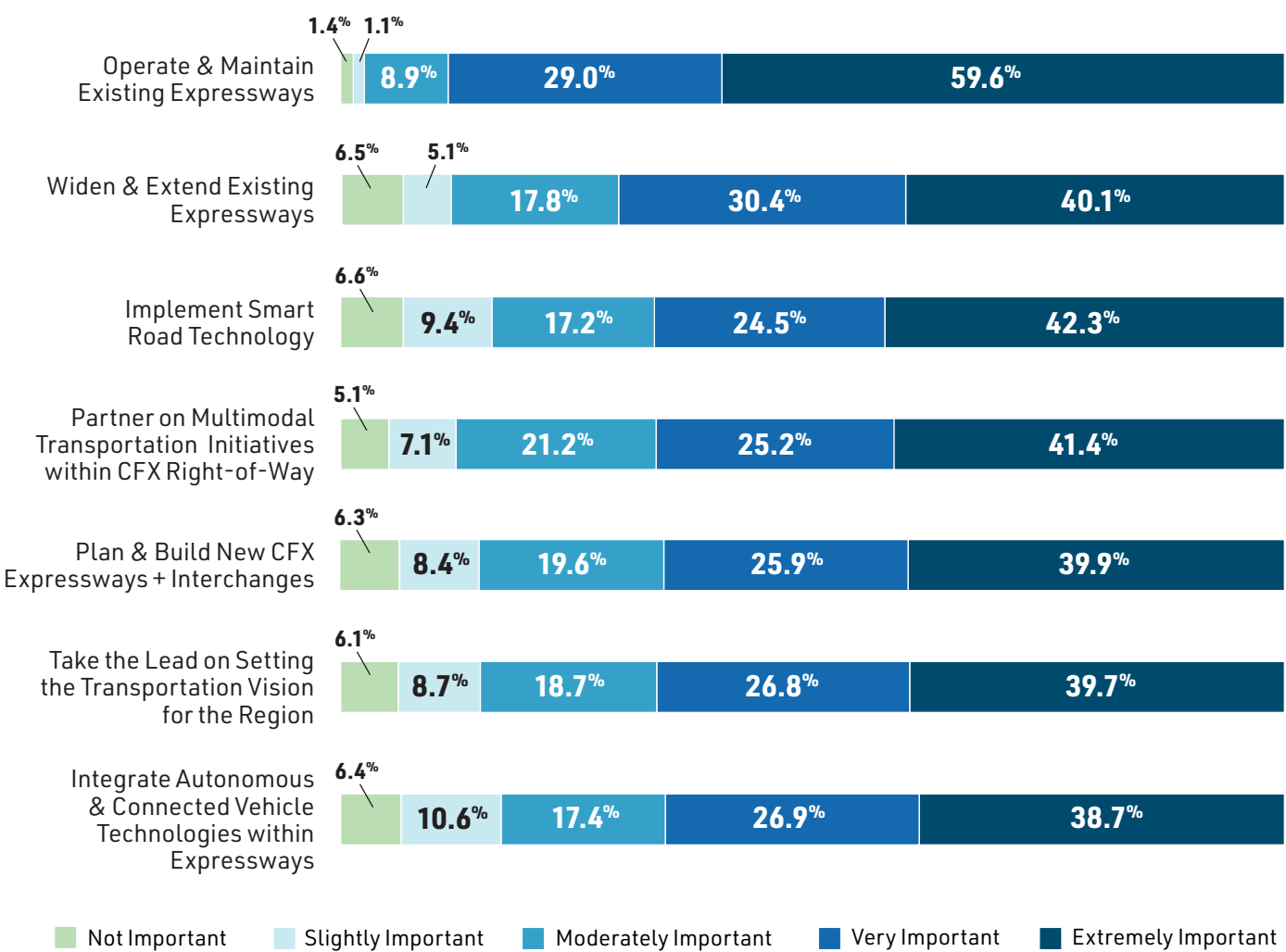
Appreciation for CFX Efforts

- “I give a thumbs up to CFX. I really like what you are doing compared to other cities I have been in around the south and Florida. Should be the team that takes care of all Florida roads.”
- “It is nice to know that funds are used on the CFX roads I normally travel rather than all over the state.”
- “CFX roads are generally in better condition compared to FDOT roads like the Turnpike.”
- “They assist with the fastest routes when using GPS, particularly during rush hours or construction.”
- “For the school district, CFX expressways allow buses on cross county field trips to get across county faster, thus reducing time students need to be on a bus.”

4. CFX performs each function below. How important are each of these functions currently, with one being the least and five being extremely important.



5. How important will each of these functions be in 15 to 25 years, with one being least and five being extremely important?



# Future Challenges

## 6. What do you perceive to be the greatest challenges CFX will face in the next 15-25 years?

Below are the actual comments that reflect the majority of those who expressed their opinion.

“

"As the population in FL continues to grow (and age) our greatest challenge will be alternative transportation options and implementing safety technologies."

"Keeping up with population growth and transportation demands"	"Disruptive technologies"
"Right-of-way cost"	"Integrating smart technology"
"Balancing interests"	"The ability to use automated and nonautomated cars safely"
"Adapting to new vehicle regulations"	"Protecting the environment and wildlife"

### System Planning and Expansion

- "The amount of growth we are seeing in the region versus the length of time for projects to be planned, funded, and completed."
- "Shortage of available land to expand roadways to needed areas, with high-density growth with inadequate infrastructure."
- "Acquiring essential ROW, getting ahead of the accelerated growth curve to accommodate future development, avoid mistakes from the past."
- "Accommodate charging stations in CFX right-of-way, and how much to charge."
- "Doing anything in a timely manner."
- "I believe the greatest challenge will be needing to completely reconstruct/rebuild the existing system as the roadways will likely be at the end of their design life. I recommend looking to the toll highways around the Chicago and Toronto areas. In Chicago, the main lanes are all Portland cement concrete, while the shoulders are asphalt concrete. I believe this maximizes efficiency since it stays smoother for longer and requires far less maintenance over its life cycle. The Toronto-area toll highways are great in that they have overhead gantries at all entry and exit points; this guarantees that drivers always pay the fairest toll. I would venture a guess that revenue is higher in a system like this as people would be more inclined to take a quick trip (1 exit to the next) since you would not need to consider the trade-off of passing through an expensive main gantry."
- "Explosive population growth and roadway usage, changing vehicle technologies, changing infrastructure requirements. All these aspects cost money for CFX to implement."
- "Conflicts with homeowners no one wants the road in their backyard."

### Growth Management

- "The growth will be tremendous. Enabling efficient transportation even though our population will be much greater will be a great challenge."
- "Keeping up with growth and adapting to our energy and transportation future"
- "Keeping pace with the expected population growth."
- "Being able to expand without jeopardizing homeowners and operating in a post-Covid world where workers may not be back in the office five days a week"
- "Keeping up with volume of traffic."
- "Continued growth in the region and the necessity to accommodate both electric vehicles and rail pathways. We don't know what other technology might arise that will also need coordination with our expressways, such as special lanes or exits for autonomous shuttles."
- "Our local politicians and leaders have, for decades, ignored the facts of traffic congestion. Anthony Downs' fundamental law of peak hour highway congestion shows that widening and expanding highways leads to \*MORE\* congestion. The greatest threat is politicians with no transportation background falling into the counter-intuitive trap of falsely believing that widening the expressways will improve traffic. We pay tolls for expressways for fast, efficient travel. The only way to prevent congestion is to implement congestion pricing and provide alternatives to driving. It's literally a scientific fact that widening the expressways is not only \*not\* a traffic solving solution, it also incentivizes suburban/exurban development which is a long-term financial liability for the very communities CFX's board members represent. Does no one on the board know about induced demand, or any other impacts of car-centric planning?"
- "Keeping up with the growth. The people in charge in Osceola county have failed to do that for the most part"

### Public Transportation and Multimodal Initiatives

- "I think the largest challenge for all roadway authorities in the next 15-25 years will be improving rider density on the system via integrated multi-modal network."
- "The desire for an effective public transportation option in Central Florida."
- "Balancing interests in rail projects and other multimodal systems in the right of way – and includes the land for parking or pick-up at stations for bus or rail."

### Environmental and Conservation Concerns

- "Balancing existing natural preserves with the uncontrolled development, which should be diverted as possible to preserve green areas."
- "Building the most cost-effective eco-friendly network of roads that provide multiple routes in case of road shutdowns due to accidents or mother nature."
- "Keeping up with the construction of apartments and managing wildlife. We need a better environmental footprint from CFX."
- "Understanding the impact of sound on the surrounding communities."

### Customer Service, Workforce and Back-Office

- "Recruiting and keeping dynamic, high-tech workforce at state tolling agency with a salary cap."
- "Figuring out how to keep customers, before someone licenses for the toll technology and can serve them better than you – the Microsoft playbook."
- "Staying ahead of the curve b/c transaction management is become more complex."
- "Customer confusion and interoperability dysfunction with third-party apps such as Google, foreign banks, or others entering the market."

CONTINUED

6. What do you perceive to be the greatest challenges CFX will face in the next 15-25 years?

Resiliency, Safety and Renewable Energy

“The ability to use automated and nonautomated cars safely.”

“Safety on crowded high-speed roadways; cost beyond what average commuters can pay.”

“Storms are getting worse, so CFX needs to figure out their role in emergency response to keep the economy moving when the lights go out or a pandemic hit.”

“Charging stations that run on solar energy, would need a backup plan because solar only works half the day and has limited capacity for storage. This is a costly investment. Ask for whom are you making this investment.”

“Being unprepared and somehow liable when your electrified/AV tolling roads don’t work when there are widespread power outages and now wifi/cellular network.”

“Innovation around safety in Work zones.”

“Maybe carpooling will increase.”

“More exits are a must and reverse travel accommodations for storms evacuations is required. Medians will have to have reverse entry points for miles at a time.”

Funding and Financial Considerations

“Added costs of new technologies, third-party services, and power/electricity in future toll rates in a low-wage, service economy.”

“Keeping the use of the expressways affordable for the average citizen.”

“Plan for construction and maintenance costs to skyrocket because you’ll need specialized electrical engineers, data experts, energy gurus, and AV tech specialists to design, build and maintain a road – forget about costs for hacking/cyber, AV liability, and state fee for loss in fuel taxes. Also, you’ll need your own fire department with number of electrical or battery fires on the road, not to mention air-condition needed for the data servers in your right of way.”

Emerging Technology Considerations

“Keeping up with technology, as it its growing and changing so rapidly.”

“The integration of technology into your system to accommodate CV and AV vehicles in the future.”

“Technology transition with conversion to majority EV vehicles on the road.”

“Placing 5-6-7G cell towers within traffic infrastructure (e.g., light posts, signs).”

“Adapting to changes in vehicle technology as well as keeping up with growth in the area while being a responsible environmental neighbor.”

“Inflation, new technologies like flying electric drones, domestic terrorism, cybersecurity, and rising sea levels.”



The term **multimodal** evoked a wide range of associations, primarily related to diverse transportation options, integration, efficiency, and sustainability.

7. What comes to mind when you hear the term multimodal?

Transportation Modes

Many respondents associate multimodal with various modes of transportation, such as trains, buses, cars, bicycles, walking, and even autonomous vehicles. The term is often linked to the idea of multiple transportation options within a single corridor or system.

Integration

Integration is a prevalent theme, reflecting the idea of different transportation modes working together seamlessly. Respondents highlight the importance of integrating various forms of transportation for convenience.

Efficiency and Reduced Congestion

Multimodal transportation can lead to reduced traffic congestion, faster travel times, and a cleaner environment. It is seen as a potential solution to transportation challenges.

Environmental Considerations

Environmentally friendly modes of transportation, such as rail, biking and walking, in relation to multimodal systems. Sustainability is a recurring theme.

Infrastructure and Planning

Urban planning should support multimodal transportation. This includes the creation of dedicated lanes, tails, transit hubs. Cost implications of multimodal transportation and express concerns about government spending and funding allocation.

Technological Advances

Emerging technologies, such as autonomous vehicles, are associated with multimodal transportation. This reflects the evolving nature of transportation.

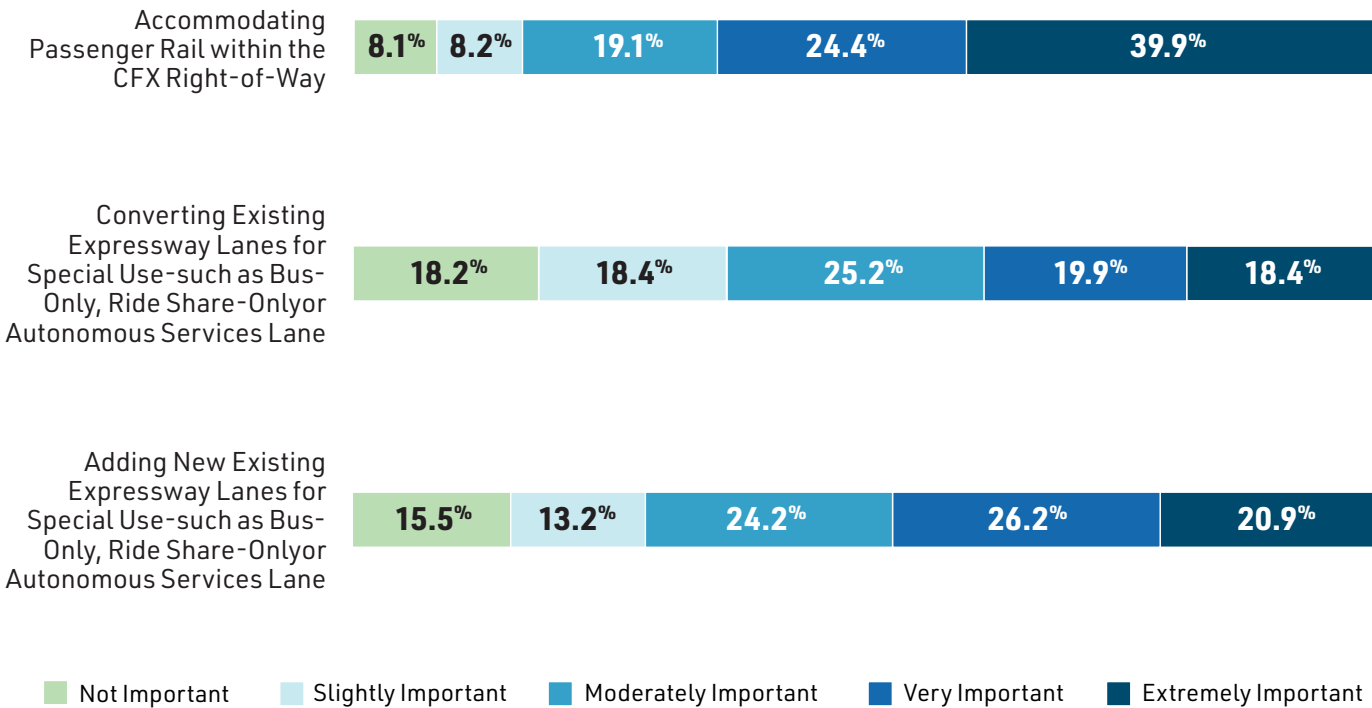
Accessibility and Inclusion

Emphasize the importance of making multimodal transportation accessible to all, including individuals with disabilities and those who choose not to drive.

Skepticism

Express skepticism about the effectiveness or necessity of multimodal transportation initiatives. These respondents often question the allocation of resources.

8. CFX has the authority, through enabling legislation, to consider multimodal corridors within CFX’s right-of-way. Which of the following multimodal accommodations is important for CFX to pursue in the next 15 to 25 years?



Here are the key themes from those who added additional comments.

Public Transit Integration

A preference for integrating public transit options, such as buses, trains, and light rail, into the system. They emphasize the importance of convenient and efficient mass transit solutions.

Multi-Use Trails

The development of multi-use trails, often separated from roadways for safety, is suggested as a means of accommodating pedestrians, cyclists, and recreational users. Several responses highlight the need for dedicated bike trails or protected bike facilities to promote cycling as a viable mode of transportation.

HOV Lanes

Some advocate for the addition of HOV lanes or high-occupancy toll (HOT) lanes to provide faster and more efficient options for BRT, AV, Cargo, Emergency Response Vehicles or Cargo/Trucks.

Safety Improvements

Improving pedestrian safety at on/off ramps and enhancing emergency response and clearance are mentioned as important considerations.

Technology (ITS)

Suggestions include investing in technology for improved traffic management, travel time reliability, and real-time information for commuters. Respondents mention the need for notification systems and special exits for autonomous shuttles in emergency situations.

Environmental Considerations

Express concerns about environmental impacts, such as constructing toll roads through wetlands and wildlife corridors, and advocate for greenways and native landscaping.

Off-System Connectivity

Suggest creating connectivity between the transportation system and off-system facilities, such as charging stations and ride-share hubs. The installation of EV charging stations is mentioned multiple times, reflecting the growing interest in electric vehicles and the need for charging infrastructure.

## ALL-ELECTRONIC TOLLING (AET)

Tolling agencies across the country are converting to All-Electronic Tolling (AET). CFX is exploring converting its expressways to AET.

**What is All-Electronic Tolling?**

It is a cashless, electronic toll collection system. On expressways equipped with AET, drivers do not stop to pay tolls. Instead, tolls are collected through electronic transponders (E-PASS) and video tolling (Pay By Plate). The Wekiva Parkway and Poinciana Parkway are examples of CFX expressways that collect tolls via an AET system.

### 9. What do you perceive to be the pros and cons associated with converting CFX’s entire 125-mile expressway system to All-Electronic Tolling?

PRO

#### Traffic Flow Improvement

- “Eliminate traffic caused by toll booths.”
- “Faster through toll booths.”
- “Less built infrastructure so its faster.”
- “Definitely the way to go!! need to make transponders readily available to everyone because no stopping means faster travel time and less time on the road.”
- “Less liability for accidents or injuries at toll booths.”

#### Cost Savings

- “Eliminate unnecessary maintenance costs with toll booths.”
- “Cheaper to build new highways this way.”
- “Better accounting and collection abilities.”

#### Traveler Benefits

- “Convenient for residents and in-state guests.”
- “It’s the wave of the future and needs to happen”

#### Efficiency and Convenience

- “Europe functions just fine without cash or physical attendants on their toll roads, the US can do the same.”
- “I have been an E-PASS customer since I moved to Orlando in 2000, it is so convenient and reliable. I don’t know why people don’t have E-PASS and are still paying cash.”
- “Consider adding prepaid for visitors, who can download an app prepay either via limit per day/week and get a refund or remain funds after their stay minus associated costs.”
- “It’s like the ATM networks... use your car anywhere. Use your toll transponder anywhere when you travel.”

#### Environmental Impact

- “Reduce the footprint and operating cost.”
- “Less fossil fuel consumption.”
- “Better environmentally as cars don’t have to accelerate or decelerate.”

CON

#### Access and Inclusivity

- “Some drivers do not currently have the technology to access the system.”
- “Access for those who have limited banking options or access to transponders.”
- “Low-income individuals may be hurt by not being able to receive discounts.”
- “Would need more stations for people without banking accounts or credit cards to replenish their accounts.”
- “Why are we doing this here? What about the hotel workers? AET seems to be limiting options. It seems to only serve CFX and not the people paying - customers.”

#### Visitor Experience

- “Difficulty for tourists who may not be sure if they paid the toll correctly.”
- “Visitors don’t have a transponder and will have to pay a lot more.”
- “Effect for tourists and visitors not familiar with the CFX.”
- “Visitors don’t have a transponder and will have to pay a lot more. Ask if this is the Orlando experience welcoming our visitors?”

#### Job Loss

- “Loss of jobs for toll workers.”
- “I’m concerned about putting people out of jobs.”
- “Who will greet visitors with a smile and directions? You can’t put a number to that when our economy is based on people traveling here – hello pandemic.”

#### Privacy and Surveillance Concerns

- “PBP (Pay by Plate) is video, and it could deter usage.”
- “Concerns about technology being perceived as ‘Big Brother’.”
- “Some people are more privacy focused and may like using cash.”

#### Technical Challenges and Reliability

- “Technology glitches.”
- “Make sure it can’t be hacked.”
- “What happens when the system crashes?”

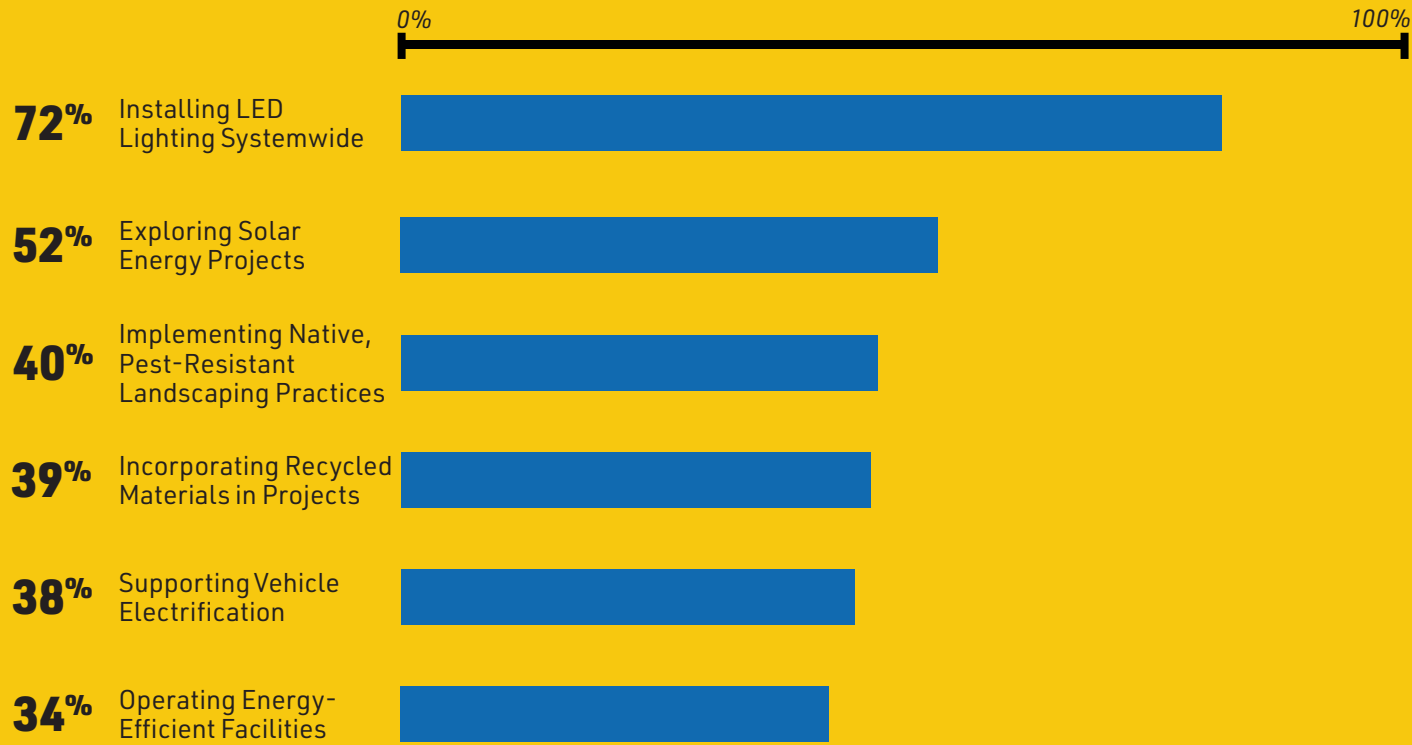
#### Cost and Implementation Challenges

- “Replacing people with technology may actually costs more to install, update and operate.”
- “Think the biggest challenge will be educating our tourists who use these roads.”
- “This will build fees, as people will likely fall behind on payment (not everyone has an E-Pass or SunPass!) All electronic means bills being lost in the mail, looked over, thrown away, forgotten.”
- “Higher chances of tolls not being paid.”
- “Cost of collecting from massive number of out of state scofflaws.”
- “Expect much more billing errors and payment issues with pay-by-plate.”

10. As CFX prepares for future growth, which of the following congestion management strategies do you believe CFX should explore? Please select the top three (3).



11. Which sustainability practices do you consider to be CFX’s highest priority? Please select the top three (3). Any additional input in the comments is appreciated.



Below are the actual comments that reflect the majority of those who expressed their opinion.

“ Quite frankly, all of the six choices should be part of a comprehensive approach to sustainability!

“ Understanding how native wildlife and ecosystems are affected when ecosystems are disrupted by widening roads, new roads, etc.

“ Reducing emissions by encouraging HOV’s by reducing tolls for vehicles with multiple passengers.

“ Use of roundabouts where feasible on ramp terminals to get traffic moving, instead of stopping at lights.

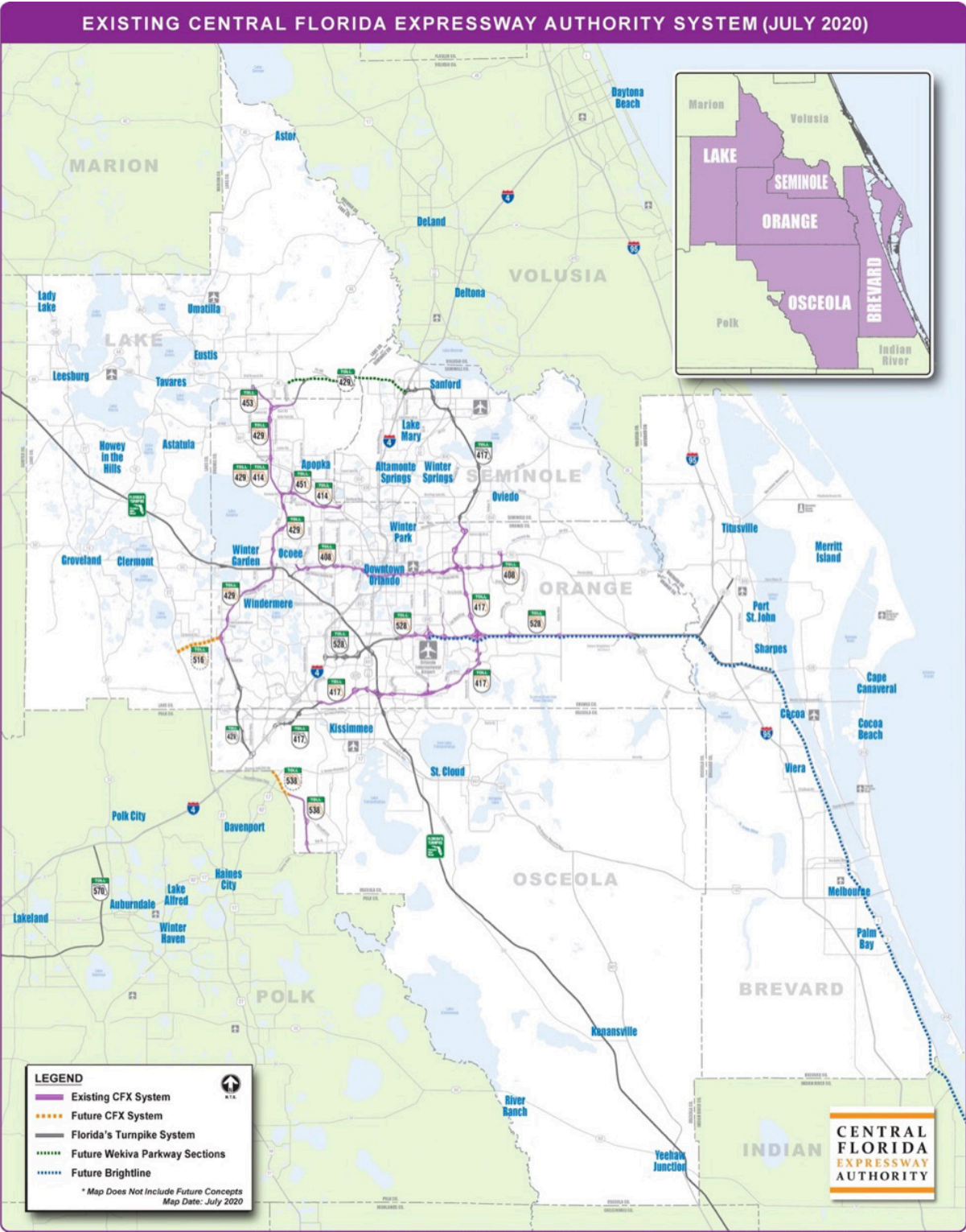
“ You only have so much right-of-way. My recommendation would be to let solar energy take up other space than CFX ROW

“ All of the above. add water quality.

“ The first step to solar is energy conservation and efficiency. Supporting vehicle electrification should apply to CFX and CFX supporting it in the community through incentives and infrastructure (charging stations).

Previous Master Plans have helped identify regional transportation priorities within CFX's jurisdictional boundaries. The Wekiva Parkway and the I-4/SR 408 Interchange are two examples.

Below is a map of the Central Florida region. Please take a few minutes and share what you consider to be the top transportation needs for the region.



FUTURE TRANSPORTATION NEEDS AND PRIORITIES BY COUNTY

**ORANGE COUNTY**

“ Integration of strategy and vision among all of the region's transportation agencies.

“ Work around the purchase of remaining areas of the 528 and keep the lanes open to the I Drive Corridor. The easing of traffic congestion on the 408.

“ Finding a way to connect 429, 417 and 538 in southwest Orange to relive traffic woes from I-4 and the Champions Gate/4 Corners area. Also using the 408 corridor and Rig of Way for Light Rail or Bus Rapid Transit to connect West Orange to UCF in an efficient manner.

“ Thought on improving rider density. Partner with Lynx to provide a high-capacity transfer station at the airport/Brightline hub to offer high speed bus service around the CFX network to key leisure/work/population centers on the network. Tie this into my previous suggestion for off-system connectivity enhancement and people will begin to have true end-to-end transportation options that can replace car ownership.

“ Extend the Beachline (528) to the west and potentially connect to the 429 to alleviate the congestion and traffic concerns in the areas through and south of Windermere to developing areas in the west.

“ Better East / West Road that goes from Apopka to Oviedo through Altamonte and Winter Springs. Basically a 408 more North.

“ Using HOT lanes along 408 and other congested sections of the toll system would help increase revenue and allow for a faster commute time for those willing to pay extra

“ Expansion of multimodal uses in the CFX ROW, and expansion of the 408, both East and West

“ First extending SR 408 to U.S. 27 then extending SR 408 East to U.S. 1. second Make John Young Parkway into an 8-lane expressway from U.S. 192 extending to U.S. 441/SR 436 Interchange. Third an Expressway extending from SR 434/U.S. 441 to SR 426 Just west of the SR 426/SR 417 interchange. Lastly, Extend SR 429 from I-4 making a beltway around the Kissimmee/ Poinciana/ST. Cloud area ending at SR 417 south of the SR 417/ SR 528 Interchange. Hope this master plan idea goes into action one day!

“ With UCF and all the new development, much being high density, we need more connectivity in East Orlando to downtown campus and Lake Nona. In addition, from 417 to 95 north of 50 as well as more options than 50 to get to East Orlando, Wedgefield and the SpaceCoast.

“ NW Osceola County is the biggest issue I have seen. with the growth in residential development down there, traffic congestion has become severe.

“ East-west connectivity between the proposed SR516 (Horizon West) and current western terminus of SR528 (Dr. Phillips area) is a real struggle. Although there is a planned connector road to help bridge the gap, the shortest path through this area routes through the Windermere town center roundabout and is obviously strained over capacity. Although this would likely be an expensive project, I believe there would be a lot of potential for toll revenue from people desperately seeking a faster alternative to get from the rapidly expanding residential areas on the emerging west side of Orlando to the region’s Attractions hub, downtown, and beyond. (2) Upgrading the surface street gap on SR414 between the toll highway portion and I-4. An elevated viaduct supported in the median of the current roadway with limited access (potentially only at either end of the gap) would be enough - 2 lanes each direction with narrow inside shoulders could suffice.

“ It would also be nice if the 408 had collector distributor lanes between the 417 and rouse rd. There is a lot of quick merging especially from 417N to 408E at dean. Also, the interchanges at 417/narcoossee and the 528 at Narcoossee would be prime locations for DDI (diverging diamond) interchanges of some sort. The interchange at 528/OTB/turnpike also needs to be reworked into a stack of some sort (yes that’s FTE but lead by bringing it up) it would also be nice to have another road choice to get to St Cloud from Lake Nona/the 528 (other than Narcoossee or the turnpike).

“ Extend 414 east to I4 or all the way to 417. Work to increase density growth not sprawl. Bike trails in ROW or adjacent like Neighborhood Lakes Trail with any new project and along 414. Train connecting Sanford Airport and MCO. Better Sunrail connection to MCO.

“ Widen 528 from Narcossee to I-95 without lane drops. Full interchange at Turnpike and 528 without engaging with OBT traffic - to westbound 528 and from eastbound 528 to turnpike.

“ Expansion of Osceola Parkway to the Sunbridge area with expansion to I-95. I feel there needs to be additional hi capacity roadways connecting to I-95 and Space Coast. Either from 408, 520 or other routes.

“ Southeastern Orange County has expanded beyond is travel capacity. Lake Nona has grown too fast.

“ Some of these plans require adding Polk and Volusia Counties to the CFX system. First, Acquire all of SR 414 and extend it eastward from US 17/92 to the intersection between Tuskawilla Road and SR 426 Second Extend SR 408 Eastward parallel to SR 50 (1 mile apart) to US 1. Then extend SR 408 westward to US 27 to support the local area. Third, have an expressway parallel US 27 east from the Polk/Lake County line south to the Highlands/Lake County line. Fourth an expressway to parallel or have within the median US 441 from SR 44 (Mt. Dora) to US 27 in Leesburg. Fifth, a partial southeastern Beltway from SR 538 (Polk/Osceola County Line) to SR 570 south of Lakeland, creating an outwards beltway surrounding Davenport, Haines City, Lake Alfred, Auburndale, and Winter Haven. Sixth turn SR 423/CR 423 into a toll road extending from US 192 and US 17/92 to the Lee Road and US 441 intersection. the goal is to relieve US 441 of traffic. it should have 6-8 lanes (3-4 in each direction).

“ Brightline Train is long overdue! An alternative to I-95 and Turnpike to SF is necessary. I live in Downtown Orlando and use SR 408, SR 429, SR 414 and SR 528 frequently - improvements to those facilities as needed is very important to me.

“ Recent attention on BELTWAY? that’s NOT a beltway. Where’s the connection on south end? Have tried using BELTWAY? however going on to I-4 is a deal breaker. Would not be trying that anymore in the future.

“ I think the Osceola Expressway Extension needs to connect all the way to I-95 as much of our future growth will be in NE Osceola, E Orange, and N Brevard County’s. The primary ring comprised of the 417 & the 429 needs to be fully connected and just become one road similar to New Circle Road in Lexington, KY or to the Interstate Rings around Atlanta. In a perfect world we would begin constructing an outer ring beyond the current 417/429 system into Volusia, North Lake, South Lake, Polk, Osceola and Brevard County’s. If it can be rail instead of road that would be great. If it could be both that would be better. But we have to consider the last mile of travel, especially because of our low wage economy and buses seem to be the best way to help this.

“ Residents of South Kissimmee like Poinciana should get a highway that gets them connected to the Turnpike and 417 as living in that area is a living hell. I know because I used to live there. 417 thankfully is getting the updated it so desperately needed, it’s just sad that it took so long. Hopefully we’re planning for 2045 now, not waiting till 2044 to start on those updates. Every other main highway like the 408, 429 and I-4 have the update it so desperately needed. To complete the beltway 417 in South Seminole County needs to be updated now not in 2025. As far as future vision, I’d like to see a train route around that same Central Florida Beltway.....this will ensure future and current residents have the means to move around without the need to have more cars on the road.

“ The population growth in Osceola County has increased the need to avoid the I-4 commute, between/from the SR 417 and the SR 429 Interchanges, all the way to US 27. Normal delay times are 10-20 mins. I-4 is a FDOT roadway, but there’s need to be some inter agency coordination on how to improve this growing delay period. I believe the Interchanges spacing, entrance & exit movements, and pure capacities issues are creating this delay. Interchange modifications, connection points, CD roads, and/or alternative alignments should be considered for this stretch of roadway.

“ Supporting rail projects like Brightline using existing usable ROW is the most important need moving forward. With incredible population growth, Highway expansion is necessary but cannot be the only solution.

“ Support the implementation of high-speed rail alongside the highways, and have them accessible to get to the airports, Convention Center, and theme park areas, ie; Williamsburg for Sea World etc.

“ Multimodal facilities system-wide/ Park-n-rides, bus only lanes, bus stations along expressways (see LA Metro Silver Line as example)

“ As growth allows, take the same approach as the New Jersey Turnpike- create sperate lanes for cars and trucks (semi’s).

“ Light rail and long-distance rail in combination with a beltway and direct connectors between 417 and Orlando Sanford Airport (SFB) and from 408 to Orlando International Airport (MCO)

FUTURE TRANSPORTATION NEEDS AND PRIORITIES BY COUNTY



OSCEOLA COUNTY

“ Since Osceola County is the fastest growing county in the State, I feel a big focus needs to be there before all the anticipated development.

“ Osceola County has no way out! To the North is gridlock and no roads exist in the Southern part of the county, yet we keep building houses.

“ Relief on Narcoossee Road, Boggy Creek Road area

“ I believe we need to focus on more mass transit/multimodal options to prepare for growth. The toll roads are useful for those of us with cars and decent jobs to pay for the tolls, but not everyone is privileged enough to commute that way. I'd like to see more reliable bus/bike lanes/rails in all corners of central Florida.

“ The Poinciana Area. The rural areas south of lake Toho will be rapidly developed in the near future, we need the roads in place to accommodate and not choke our local roads. Extending the Poinciana Parkway to I-4 and then to the Florida Turnpike is ESSENTIAL!

“ Top regional transportation needs in central Florida I consider to be the congestion in greater Orlando area along with southwest Orlando towards Disney and south Orlando into north Osceola County towards Kissimmee. A lot of back-and-forth traffic happens here and most congestion seems to be concentrated in these areas. Some due to merging of multiple highways, overpopulation for the roads available, and bad roadway planning. I think roads, stop lights, and all elements need to be further streamlined to ease traffic. Even if that means work on roads outside of the CFX scope.

“ The majority of the Growth will occur outside the Beltway along the turnpike corridor to the West and NW in Lake County and SE to Osceola County. Parallel and widened routes MUST be in development now, not after the growth has occurred. 2030 is only 9 years away. Due to regulatory and social delays even, Future Systems envisioned today are 15 - 20 years behind the demand and will experience capacity flow at their Opening dates. Planning is about addressing Future needs not simply addressing current failings.

“ As a Poinciana resident with few roads leading out of the area, we need poinciana pkwy finished to I4 and the Southport connector as fast as possible.

“ Osceola County 2040 Plan. Extend Poinciana Parkway as per purchase agreement.

“ Orange Co rd 13 to Holopaw. SR 417 to US 192 east of St Cloud. US 441 E W Route connecting Holopaw to SR 538 south of Lake Toho.

“ Please please please widen all of Narcoossee road and provide some alternative roads for travel! It's insane and the building is getting worse, meaning that it's getting more and more backed up every day.

“ Boggy Creek east/west. (Not417). The 192 I-4 area toward Tampa Celebration to 27. Also from Harmony area to Davenport-Lakeland areas

“ I've been in Orlando since 1987. I've lived in Winter Park, Azalea Park, then Rio Pinar, vista Lakes and now Narcoossee/Saint Cloud. I would consider tying the Saint Cloud, Kissimmee, and Lake Nona areas. This area is exploding with expansion and the roads can't handle it. 417 is good but going around Lake Tohopeakalega is a problem for Narcoossee road. Lake Nona is still growing at a phenomenal rate and route 15 is also a commercial route that adds to the congestion. CFX can help relieve that problem.

“ Orange/Osceola County - Urgent need for transportation infrastructure in southeast Orange County. Lake Nona and environs is expanding at an exponential rate, and it would be nice to have better access to the expressways (i.e., SR 417, SR 91) - with minimal impacts to Split Oak. Better access (options) from Orlando to the Space Coast and Tampa via Brightline would also be great for residents and tourists.

“ Train travel to MCO.

“ I'm conflicted on this. Living on Nova Rd in Osceola County. I want something but I really do not want something. I think it would be best just to build a connection from Harmony to the turnpike. Have FDOT widen the turnpike from the Canoe Creek Plaza to Osceola Parkway to handle the traffic.

“ Between 417 to US192. Narcoossee road has way too much traffic and desperately needs an alternative. Literally thousands of houses being built in Saint Cloud and one road to get to the highway.

“ Better transportation options that span between Disney parks & Lakeland. The stretch between Orlando, Osceola and Polk only has interstate 4. An alternative option would be very helpful. Where 429 merges into Interstate 4 is AWFUL.

“ Orange-Osceola transportation needs for Lake Nona; Sunbridge and the Narcoossee Road Corridor. It's a crisis in the making and the Osceola Parkway WILL NOT solve it as it is not a North-South Road. The area needs another North/South Road east of Narcoossee road.

“ Provide roads in the area south of St Cloud from the turnpike over to Poinciana connecting to the toll road there and complete it to connect to I4 and 429 that will make a complete circle to the south of the metropolitan center!

“ Better, more reliable public transportation on Central Florida 2) Using solar energy and converting to more environmentally friendly techniques 3) Keeping up with growth and development in the eastern St. Cloud/ Lake Nona, out to Melbourne growth and development.

“ Need to have an extension from the 417 connecting to 192 near Moss Park Road, essentially allowing those that live in Harmony/Saint Cloud will have an exit point other than Narcoossee Road.

“ Connector from Innovation Way on 528 to 192. Traffic on Narcoossee Rd is not OK with all the new building. PLEASE do research on travel times during rush hour.

“ 417 and 429 lake Nona and Windermere these areas are growing faster than anywhere else let's get these areas sorted ASAP.

“ Osceola county has massive growth. We need a turnpike entrance/exit at Deer Run where they originally considered putting it. The exit at Kissimmee Park Road is awful and I am not sure why they would put one in at Nolte which is right there. We also need the turnpike widened to 3 lanes at least from Osceola Parkway to Kissimmee Park Road.

“ Obviously, every government organization seems to want to increase revenue and wants everything built withing their boundaries. Having said, we also need to consider expanding in areas away from major metropolitan hubs. That would distribute future growth in areas that not only need it creating opportunities for surrounding communities, but also alleviate the horrendous congestion that exists now and will only increase as population grows. Protect the existing green and natural areas to prevent what happens in the big metropolises where people have to travel away, sometimes far away from the city, to enjoy nature.

FUTURE TRANSPORTATION NEEDS AND PRIORITIES BY COUNTY



LAKE COUNTY

“ The extension off 429 to Lake County is a great move. Being able to find a location that could serve as a multi-modal option would be a real asset. We at Valencia College are appreciative of this option.

“ I believe that building the 429 connector to US-27, expanding the 408 eastward to I-95, and expanding the 429 south to 538 are the most important regional transportation expansion needs. The 429 connector to US-27 will connect metro Orlando to the fast growing city of Clermont. Expanding the 408 eastward towards I-95 will relieve the 528 and provide a direct connection from Downtown Orlando to port Canaveral. Connecting the 429 to 538 will provide the fast-growing city of Poinciana a connection to I-4.

“ The 516 into Lake County. There is currently no easy way to get from Winter Garden to Clermont.

“ Northern extension of the expressways on State Road 46 interchange in the Sorrento area.

“ The only way to cross the 429/27 gap is either 192 or 50 and some small roads in between. A better connection between orange and lake is essential.

“ Lake County is lacking with any connection projects. Anything that connects the Villages to I4 in Northern Lake County will help. Maybe connect 429 or 453 to the turnpike via the 44 route thru Eustis?

“ West Orange County, southern lake county needs some serious help

“ The future 516 from 27 to 429 will be very well received by Lake County residents. The Brightline is a major step forward.

“ I literally don't know where to begin. The exchanges from the turnpike to the 429 and 408 are a nightmare during peak hours as are the exchanges with I-4. You built a one lane ramp from I4 to the 408 Westbound for example. SW areas of Orange, Lake, and Osceola are growing at a record pace. They need ways to get to and utilize the existing expressways and turnpike system.

“ I would suggest considering talking the 408 to the east coast. I would suggest you consider taking the 516 and connecting it to the 570. One day Lake County will be a regional player and we should be looking at it now for future toll roads.

“ Lake County is lacking with any connection projects. Anything that connects the Villages to I4 in Northern Lake County will help. Maybe connect 429 or 453 to the turnpike via the 44 route thru Eustis?

“ Better East / West Road that goes from Apopka to Oviedo through Altamonte and Winter Springs. Basically a 408 more North.

“ The only way to cross the 429/27 gap is either 192 or 50 and some small roads in between. A better connection between orange and lake is essential.

“ Complete beltway loop around Orlando. Extend 429 further north to Eustis/ Umatilla.

“ I literally don't know where to begin. The exchanges from the turnpike to the 429 and 408 are a nightmare during peak hours as are the exchanges with I-4. You built a one lane ramp from I4 to the 408 Westbound for example. SW areas of Orange, Lake, and Osceola are growing at a record pace. They need ways to get to and utilize the existing expressways and turnpike system.

“ 408 needs to be expanded west to Clermont and east to Titusville Leesburg to Groveland ... circle route to connect with existing loops.

“ Better/more connections to Clermont/South Lake and Four Corners

“ A bypass that connects I-4 and I-95 west to I-75 thus traversing East/West without going through Orlando. Make an Expressway run where SR 40 connects Ormond Beach and Ocala - also a spur south of there on I-4. Maybe DeLand or Deltona - anything to by-pass Orlando.

FUTURE TRANSPORTATION NEEDS AND PRIORITIES BY COUNTY



SEMINOLE COUNTY

SR 429 intersection on I-4 needs a direct connection to SR 538. In the future, SR 538 can go eastwards into the Florida Turnpike and eventually make its way into SR 417 to make the beltway more circular in the southern region of Orlando.

Local to the City of Altamonte where I work - making the connection on SR 414 between SR 434 and SR 429 as an express lane option (which is currently being studied). As a region, finishing the Wekiva Pkwy.

Completion of the Wekiva Parkway and additional connector from the 429 to the Florida Turnpike between Lake Apopka and Little Lake Harris.

A direct connection to the Orlando Sanford International Airport and expansion towards Daytona Beach.

I would like to see additional lanes or maybe a reversible lane on the 429 between Apopka 414 and Winter Garden.

Focus on safety. The CFX needs to make sure that roads are kept in good condition and also expand deteriorating roads.

Reduce traffic congestion/crashes; improve safety. Provide infrastructure for connected and autonomous vehicles.

Connect the 429 thru Astatula and Howey in the Hills or Eustis and Leesburg to the Florida Turnpike to provide easy access for residents of Seminole and Volusia County a way to get to I-75 without having to drive many miles south to the current turnpike interchange and then north again. Very time consuming and fuel wasting.

Florida being a tourist state - FDOT and Government Agencies/ Authorities should be investing heavily into methodologies, technologies and infrastructure that fully support and enhance the tourism experience. Florida has been lagging and dragging its feet when it to the betterment and management of tourist foot traffic and has gained the title as being a dangerous and deadly state for pedestrian foot traffic. The implementation of a better transportation infrastructure which includes a better, cleaner and environmentally friendly metropolitan mass transit systems are woefully overdue here, which includes technologies such as localized and high-speed lite rail systems and services to and from tourist attractions, theme parks etc.

Reduce traffic congestion/crashes; improve safety. Provide infrastructure for connected and autonomous vehicles.

Multimodal and environmental priorities. I think we need more expansive rail to take away from the amount of cars on the road.

Expansion of the network to Daytona, New Smyrna, theme parks, down I4 toward Tampa

Getting from Oviedo to I-95 without having to get on I-4 or go out of the way on Colonial/520.

FUTURE TRANSPORTATION NEEDS AND PRIORITIES BY COUNTY



BREVARD COUNTY

528 West to 27 would be nice; an expressway from Melbourne to Orlando would be a wish.

More options in Osceola Better connectivity between Osceola and Brevard - More options to the coast than just 528.

SR 528 Expansion and Safety! There are always crashes on SR 528 and when one happens a second one is sure to occur. CFX needs to invest in technology to help mitigate crashes on the SR 528. add more message signs, alert flashers for crashes, roadway lights, or any other technology to help with speed and crash mitigation. This must be a priority!

One regional need is the acquisition of the complete 528 corridor to have it all under one agency and to ensure multimodal options can exist for the entire route. This would include Brevard County into the system in a real way.

Expanding existing facilities of SR 520, SR 528 and US 192 to accommodate projected traffic volumes while adding a new connection north/south from the Lake Nona area south to US 192 and north to SR 520.

Extending the 408 East to Titusville is a priority. Widening current 408 from its eastern start to downtown.

408 Trains! More alternatives to automobile transportation. Bike Trails and fixed-rail systems.

More options to get to the coast. E.g. an extension of 408 to the coast.

Connectivity for Bithlo to the 408, going to the coast for space coast employees.

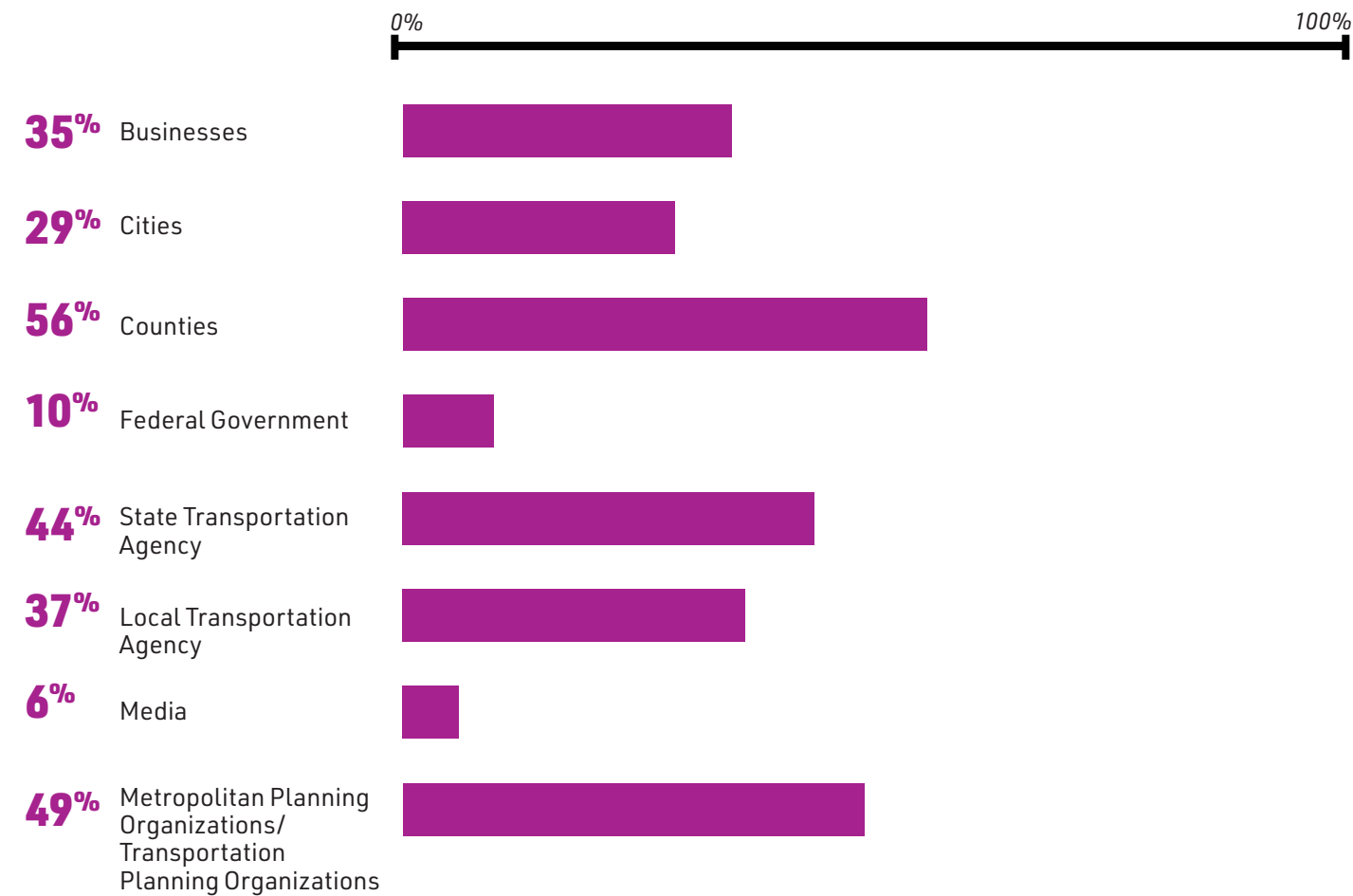
St Cloud to Polk City corridor Airport to Cocoa/KSC corridor.

A freeway (toll road) connection to South Brevard.

Express Lane to I95. We need to add much more routes to accommodate more travel options where these routes are not located.

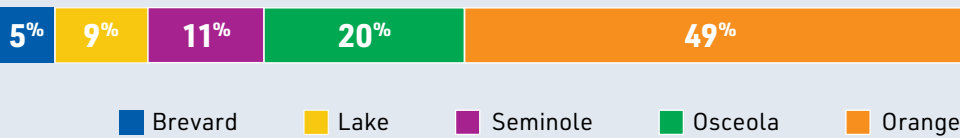
Better connectivity to Brevard County.

13. Which organizations do you consider the most effective at influencing transportation policy at a local level? Please select the top three (3).

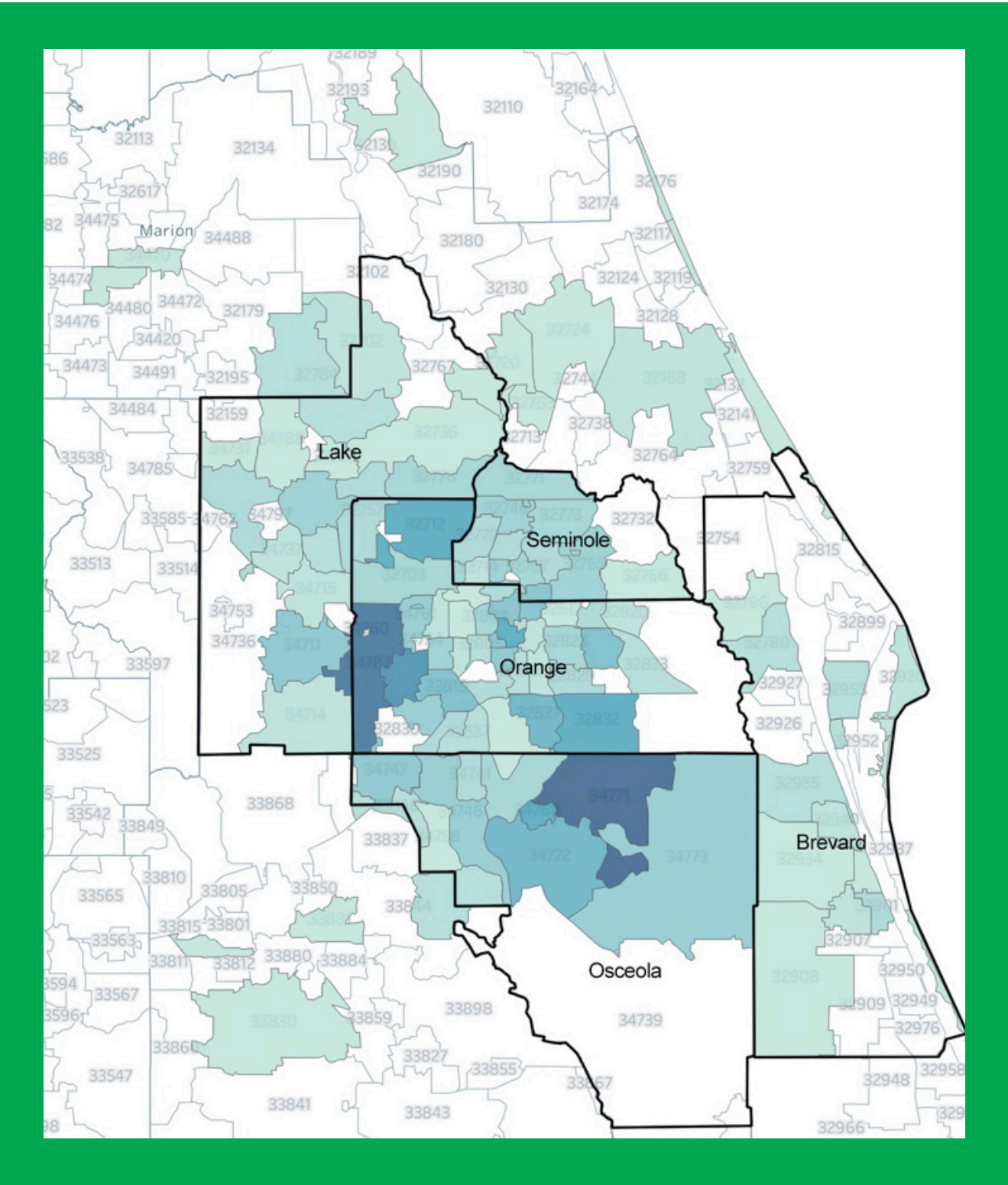


TELL US ABOUT YOURSELF

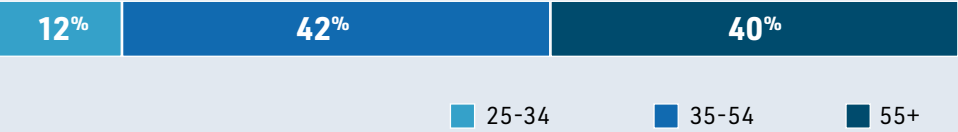
14. In which county do you reside?



15. What is your zip code?



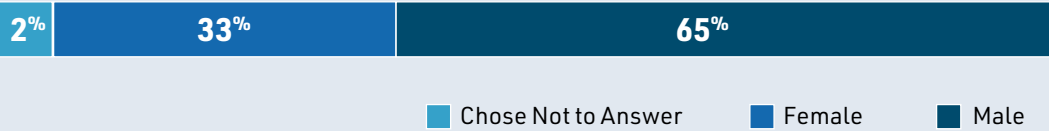
16. Age Range:



17. From the list below, which best describes where you work?



18. Gender:



# Transportation Agency Feedback

ORGANIZATION NAME | **Florida’s Turnpike Enterprise**

Audience: Technical Staff | Date: February 16, 2021

ATTENDEES

**Central Florida Expressway Authority**  
Will Hawthorne, P.E. | CFX, Director of Engineering  
Jonathan Williamson, AICP | Dewberry, Senior Project Manager  
Merissa Battle | Dewberry, Transportation Planner

**Florida’s Turnpike Enterprise (FTE)**  
Jacki Churchill, FTE | Chief Financial Officer  
Christina Colon, P.E., FTE | Director of Transportation Development  
Josiah Barnet, FTE | Project Manager  
Maria Connolly, FTE | Director of Transportation Operations

DISCUSSION HIGHLIGHTS

FTE acknowledged several noteworthy projects on the map and expressed gratitude for seeking their input. Additionally, they appreciated CFX’s coordination on the SR 429 widenings and resurfacings, as well as the FTE PD&E project for widening the Turnpike from SR 408 to SR 50.

FUTURE CANDIDATE PROJECTS

Tell us about the Sunbridge Parkway?  
Sunbridge Parkway is a developer-driven roadway.

Can you provide an estimated timeline for these candidate projects?  
The timeline is highly dependent on future growth.

Is there an interchange with SR 528 planned for Project #6 (Corridor I)?  
Yes, there is an interchange planned.

Can you provide information on where Projects #5 and 5A will cross the Turnpike?  
Both projects are currently undergoing a PD&E study, and CFX will coordinate with FTE regarding the location of a future interchange.

FTE shared they have an upcoming PD&E for widenings in the Yeehaw Junction and Kissimmee Park Road areas. And, FTE has not yet explored a connection from the Turnpike to I-95.

ORGANIZATION NAME | **Florida Department of Transportation (FDOT) District 5**

**Audience:** Stakeholder | **Date:** February 16, 2021

ATTENDEES

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer Glenn Pressimone, P.E.   CFX, Chief of Infrastructure	<b>Florida Department of Transportation (FDOT)</b> Jared Perdue   FDOT, District 5 Secretary Loreen Bobo   FDOT, Director of Transportation Development Anna Taylor   FDOT, Government Affairs Kellie Smith   FDOT, Planning Manager
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DISCUSSION HIGHLIGHTS

With technology changing and resources scarce, CFX and FDOT District 5 must develop a cohesive strategy and ongoing partnership.

The group discussed mobility as a service.

Supports CFX as a mobility choice

ORGANIZATION NAME | **FDOT, District 5 Staff**

**Audience:** Technical Staff | **Date:** February 17, 2021

ATTENDEES

<b>Central Florida Expressway Authority</b> Glenn Pressimone, P.E.   CFX, Chief of Infrastructure Will Hawthorne, P.E.   CFX, Director of Engineering Emily Brown   CFX, Manager of Public Affairs Jonathan Williamson, AICP   Dewberry, Senior Project Manager Merissa Battle   Dewberry, Transportation Planner	<b>Florida Department of Transportation (FDOT) District 5</b> Kellie Smith   FDOT District 5, Planning and Environmental Management Administrator Suraj Pamulapati, P.E.   FDOT District 5, Interchange and Traffic Engineering Supervisor Heather Garcia   FDOT District 5, Transportation Planning Manager Steve Shams, AICP   FDOT District 5, Systems Planning Supervisor Jason Learned, AICP   FDOT District 5, District Traffic Model Coordinator William “Bill” Walsh   FDOT District 5, Environmental Manager
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DISCUSSION HIGHLIGHTS

FUTURE CANDIDATE PROJECTS

*Project #1 (interchange at Woodbury Road on SR 408): Is it intended to divert traffic from Alafaya Trail?*  
Yes, the project is associated with the SR 408 Eastern Extension. The corridor currently experiences significant commercial activity. The interchange would help alleviate residential traffic from Alafaya Trail and SR 50.

*Project #2 (interchange at Clarcona Road on SR 429): Can you provide more details?*  
The proposed interchange is located on SR 414 at Clarcona Road. Considering the growth of Apopka, we anticipate a potential need for this interchange in the future.

*Estimated timelines for any of the projects?*  
Currently, project timelines are not available as many of them are still being evaluated and are contingent upon future growth.

Update on State Road 50: CFX completed its SR 408 Eastern Extension PD&E study but did not proceed due to FTE’s completion of the PD&E study for the SR 50/Colonial Parkway. We understand that FTE’s study determined the Colonial Parkway option to be financially unviable, and FTE will not be moving forward with it.

ORGANIZATION NAME | **Greater Orlando Aviation Authority (GOAA)**

**Audience:** Stakeholder | **Date:** November 2, 2020

**ATTENDEES**

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Greater Orlando Aviation Authority (GOAA)</b> Phil Brown   GOAA, CEO Bradley Friel   GOAA, Director of Planning
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**DISCUSSION HIGHLIGHTS**

A large percentage of Orlando International Airport (OIA) employees are Brevard County residents.

OIA’s Intermodal Terminal (Terminal C) has reservations for Brightline, SunRail, and an undetermined mode – possibly automated and connected vehicles.

The Osceola Parkway Extension is an important connection into OIA.

**FUTURE CANDIDATE PROJECTS**  
Improvements to State Road 528 and connectivity to Port Canaveral for cruise line traffic are critical to OIA.

A connection from OIA to the Orange County Convention Center is a priority.

A connection from Interstate 95 to Orange County would help employees commuting from Brevard County.

The International Drive area needs some sort of circulator.

Vertical takeoff and landing technology is a future mode of transportation to keep in mind.

ORGANIZATION NAME | **LYNX, Central Florida Transportation Authority**

**Audience:** Stakeholder | **Date:** December 1, 2020

**ATTENDEES**

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer Glenn Pressimone, P.E.   CFX, Chief of Infrastructure	<b>LYNX, Central Florida Regional Transportation Authority</b> James E. (Jim) Harrison   LYNX, Chief Executive Officer Tiffany Homler Hawkins   LYNX Chief Administrative Officer
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**DISCUSSION HIGHLIGHTS**

Transit funding is currently static, with state block grants providing the funds until 2022. The timing for a proposed sales tax surcharge for transportation in Orange County is uncertain. The Federal Transit Administration process is challenging.

Service development grants from the Florida Department of Transportation may help with a two-year pilot project to allow buses to use road shoulders.

How can CFX and LYNX make a cohesive regional plan from CFX’s projects and studies and the LYNX Forward plans for Orange, Osceola, and Seminole counties?

**FUTURE CANDIDATE PROJECTS**  
Proposed pilot ideas includes the ability for CFX to designate a lane specifically for LYNX buses such as express routes, a bus-on-shoulder pilot project for downtown, and a Pilot project between I-Drive and the Orlando International Airport

ORGANIZATION NAME | **NASA’s Kennedy Space Center**

**Audience:** Stakeholder | **Date:** February 16, 2021

**ATTENDEES**

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>NASA/Kennedy Space Center (KSC)</b> Tom Engler   NASA/KSC, Director of Center Planning & Development Amy Houts Gilfriche   NASA/KSC, Partnership Development Manager Steven Gilmore, AICP   NASA/KSC, Master Planner David Thorpe, AICP   NASA/KSC, Master Planner Jennifer Krouchick   NASA/KSC, Assistant Master Planner
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**DISCUSSION HIGHLIGHTS**

NASA/KSC Recently completed a development plan that forecasts heavy construction on its property as space ventures expand.

Its workforce is trending toward younger employees who live in the Orlando metro area.

Improvements are needed to State Road 407 and the State Road 405 bridge for Blue Origin and SpaceX.

State Road 528 reliability is critical for employees commuting between the Orlando area and NASA/KSC.

NASA/KSC is supportive of potential alternatives to Brevard County other than SR 528.

ORGANIZATION NAME | **Melbourne Orlando International Airport**

**Audience:** Stakeholder | **Date:** November 16, 2020

**ATTENDEES**

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer Glenn Pressimone, P.E.   CFX, Chief of Infrastructure	<b>Melbourne Orlando International Airport</b> Cliff Graham   Melbourne Orlando International Airport, Director of Operations & Maintenance
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**DISCUSSION HIGHLIGHTS**

The airport is a designated SIS (strategic intermodal system) airport.

It is landlord to various technology companies.

Airport traffic has decreased.

Cliff Graham is vice chairman of technical advisory committee for Space Coast Transportation Planning Organization.

The airport is supportive of regionalism because its arrivals travel throughout Central Florida.

The airport is near Brightline trains and owns 100 acres along Florida East Coast Railway tracks.

The airport is underutilized as a cargo airport and is assessing cargo and freight Osceola-Brevard Connector related to aerospace and for “roll on/roll off” using barges for airline cargo going to Port Canaveral.

About 60% of aerospace industry parts arrive from Brazil and a Brazilian airline operates at the airport.

Agreements are in place with two United Kingdom airlines to use the airport for leisure passengers.

Airport officials are Interested in being on the project advisory group for Osceola/Brevard Connectors project.

SIS corridor has long-term needs addressing “dead man’s curve.”

The airport suggests considering an express connection to the west.

The airport is interested in the Visitor Toll Pass and E-PASS parking programs.

Ellis Road, a two-lane county road, is a major priority that needs widening, but is complicated due to many utilities. About 60% of plans are complete, but only right-of-way has been funded. It connects from the airport area to the St. Johns Heritage Parkway near Interstate 95

The I-95 Exit 182 provides direct airport access, saving 10 minutes of drive time. It was opened in 2019.

ORGANIZATION NAME | **Orlando-Sanford Airport Authority**

**Audience:** Stakeholder | **Date:** November 19, 2020

**ATTENDEES**

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Orlando Sanford International Airport (Sanford Airport Authority)</b> Tom Nolan   Orlando Sanford International Airport, President & CEO George Speake Jr.   Orlando Sanford International Airport, Executive Vice President and COO
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**DISCUSSION HIGHLIGHTS**

Tom Nolan will be in role as President and CEO for three months as of November 30, 2020.

Before the COVID-19 outbreak, the Orlando Sanford International Airport handled 3.6 million passengers annually.

The airport authority owns 3,000 acres and offers flights to 72 destinations with low-cost airlines.

A key goal for the airport is increasing domestic traffic.

**FUTURE CANDIDATE PROJECTS**

Access to and from the airport is important, and airport officials would like a direct connection from State Road 417.

Consider studying a direct connection from Red Cleveland Boulevard to the airport.

Airport signage from SR 417 to the airport needs clarifying.

The Lake Jessup bridge on SR 417 needs improvement.

Congestion considerations for improvement include the SR 417 interchange at Ronald Reagan Boulevard, which could benefit from adding a turn lane and eventually lengthening the ramp. Another congested area is Lake Mary Boulevard.

ORGANIZATION NAME | **Port Canaveral**

**Audience:** Stakeholder | **Date:** November 4, 2020

**ATTENDEES**

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Port Canaveral</b> Captain John Murray   Port Canaveral, Director & CEO Craig Langley, P.E., Esq.   Port Canaveral, Vice President, General Counsel Diane Luensmann   Port Canaveral, Vice President, Government & Strategic Communications Clyde Mathis   Port Canaveral, Vice President, Cruise & Cargo Operations
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**DISCUSSION HIGHLIGHTS**

The State Road 401 bridge is a main connection in and out for the port for passengers and freight. A Florida Department of Transportation Project Development and Environmental (PD&E) study of replacing or rehabbing the bridge was cancelled.

State Road 528 improvements are important.

Port officials are unconvinced that the Brightline train is an option for cruise lines.

Port officials are interested in E-PASS and E-ZPass parking program for Port Canaveral and Port of Tampa Bay.

# Regional Planning Organization Feedback

ORGANIZATION NAME | **East Central Florida Regional Planning Council**

**Audience:** Stakeholder | **Date:** February 11, 2021

ATTENDEES

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer Glenn Pressimone, P.E.   CFX, Chief of Infrastructure	<b>East Central Florida Regional Planning Council</b> Hugh Harling   East Central Florida Regional Planning Council, Executive Director Tara McCue   East Central Florida Regional Planning Council, Director of Planning & Community Development
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DISCUSSION HIGHLIGHTS

CFX board member Sean Parks is council chairman, and CFX Board member Lee Constantine is a council member.

Support for building of regional projects.

Congestion is an issue on State Road 50 from Woodbury Road to State Road 520.

Growth around Deseret Ranch needs to be considered for thoughtful planning.

The council mentioned reducing time during road maintenance projects. (CFX explained its pre-maintenance timeframe is shorter than the Florida Department of Transportation and that CFX uses longer-lasting products.)

Question: Would CFX support a trail crossing over State Road 528?

The council is concerned about safety of FDOT plans to place bike lanes near interchanges.

The council recommends coordination with the River to Sea Transportation Planning Organization (TPO).

ORGANIZATION NAME | **MetroPlan Orlando Board**

**Audience:** Public | **Date:** June 9, 2021

ATTENDEES

<b>Presenter</b> Glenn Pressimone, P.E.   CFX, Chief of Infrastructure	<b>Estimated Number of Attendees:</b> 18 board members
<b>Notetaker</b> Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	

QUESTIONS ASKED

None

Comments

Orange County Commissioner Christine Moore thanked CFX for the effort on the SR 429 widening in west Orange County and the eventual work on SR 414.

ORGANIZATION NAME | **MetroPlan Orlando, Citizens’ Advisory Committee (CAC)**

**Audience:** Public | **Date:** May 26, 2021

ATTENDEES

<b>Presenter</b> Will Hawthorne   CFX, Director of Engineering	<b>Estimated Number of Attendees:</b> 30
<b>Notetaker</b> Emily Brown   CFX, Manager of Public Affairs	

QUESTIONS ASKED

Can you share some of the factors that cause a road to deteriorate?

Will the public be able to see the survey results?

Are there corridors that Central Florida Expressway Authority has concerns about in the long term in terms of population growth and development?

ORGANIZATION NAME | **MetroPlan Orlando, Municipal Advisory Committee**

Audience: Public | Date: June 3, 2021

ATTENDEES

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Emily Brown   CFX, Manager of Public Affairs	10 Committee Members
<b>Notetaker</b>	
Vanessa Torline   Day Communications	

QUESTIONS ASKED

None

ORGANIZATION NAME | **MetroPlan Orlando Technical Advisory Committee (TAC) and Transportation Systems Management and Operations Advisory Committee (TSMO)**

Audience: Public | Date: May 21, 2021

ATTENDEES

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Will Hawthorne, P.E.   CFX, Director of Engineering	40
<b>Notetaker</b>	
Emily Brown   CFX, Manager of Public Affairs	

QUESTIONS ASKED

Are there any plans for beltway within the Greater Orlando beltway that the Central Florida Expressway Authority already offers?

Is there any improvement planned for the south end of Interstate 4 near State Route 429?

ORGANIZATION NAME | **Central Florida MPO Alliance**

Audience: Public | Date: July 9, 2021

ATTENDEES

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Will Hawthorne, P.E.   CFX, Director of Engineering	17 Members
<b>Notetaker</b>	15 Members of the Audience
Merissa Battle   Dewberry, Transportation Planner	

QUESTIONS ASKED

None

ORGANIZATION NAME | **Lake-Sumter MPO, Community Advisory Committee**

Audience: Public | Date: April 14, 2021

ATTENDEES

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Emily Brown   CFX, Manager of Public Affairs	17
<b>Notetaker</b>	
Vanessa Torline   Day Communications	

QUESTIONS ASKED

Has there been further dialogue between CFX and FTE about an exchange of facilities?

Will CFX be expanding from four lanes to eight lanes on any facilities?

ORGANIZATION NAME | **Lake-Sumter MPO, Technical Advisory Committee**

Audience: Public | Date: April 14, 2021

ATTENDEES

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Will Hawthorne, P.E.   CFX, Director of Engineering	23
<b>Notetaker</b>	
Emily Brown   CFX, Manager of Public Affairs	

QUESTIONS ASKED

None

ORGANIZATION NAME | **Polk County TPO Staff**

**Audience:** Technical Staff | **Date:** February 25, 2021

ATTENDEES

<b>Central Florida Expressway Authority</b> Will Hawthorne, P.E.   CFX, Director of Engineering Emily Brown   CFX, Manager of Public Affairs Jonathan Williamson, AICP   Dewberry, Senior Project Manager Merissa Battle   Dewberry, Transportation Planner	<b>East Central Florida Regional Planning Council</b> Chandra Frederick   Polk TPO, Executive Director Ryan Kordek   Polk TPO, Transportation Planning Administrator
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DISCUSSION HIGHLIGHTS

The Polk TPO’s Momentum 2045 Plan identifies Polk’s regional planning. There is a need for a lot of roadway connectivity throughout the county.

The US 27 reliver is the Central Polk Parkway Corridor. The TPO is hopeful that the FDOT M-CORES will relieve some of the US 27 traffic; hoping that it serves a lot of purpose.

Currently none of the expressways are located in Polk County. Polk County in the future may seek to join one of the Tolling Authorities in the region.

**Future Candidate Projects**  
Project #11 (Southport Connector West Extension) and #5 (Southport Connector Expressway) are more of a larger bypass of Orlando and regional connection.

Project #14 (SR 516 westerly extension to SR 33) and #15 (SR 516 southern extension to I-4) would have environmental constraints, including the Great Swamp.

The County depends a lot on US 27 to relieve north-south traffic in that area of the County.

Polk TPO would like to see a corridor around 11 (Southport Connector West Extension) that travels up US 17/92.

ORGANIZATION NAME | **Space Coast TPO Board**

**Audience:** Public | **Date:** September 9, 2021

ATTENDEES

<b>Presenter</b> Laura Kelley   CFX, Executive Director	<b>Estimated Number of Attendees:</b> N/A
<b>Notetaker</b> Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	

QUESTIONS ASKED

None

Comments

Consensus that there is no interest in tolls in Brevard County.

# County Government Feedback

ORGANIZATION NAME | **Brevard County Board of County Commissioners**

**Audience:** Public | **Date:** May 18, 2021

ATTENDEES

<b>Presenter</b> Laura Kelley   CFX, Executive Director	<b>Estimated Number of Attendees:</b> 6 commissioners
<b>Notetaker</b> Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	

QUESTIONS ASKED

- District 2 Commissioner Bryan Lober asked for details about funding and if CFX projects would cause Bevard County to lose funding from Florida Dept. of Transportation.
- Do tolls collected in Brevard County get reinvested in Brevard County or spread around the CFX system?
- What thought has been given to transferring the portion of SR 528 owned by FDOT to CFX’s ownership?
- How will water flow issues around bridges be addressed?
- What is the difference between CFX and FDOT ownership as it relates to State Road 528?

ORGANIZATION NAME | **Brevard County and Space Coast TPO Staff**

**Audience:** Technical Staff | **Date:** November 4, 2020

ATTENDEES

<b>Central Florida Expressway Authority</b> Glenn Pressimone, P.E.   CFX, Chief of Infrastructure Will Hawthorne, P.E.   CFX, Director of Engineering Emily Brown   CFX, Manager of Public Affairs Jonathan Williamson, AICP   Dewberry, Senior Project Manager Merissa Battle   Dewberry, Transportation Planner Carleen M. Flynn, AICP   CDM Smith, Senior Project Manager & Client Service Leader	<b>Brevard County and Space Coast TPO</b> Jeffery Ball   Brevard County, Manager Planning & Zoning Georganna Gillette   Space Coast TPO, Executive Director Laura Carter   Space Coast TPO, Assistant Director
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DISCUSSION HIGHLIGHTS

- Development is expected along the west side of I-95, throughout the county, as well as in the southern areas around Palm Bay.
- Brevard anticipates targeted growth in Corridors 7, 8, and 8a on the map, particularly in the vicinity of Viera.
- FUTURE CANDIDATE PROJECTS**  
What is the status of the SR 408 Eastern Extension study? The PD&E study has been completed, but further phases are on hold pending FTE’s Colonial Parkway PD&E study.
- Have there been any discussions about extending SR 528 (Beachline) into Brevard? CFX plans to meet with Brevard County Commissioners to discuss this Master Plan and other initiatives.
- Can you provide information on Project #17 (US 1 to SRA1A bridge near Malabar)? It is not included in the Space Coast plans.
- Project #17 will be removed as it does not align with the overall plan. However, Project #16 (Expressway from Turnpike to I-95 and US 1) is favored.
- A bridge to A1A may not be feasible due to environmental concerns.

ORGANIZATION NAME | **Lake County Board of County Commissioners**

**Audience:** Public | **Date:** May 25, 2021

**ATTENDEES**

Presenter	Estimated Number of Attendees:
Laura Kelley   CFX, Executive Director	5 commissioners
Notetaker	
Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	

**QUESTIONS ASKED**

- Commissioner Doug Shields inquired about the status of toll system interoperability
- Commissioner Kirby Smith inquired about the progress of the Brightline rail and suggested a Eustis to Orlando route
- Commissioner Leslie Campione asked for details on CFX’s Visitor Toll Pass program for rental car customers

ORGANIZATION NAME | **Lake County Staff**

**Audience:** Technical Staff | **Date:** November 4, 2020

**ATTENDEES**

Central Florida Expressway Authority	Lake County
Glenn Pressimone, P.E.   CFX, Chief of Infrastructure	Fred Schneider, P.E.   Lake County, Public Works Director
Emily Brown   CFX, Manager of Public Affairs	Jeffrey Earhart, P.E.   Lake County, Engineering Manager
Jonathan Williamson, AICP   Dewberry, Senior Project Manager	Tim McClendon, AICP   Lake County, Director of Planning and Zoning
Merissa Battle   Dewberry, Transportation Planner	

**DISCUSSION HIGHLIGHTS**

- Lake County still has a lot of rural areas, but as development fills in, we will need to address growth and maintain a road network to accommodate. CFX can be a great partner in this.
- The areas of Horizon West and the US 27 corridor in southern Lake County, as well as Clermont, are experiencing and will continue to experience growth over the next several years. The Lake-Orange Connector also will accelerate development in the area of Lake County between SR 429 and US 27.
- The Lake-Orange Connector will be a great project to provide an additional east-west connection for residents of Clermont who may work at Disney or Orange County. Any additional expressways will be a benefit.
- FUTURE CANDIDATE PROJECTS**  
Lake County would like to see Project #13 (SR 453 extension to SR 19) extended over to I-75. Not sure how best to accomplish this but need more expressway facilities in the county.
- Project #14 (SR 516 west to SR 33) would have concerns about the Green Swamp environmental impact.
- Project #15 (SR 516 south to I-4) would have Green Swamp environmental concerns, but an expressway connection from US 27 near Clermont to I-4 might be an option to consider as a reliever to US 27 through southern Lake and northern Polk counties.

ORGANIZATION NAME | **Orange County Board of County Commissioners**

**Audience:** Public | **Date:** September 14, 2021

ATTENDEES

<b>Presenter</b> Laura Kelley   CFX, Executive Director	<b>Estimated Number of Attendees:</b> 30 commissioners
<b>Notetaker</b> Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	

QUESTIONS ASKED

- If Brightline has to pay CFX for taking cars off the road, how does that act as a multimodal incentive?
- Are there any updates regarding Split Oak Forest?
- Do you have a timeline on the widening of SR 429?
- Are there plans to widen SR 453 up into Lake County?
- Is SR 414 maintained by CFX or FDOT? Once [the elevated section is built], will surface roads convert over to CFX?

ORGANIZATION NAME | **Orange County Staff**

**Audience:** Technical Staff | **Date:** November 4, 2020

ATTENDEES

<b>Central Florida Expressway Authority</b> Glenn Pressimone, P.E.   CFX, Chief of Infrastructure Emily Brown   CFX, Manager of Public Affairs Jonathan Williamson, AICP   Dewberry, Senior Project Manager Merissa Battle   Dewberry, Transportation Planner	<b>Orange County</b> Renzo Nastasi   Orange County, Transportation Planning Manager
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DISCUSSION HIGHLIGHTS

- Orange County plans to focus future growth in urban areas, particularly on the east side of the county, instead of sprawling development.
- Lake Pickett is identified as another growth area, with home and commercial construction expected within the next 12 to 18 months.
- Horizon West is estimated to take at least another 10 years to be fully built out.
- FUTURE CANDIDATE PROJECTS**  
Orange County expresses the need for the SR 408 Eastern Extension. CFX acknowledges the expected growth in that area and foresees challenges ahead.
- The plan for CFX to purchase the SR 528 to Brevard is an ongoing conversation, with budget restrictions due to Covid potentially affecting the conversations about the purchase.
- The Lake-Orange Connector is programmed to start construction, potentially in 2024. The first phase is expected to be completed in 2025, with all three phases finished by summer 2025.
- The Osceola Parkway Extension, this project is currently delayed in Tallahassee, awaiting a decision from the board. Sufficient funds are available for design, but not for construction.
- The Corridor I Feasibility Study, shown on the map, no further steps have been determined at this time. The project is ahead of its time, and no growth is currently anticipated in the area.
- For State Road 50, CFX does not have this project in its Five-Year Work Plan for next fiscal year. It would require involvement from the Department of Transportation (DOT) or another entity to initiate collaboration.

ORGANIZATION NAME | **City of Orlando Staff**

**Audience:** Technical Staff | **Date:** March 8, 2021

**ATTENDEES**

Central Florida Expressway Authority	City of Orlando
Will Hawthorne, P.E.   CFX, Director of Engineering	Francis Flynn   City of Orlando, Deputy Chief
Jonathan Williamson, AICP   Dewberry, Senior Project Manager	Administrative Officer
Merissa Battle   Dewberry, Transportation Planner	Tanya Wilder   City of Orlando, Transportation Department Director
	Christopher Cairns   City of Orlando, Transportation Engineering Manager
	Claudia Korobkoff, AICP   City of Orlando, Division Manager, Transportation Planning
	Scott Zollars   City of Orlando, Parking Bureau Chief

**DISCUSSION HIGHLIGHTS**

Discussed the level of capacity on SR 408 from Downtown to University of Central Florida. CFX shared they are evaluating part-time shoulder use or special use lanes, like BRT, starting with determining whether SR 408 has the width to accommodate.

Variable tolling future considerations and approval required by CFX Governing Board.

**FUTURE CANDIDATE PROJECTS**

What is the status of the Osceola Parkway Extension? It is held up in Tallahassee, Florida; They don't have enough board members to render a decision. There's funding for the Design phase.

What's the status on the SR 408 Eastern Extension project? CFX completed the PD&E study and, as of now, is not in the current or the future Five-Year Work Plan.

Is CFX exploring ways to support autonomous vehicles? Yes. But there are so many uncertainties with adoption and technologies, our 2045 Master Plan will evaluate implementation.

How's CFX integrating Bike Paths in future expressway expansions? CFX is a limited-access facility, and bike path accommodations would be unsafe.

ORGANIZATION NAME | **Osceola County Board of County Commissioners**

**Audience:** Public | **Date:** May 3, 2021

**ATTENDEES**

Presenter	Estimated Number of Attendees:
Laura Kelley   CFX, Executive Director	N/A
Notetaker	
Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	

**QUESTIONS ASKED**

None

ORGANIZATION NAME | **Osceola County**

**Audience:** Technical Staff | **Date:** January 19, 2021

ATTENDEES

**Central Florida Expressway Authority**

Glenn Pressimone, P.E. | CFX, Chief of Infrastructure  
Emily Brown | CFX, Manager of Public Affairs  
Jonathan Williamson, AICP | Dewberry, Senior Project Manager  
Merissa Battle | Dewberry, Transportation Planner

**Osceola County**

Tawny Olore | Osceola County, Transportation & Transit Director  
Joshua DeVries, AICP | Osceola County, Transportation Planning Director and Sr. Planner  
Justin Eason | Osceola County, Planner II  
Danielle Slaterpryce | Osceola County, Public Works Director  
Susan Caswell | Osceola County, Assistant Community Development Administrator  
Kerry Godwin | Osceola County, Director of Planning and Design  
Corinne Carpenter | Osceola County, Principal Planner  
Raymond C Stangle | Osceola Engineering, Inc., Vice President  
Jose Gomez | Osceola Engineering, Inc., Director of Development Review  
Nicholas Hartley | Osceola Engineering, Inc., Principal Engineer

DISCUSSION HIGHLIGHTS

Osceola County's targeted area for growth is within the urban growth boundary, and they aim to maintain growth within this boundary. The county has adopted a transportation element in their 2040 plan to ensure local connectivity and reduce reliance on state and expressways.

Osceola County has a policy of widening county roads to four lanes instead of six, and they are committed to adhering to this policy.

The county plans to collaborate with transportation agencies for additional road improvements within Osceola County.

FUTURE CANDIDATE PROJECTS

Osceola County and CFX are collaborating on concept, feasibility, mobility, and PD&E studies, reflecting a positive direction.

The county emphasizes the need to establish a framework of arterial roads around mixed-use areas to support future development.

The Poinciana Parkway Extension to I-4 project is better suited for FDOT due to federal funding, and a partnership between CFX and FDOT will be formed.

CONTINUED

Corridor Prioritization: CFX inquired about corridors in the PD&E phase that should be prioritized for design. Osceola County highlighted the Southport Connector along Cypress Parkway as a priority.

Project #5 and #5A: Osceola County raised questions about Project #5 and #5A corridors and whether both will be constructed. CFX indicated that only one alternative, either #5 or #5A, will be built, and further studies will identify the challenges. Project #5 is located near mixed development and was part of a tripod agreement.

Partnership Opportunities: Osceola County inquired about partnership opportunities similar to Project 532, where CFX builds local roads near an interchange. CFX confirmed their capability to construct local roads up to one mile to directly connect to an interchange.

ORGANIZATION NAME | **Seminole County Staff**

**Audience:** Technical Staff | **Date:** February 11, 2021

ATTENDEES

**Central Florida Expressway Authority**

Will Hawthorne, P.E. | CFX, Director of Engineering  
Emily Brown | CFX, Manager of Public Affairs  
Jonathan Williamson, AICP | Dewberry, Senior Project Manager  
Merissa Battle | Dewberry, Transportation Planner

**Seminole County**

William “Bill” Wharton | Seminole County, Principal Planner  
Jean Jreij | Seminole County, Public Works Director/County Engineer  
Jeff Hopper | Seminole County, Principal Planner for Comprehensive Team  
Medhat Hassan | Seminole County, Assistant County Engineer  
Mary Moskowitz, AICP | Seminole County, Planning & Development Division Manager  
Anthony Nelson | Seminole County, Deputy Public Works Director/Deputy County Engineer

DISCUSSION HIGHLIGHTS

Two targeted areas of growth in Seminole County: Proximity to the Orlando Sanford International Airport and I-4 area.

Seminole County is currently conducting a Land Use study for the Lake Mary Boulevard area. The county will gladly share the study’s results with CFX upon its completion in March/April 2023.

Seminole County understands Volusia’s stance on not wanting an expressway along SR 415 to I-95.

FUTURE CANDIDATE PROJECTS

High interest in Project 9 - SR 417 to Orlando Sanford International Airport Connector. That area is experiencing significant growth, and it is desired for a project to commence sooner rather than later.

County does not have any additional projects beyond what is already captured on the map.

ORGANIZATION NAME | **Seminole County Commissioner Amy Lockhart (District 4)**

**Audience:** Stakeholder | **Date:** November 19, 2020

ATTENDEES

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Seminole County Commission</b> Commissioner Amy Lockhart   District 4
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DISCUSSION HIGHLIGHTS

Better road connectivity is needed across Seminole County, especially to Orlando Sanford International Airport, to the Seminole County sports complex, and to the Five Points operations complex.

Consider aggregating CFX's Master Plan survey with MetroPlan's master transportation plan survey and East Central Florida Regional Planning Council's "How Shall We Grow?" survey, which is launching March 2020, in order to form a regional plan. The Planning Council was proposed to lead aggregation and analysis, and Datanautix, a UCF incubator company, could be considered for assistance.

There are several congestion considerations for Seminole surface roads, including Lake Mary and Ronald Reagan boulevards.

ORGANIZATION NAME | **Seminole County Commissioner Andria Herr (District 5)**

**Audience:** Stakeholder | **Date:** June 11, 2021

ATTENDEES

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Seminole County Commission</b> Commissioner Andria Herr   District 5
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DISCUSSION HIGHLIGHTS

None

ORGANIZATION NAME | **Seminole County Commissioner Bob Dallari (District 1)**

**Audience:** Stakeholder | **Date:** November 19, 2020

ATTENDEES

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Seminole County Commission</b> Commissioner Bob Dallari   District 4
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DISCUSSION HIGHLIGHTS

The Lake Jessup Bridge on State Road 417 poses environmental issues.

SR 417 widening throughout Seminole County should be discussed further.

Aloma Avenue to Tuskavilla Road needs widening from 0.25-miles to 0.5 miles.

Opportunity for first responders on the road, relating to safety and law enforcement.

FUTURE CANDIDATE PROJECTS

Connection from SR 417 to Orlando Sanford International Airport needs improvement.

The SR 417 interchanges along Aloma Avenue and State 434 could be potentially reconfigured.

A SunRail route alongside SR 417 should be considered.

ORGANIZATION NAME | **Seminole County Commissioner Jay Zembower (District 2)**

**Audience:** Stakeholder | **Date:** December 7, 2020

ATTENDEES

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Seminole County Commission</b> Commissioner Jay Zembower   District 3
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DISCUSSION HIGHLIGHTS

Seminole County is developing along roadways.

Seminole voted for a transportation tax four times. Legislature support is needed for regional transportation tax.

Farming in Volusia County will lead to development; “approved rural development” needed.

It is important to preserve routes from State Road 417 to Orlando Sanford International Airport by adopting a study of the area.

Regional collaboration is vital.

FUTURE CANDIDATE PROJECTS

CFX should consider purchasing the Seminole Expressway section of State Road 417 in Seminole County.

Additional corridor considerations for expansion include one in east Seminole County and a north-south route other than Interstate 4 between Osceola and Volusia counties.

More mass transit systems are needed to move more people, not cars, and the commissioner says LYNX and SunRail are not mass transit.

Additional trails are needed to connect Orange and Volusia counties to Seminole’s greenways and trails system, but the commissioner is not in favor of state plans to place bike trails along roadways.

# City Government Feedback

ORGANIZATION NAME | **City of Apopka**

**Audience:** Public | **Date:** May 19, 2021

ATTENDEES

<b>Presenter</b> Will Hawthorne, P.E.   CFX, Director of Engineering Glenn Pressimone, P.E.   CFX, Chief of Infrastructure	<b>Estimated Number of Attendees:</b> 25
<b>Notetaker</b> Emily Brown   CFX, Manager of Public Affairs	

QUESTIONS ASKED

What connection are you creating at State Road 414 near Bear Lake to bypass the residential area?

Are there still express lanes being built on Interstate 4?

With the growth of the Sanford Airport, is there any way the State Road 414 can connect directly to Interstate 4?

How far does the Brightline service plan to extend from Orlando?

What is the top speed of the Brightline train?

Is it possible to create an elevated section of State Road 441 over Apopka to alleviate traffic?

Could there be additional State Road 414 and State Road 429 expressway entrances and exits near AdventHealth Apopka?

When will the State Road 429 and Interstate 4 connection be complete?

ORGANIZATION NAME | **City of Clermont**

**Audience:** Public | **Date:** January 11, 2022

ATTENDEES

<b>Presenter</b> Will Hawthorne, P.E.   CFX, Director of Engineering	<b>Estimated Number of Attendees:</b> 9 City Commissioners / City Staffers
<b>Notetaker</b> Gabrielle Rickstrew   Dewberry, Technical Writer	Roughly 100+ members of the audience

QUESTIONS ASKED

What is the timeline for completion of Wekiva Parkway?

What is the timeline for completion of Lake-Orange Connector?

Is there a plan for a connector from SR 408/Turnpike to US-27 to divert traffic from SR 50?

ORGANIZATION NAME | **City of Eustis**

**Audience:** Public | **Date:** December 2, 2021

ATTENDEES

<b>Presenter</b> Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Estimated Number of Attendees:</b> 7 Committee Members
<b>Notetaker</b> Amanda Day   Day Communications	

QUESTIONS ASKED

None

Comment

Put “Eustis” on expressway exit sign

ORGANIZATION NAME | **City of Kissimmee**

**Audience:** Public | **Date:** September 28, 2021

ATTENDEES

<b>Presenter</b> Will Hawthorne, P.E.   CFX, Director of Engineering	<b>Estimated Number of Attendees:</b> 22
<b>Notetaker</b> Merissa Battle   Dewberry, Transportation Planner	

QUESTIONS ASKED

How closely do you work with MetroPlan Orlando?

ORGANIZATION NAME | **City of Maitland**

**Audience:** Public | **Date:** June 14, 2021

ATTENDEES

<b>Presenter</b> Will Hawthorne, P.E.   CFX, Director of Engineering	<b>Estimated Number of Attendees:</b> N/A
<b>Notetaker</b> Merissa Battle   Dewberry, Transportation Planner	

QUESTIONS ASKED

Council Member Michael Thomas asked for a general idea of CFX’s plans for the Maitland area.

Is there any idea of building SR 414 further east?

ORGANIZATION NAME | **City of Mount Dora**

**Audience:** Public | **Date:** July 20, 2021

ATTENDEES

<b>Presenter</b> Will Hawthorne, P.E.   CFX, Director of Engineering	<b>Estimated Number of Attendees:</b> 7 Council members
<b>Notetaker</b> Merissa Battle   Dewberry, Transportation Planner	70-90 audience members

QUESTIONS ASKED

None

ORGANIZATION NAME | **City of Ocoee**

**Audience:** Public | **Date:** May 4, 2021

ATTENDEES

<b>Presenter</b> Will Hawthorne, P.E.   CFX, Director of Engineering	<b>Estimated Number of Attendees:</b> 23
<b>Notetaker</b> Emily Brown   CFX, Manager of Public Affairs	

QUESTIONS ASKED

- How is the Central Florida Expressway Authority funded?
- Does Central Florida Expressway Authority receive any funding from state or federal entities?
- There are more cars on the road due to an influx of people moving to Florida and overall increased car travel. Will toll rates be increased due to this?
- What is the estimated cost of construction of the elevated section of State Road 414?
- What are the plans to extend State Road 429 from two lanes to four lanes in Ocoee?

ORGANIZATION NAME | **City of Oviedo**

**Audience:** Public | **Date:** November 15, 2021

ATTENDEES

<b>Presenter</b> Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Estimated Number of Attendees:</b> 20 including 5 council members
<b>Notetaker</b> Amanda Day   Day Communications	

QUESTIONS ASKED

- Has there been a discussion about express lanes from Red Bug Road to State Road 434 to help alleviate traffic?
- Have you heard about a toll decrease or removal at State Road 434 to University Blvd. to help traffic to not funnel through Oviedo?

ORGANIZATION NAME | **City of Sanford**

**Audience:** Public | **Date:** August 23, 2021

ATTENDEES

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Will Hawthorne, P.E.   CFX, Director of Engineering	10-15 City Commissioners / City Staffers
<b>Notetaker</b>	50-60 members of the audience
Merissa Battle   Dewberry, Transportation Planner	

QUESTIONS ASKED

**City Commissioner Patty Mahany**

How far out are projections made when building or widening roads?

Why not build them as big as possible?

How far out can CFX predict?

**City Manager Norton N. Bonaparte, Jr.**

How do autonomous vehicles change the dynamic and is CFX prepared?

**Mayor Art Woodruff**

Is there still talk of CFX gaining full control over SR 417?

**Audience Questions**

Attendee suggested that CFX work with FDOT or local officials to change the timing on traffic lights. He believes the timers are set to the slowest allotted time to create traffic.

Attendee questioned the shoulder lanes on the road. She sees them as being too small at 3 feet; not enough room to safely move car off the road.

ORGANIZATION NAME | **City of St. Cloud**

**Audience:** Public | **Date:** December 9, 2021

ATTENDEES

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Will Hawthorne, P.E.   CFX, Director of Engineering	9 City Commissioners / City Staffers
<b>Notetaker</b>	Roughly 40+ members of the audience
Gabrielle Rickstrew   Dewberry, Technical Writer	

QUESTIONS ASKED

Are there plans to relieve congestion on I-4 between Polk County and SR 417?

What is the timeline for the Polk County section of Southport Connector?

Are there further development plans for central Osceola County?

ORGANIZATION NAME | **City of Tavares**

**Audience:** Public | **Date:** May 5, 2021

ATTENDEES

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Will Hawthorne   CFX, Director of Engineering	30
<b>Notetaker</b>	
Emily Brown   CFX, Manager of Public Affairs	

QUESTIONS ASKED

What are the extension plans for State Road 453?

Is the mentioned five-mile extension from U.S. Route 27 to State Road 429 in the Clermont area going to be an interstate? When will construction start?

ORGANIZATION NAME | **Town of Belle Isle**

**Audience:** Public | **Date:** November 16, 2021

**ATTENDEES**

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Will Hawthorne, P.E.   CFX, Director of Engineering	12 City Commissioners and Staff
<b>Notetaker</b>	About 30 audience members
Merissa Battle   Dewberry, Transportation Planner	

**QUESTIONS ASKED**

- Brightline in Right-of-Way / or easement
  - Has any thought about service roads as a relief option?
  - Getting a lot of traffic from people avoiding the toll roads by the airport.

ORGANIZATION NAME | **Town of Oakland**

**Audience:** Public | **Date:** November 9, 2021

**ATTENDEES**

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Will Hawthorne, P.E.   CFX, Director of Engineering	9 City Commissioners / City Staffers
<b>Notetaker</b>	Est. 20 attendees
Merissa Battle   Dewberry, Transportation Planner	

**QUESTIONS ASKED**

- How much money has been spent in Orange County?
- How many miles will the Lake-Orange Connector be?
- How long will construction of the Lake-Orange Connector take?
- Did CFX change the interchange at 535?

ORGANIZATION NAME | **Town of Windermere**

**Audience:** Public | **Date:** September 14, 2021

**ATTENDEES**

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Will Hawthorne, P.E.   CFX, Director of Engineering	25
<b>Notetaker</b>	
Merissa Battle   Dewberry, Transportation Planner	

**QUESTIONS ASKED**

- Is there anything CFX can do about congestion at the 429 transition to I-4? It’s dangerous.
- Is CFX aware of the explosive growth in the South/southwest? We tend to develop first and build roads ten years later and schools five years later. It would be good if we can get ahead of the curve.
- Has CFX considered extending SR 528 to the west? This may alleviate some of the traffic from the explosive growth in the southwest area.

ORGANIZATION NAME | **City of Winter Garden**

**Audience:** Public | **Date:** May 27, 2021

**ATTENDEES**

<b>Presenter</b>	<b>Estimated Number of Attendees:</b>
Will Hawthorne, P.E.   CFX, Director of Engineering	17 Members
<b>Notetaker</b>	15 Members of the Audience
Merissa Battle   Dewberry, Transportation Planner	

**QUESTIONS ASKED**

- Could we place a proposal for a light rail line between Orlando and Clermont?
- Is there anything else new and exciting in terms of technology that city leaders should be looking at for future development?

ORGANIZATION NAME | **City of Winter Springs**

**Audience:** Public | **Date:** December 13, 2021

ATTENDEES

<b>Presenter</b> Will Hawthorne, P.E.   CFX, Director of Engineering	<b>Estimated Number of Attendees:</b> 6 Commission Members and 2 Staff
<b>Notetaker</b> Vanessa Torline   Day Communications	30 attendees

QUESTIONS ASKED

Has the expansion of SR 417 with additional lanes at SR 434 been funded? (This is an FTE project.)

Where does the Brightline start and stop and what is the timeline?

# Private Sector Feedback

ORGANIZATION NAME | **Central Florida Hotel and Lodging Association (CFHLA)**

**Audience:** Stakeholder | **Date:** October 28, 2020

ATTENDEES

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer Glenn Pressimone, P.E.   CFX, Chief of Infrastructure	<b>Central Florida Hotel &amp; Lodging Association (CFHLA)</b> Rich Maladecki   CFHLA, President & CEO
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DISCUSSION HIGHLIGHTS

International visitors to Central Florida stay an average of 13.5 nights per trip. Out of the 75 million visitors to Central Florida in the previous year, 9% were international, suggesting a growth opportunity for international visitors.

The expected extension of the Brightline high-speed train from South Florida to Orlando International Airport in 2023 should raise interest for international visitors coming to Central Florida.

Domestic visitors to Central Florida stay an average of 5.5 nights per trip.

**Future Candidate Projects**  
Improvements to the Interstate 4 corridor at the Champions Gate interchange in Osceola County is critical to visitors to Central Florida.

There is support for a train connection between Orlando International Airport, the International Drive (I-Drive) tourist area, and the theme parks.

The association sees a need for more transit options along I-Drive.

ORGANIZATION NAME | **Deseret Ranches of Florida**

**Audience:** Stakeholder | **Date:** October 26, 2020

ATTENDEES

**Central Florida Expressway Authority**

Laura Kelley | CFX, Executive Director  
Michelle Maikisch | CFX, Chief of Staff/Public Affairs Officer  
Glenn Pressimone, P.E. | CFX, Chief of Infrastructure

**Deseret Ranches of Florida**

W. Don Whyte | Deseret Ranches of Florida, Vice President of Planning

DISCUSSION HIGHLIGHTS

Deseret Ranches is supportive of East Central Florida Corridor Task Force corridors.

It is important to take the future needs of elective and automated vehicles into account.

**Future Candidate Projects:**

An Interchange at State Road 528 and Dallas Boulevard and the Osceola Parkway Extension are priorities.

U.S. Highway 192 needs a parallel route other than Florida’s Turnpike.

A study for more stops for the Brightline train, with shuttles through Brevard County, is recommended.

ORGANIZATION NAME | **Duke Energy**

**Audience:** Technical Staff | **Date:** March 1, 2021

ATTENDEES

**Central Florida Expressway Authority**

Will Hawthorne, P.E. | CFX, Director of Engineering  
Emily Brown | CFX, Manager of Public Affairs  
Jonathan Williamson, AICP | Dewberry, Senior Project Manager  
Merissa Battle | Dewberry, Transportation Planner

**Duke Energy**

Elizabeth Godwin | Duke Energy, Economic Development Manager  
Greg Garcon | Duke Energy, Senior Transmission Planning Engineer  
Kari Conley | Duke Energy, Government and Community Relations Manager  
Miranda Burrows | Duke Energy, Transmission Public Engagement  
Marc Hoenstine | Duke Energy, Director of Economic Development  
Wendell J Hines | Duke Energy, Account Executive  
Ramzie Samman | Duke Energy, Engineer II  
Michael James Livermore | Duke Energy, Relay Construction Engineer  
Tunde Afolabi, P.E. | Duke Energy, Director Asset Design

DISCUSSION HIGHLIGHTS

**FUTURE CANDIDATE PROJECTS**

*Can you provide information about Project #5A and #5 (Southport Connector Expressway) and Project #11 (Southport Connector West Extension)?*

Only one alternative, either 5 or 5A, will be constructed, not both.

Project #11 involves evaluating the extension of Southport Connector Expressway to Central Polk Parkway/US 17/92, providing an additional east-west route.

*What is the current status of Project #1 (Osceola Parkway Extension) and Project #2 (SR 408 Eastern Extension)?*

The PD&E re-evaluation for Project #1 has been completed, but further progress is on hold pending approval of the linear facility option.

The PD&E study for Project #2 has been completed, but further phases are on hold pending FTE’s Colonial Parkway PD&E study.

ORGANIZATION NAME | **East Orlando Chamber**

**Audience:** Public | **Date:** December 2, 2021

ATTENDEES

<b>Presenter</b> Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Estimated Number of Attendees:</b> 33, including 3 Chamber staff
<b>Notetaker</b> Mimi Lamaute   CFX, Board Services Coordinator	

QUESTIONS ASKED

When will the Wekiva Parkway be complete?

Will CFX build the SR 408 Colonial Drive Extension?  
Will CFX work on an alternative, if the SR 408 Colonial Drive Extension is not constructed?

What plans does CFX have for reliving traffic congestion in Osceola County?

ORGANIZATION NAME | **Florida Citrus Sports**

**Audience:** Stakeholder | **Date:** October 30, 2020

ATTENDEES

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Florida Citrus Sports/Camping World Stadium</b> Steve Hogan   Florida Citrus Sports, CEO Tom Sittema   Florida Citrus Sports, Past Chairman and RiverBridge Capital Managing Director
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DISCUSSION HIGHLIGHTS

Downtown Orlando needs redevelopment, specifically potential parking garages near Camping World Stadium.

Local roads in downtown Orlando are in need of improvement.

ORGANIZATION NAME | **Florida’s Space Coast Economic Development Commission (EDC)**

**Audience:** Stakeholder | **Date:** February 16, 2021

ATTENDEES

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer Glenn Pressimone, P.E.   CFX, Chief of InfrastructureProject Manager	<b>Florida Department of Transportation (FDOT)</b> Jared Perdue   FDOT, District 5 Secretary Loreen Bobo   FDOT, Director of Transportation Development Anna Taylor   FDOT, Government Affairs Kellie Smith   FDOT, Planning Manager Development Manager
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DISCUSSION HIGHLIGHTS

With technology changing and resources scarce, CFX and FDOT District 5 must develop a cohesive strategy and ongoing partnership.

The group discussed mobility as a service.

Supports CFX as a mobility choice

ORGANIZATION NAME | **Orlando Economic Partnership (OEP)**

**Audience:** Stakeholder | **Date:** December 14, 2021

ATTENDEES

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Orlando Economic Partnership (OEP)</b> Tim Guiliani   OEP, President & CEO Sharon Smoley   OEP, Vice President, Advocacy & Public Policy
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DISCUSSION HIGHLIGHTS

OEP suggests incorporating partnership’s 2030: Insight into Orlando’s Future report into the CFX 2045 Master Plan.

Priorities mentioned include planning to connect cities for rail, autonomous vehicles, and freight vehicles.

The corridor priorities that were identified were the North-South Corridor and East-West Corridor to the Space Coast.

ORGANIZATION NAME | **OEP Alliance for Regional Transportation Executive Committee**

**Audience:** Public | **Date:** September 8, 2021

**ATTENDEES**

<b>Presenter</b> Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Estimated Number of Attendees:</b> 12 Members of the Alliance for Regional Transportation (ART) Work Group for the Orlando Economic Partnership
<b>Notetaker</b> Amanda Day   Day Communications, President	

**QUESTIONS ASKED**

Are trails along your right-of-way part of the long-term Master Plan?

Are there other multimodal projects being considered in the Master Plan?

ORGANIZATION NAME | **Orange County Public Schools**

**Audience:** Stakeholder | **Date:** December 14, 2020

**ATTENDEES**

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Orange County Public Schools (OCPS)</b> Teresa Jacobs   OCPS, School Board Chair Roberto Pacheco   OCPS, Chief Operations Officer Bill Wen   OCPS, Senior Director of Transportation Services
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**DISCUSSION HIGHLIGHTS**

School bus toll discounts offered by CFX are appreciated because OCPS saves fuel and time with CFX expressways.

About 200,000 students, plus many of their parents, and 26,000 employees travel to Orange County public schools daily. An average bus ride takes between 20 and 40 minutes.

Revenue: under 50% is paid for by the state, cannot afford to bus for choice  
Transportation is required for homeless and Individualized Education Program (IEP) students, but transportation is not provided to magnet schools, unlike Seminole County Public Schools.

The growth in west Orange County is causing congestion.

School officials discussed the importance of school drop-off access and bus safety.

School officials suggested dedicated school bus lanes, citing Washington DC, which uses High-Occupancy-Vehicle lanes for school buses.

ORGANIZATION NAME | **Orlando Health**

**Audience:** Stakeholder | **Date:** February 1, 2021

**ATTENDEES**

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Orlando Health</b> Andy Gardiner   Sr. VP, External Affairs & Community Relations
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**DISCUSSION HIGHLIGHTS**

As a transportation planning and visioning leader, CFX should be a regional transportation agency.

CFX should consider adding other counties such as Polk or Volusia, even if it requires an extension of the CFX Governing Board.

ORGANIZATION NAME | **Seminole County Public Schools**

**Audience:** Stakeholder | **Date:** December 3, 2020

**ATTENDEES**

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Seminole County Public Schools (SCPS)</b> Julie Murphy   SCPS, Director of Transportation Stanley McKenzie   Seminole County Bus Driver Association, President Joseph Ranaldi   SPCS, Executive Director of Operations
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**DISCUSSION HIGHLIGHTS**

Seminole County has more school buses on the road than most Florida districts.

Seminole County Schools is a district of choice, meaning it elects to fund transportation for magnet schools, which are expanding.

The cost of tolls limits expressway use because school buses are multi-axle vehicles. SCPS would use expressways more if CFX’s school bus discount program expanded to Seminole County.

Bus parking is near Seminole State College in Maitland.

Interstate 4/State Road 429 area is growing with multi-family units near International Boulevard. The area is committed to magnet schools.

An east-west link is needed between I-4 and State Road 417 in Winter Springs area.

Officials recommend meeting with the Seminole County mayors and managers group.

**FUTURE CANDIDATE PROJECTS**

Congestion problems exist at the I-4/SR 417 interchange, SR 417 near Orlando Sanford International Airport, and along State Roads 434 and 414. The bridge over Lake Jessup on SR 417 needs expanding.

ORGANIZATION NAME | **Seminole State College**

**Audience:** Stakeholder | **Date:** December 2, 2020

**ATTENDEES**

<b>Central Florida Expressway Authority</b> Laura Kelley   CFX, Executive Director Michelle Maikisch   CFX, Chief of Staff/Public Affairs Officer	<b>Seminole State College</b> Joe Mazur   Seminole State College, Vice President, Business Operations & Chief Financial Officer John Gyllin   Seminole State College, Vice President, Resource and Economic Development Lynn Garrett   Seminole State College, Campus Dean
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**DISCUSSION HIGHLIGHTS**

Seminole State College owns property adjacent to State Road 414.

The Heathrow Campus is near Wekiva Parkway (State Road 429).

ORGANIZATION NAME | **Space Florida**

**Audience:** Stakeholder | **Date:** January 13, 2021

**ATTENDEES**

**Central Florida Expressway Authority**

Laura Kelley | CFX, Executive Director  
Michelle Maikisch | CFX, Chief of Staff/Public Affairs Officer  
Glenn Pressimone, P.E. | CFX, Chief of Infrastructure

**Space Florida**

Mark Bontrager | Space Florida, Vice President  
Spaceport Operations  
Dale Ketcham | Space Florida, Vice President,  
Government & External Relations  
Steve Szabo | Space Florida, Director of Planning & Development  
Lauren Farrell | Space Florida, Project Manager,  
Spaceport Planning & Development

**DISCUSSION HIGHLIGHTS**

Funding ranges between \$20-120 million

Goal: Space Florida to be the economy of a freight hub

Space Florida is interested in full integration into the transportation network, because its mission is to create a spaceport for cargo and people.

Spaceport as an independent mode has support from the Florida Department of Transportation.

Officials have begun using the brand “aerospace triangle” nationally to refer to the space operations in the area.

State Road 407 and Interstate 95 connecting to State Roads 528 and 405 are most important to the Space Coast.

**FUTURE CANDIDATE PROJECTS**

Bridges need work or rebuilding, especially the State Road 401 drawbridge and the State Road 3 bridge.

ORGANIZATION NAME | **The Viera Company**

**Audience:** Stakeholder | **Date:** October 29, 2020

**ATTENDEES**

**Central Florida Expressway Authority**

Laura Kelley | CFX, Executive Director  
Michelle Maikisch | CFX, Chief of Staff/Public Affairs Officer

**The Viera Company**

Todd Pokrywa | Viera Company, President  
Brent Albertson | Viera Company, Director of Land Development Engineering  
Nick Abbott | Viera Company, Development Capital Planning/Financial Analyst

**DISCUSSION HIGHLIGHTS**

Viera is a Development of Regional Impact (DRI) with 20,000 acres on both sides of Interstate 95. As of now, half is built, with completion expected in 20 to 30 years.

In all, 31,000 residential properties are approved as well as 7 million square feet of office and commercial development. To date, 3.5 million square feet are completed.

Viera officials do not support the Corridor F alignments for proposed East Central Florida Corridor, because of river and lake conservation areas and Viera Wilderness Park.

Viera officials are supportive of additional Brightline train stops at Cocoa and the Melbourne Orlando International Airport.

# Board Materials

The CFX Governing Board was involved in the planning process for the 2045 Master Plan. CFX staff provided information to the board in August 2020 at the start of the planning process. Board members also participated in three workshops to discuss future technologies, AET and interoperability as well as candidate projects to include in the 2045 Master Plan. In December 2022, the CFX Governing Board approved the 2045 Master Plan. Board materials can be found on the following pages.

## KICK-OFF BOARD PRESENTATION AUGUST 2020



**2045 Master Plan Overview**

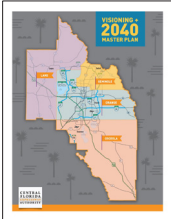
Glenn M. Pressimone, P.E., Chief of Infrastructure

Michelle Malkisch, Chief of Staff/Public Affairs Officer

— August 13, 2020 —

**2040 CFX Master Plan Progress**

- Identified \$11 billion in total projects
- Incorporated Osceola County Expressway Authority Master Plan projects
- Established the CFX Multimodal Policy
- \$2.5 billion anticipated to be invested in the region by 2025



**Purpose of the Master Plan**

- Establish policies and needs for future operations and capital investment decisions.
- Basis for Five-Year Work Plan.



**2040 Master Plan Progress: Vision, Mission, Core Values**

**VISION**

To provide the region with a world-class, integrated mobility network that drives economic prosperity and quality of life.


**MISSION**

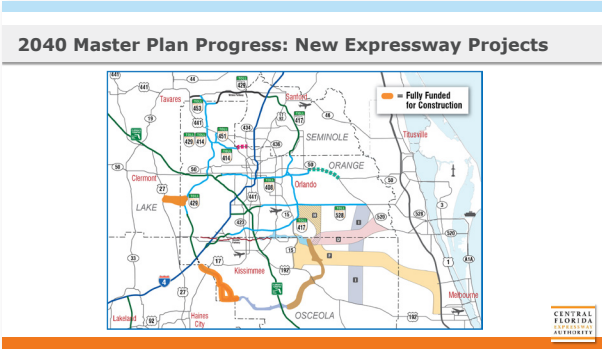
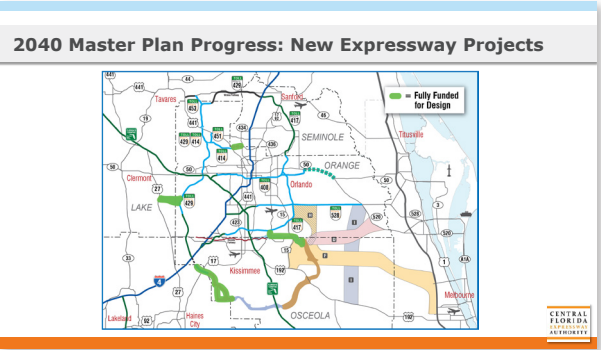
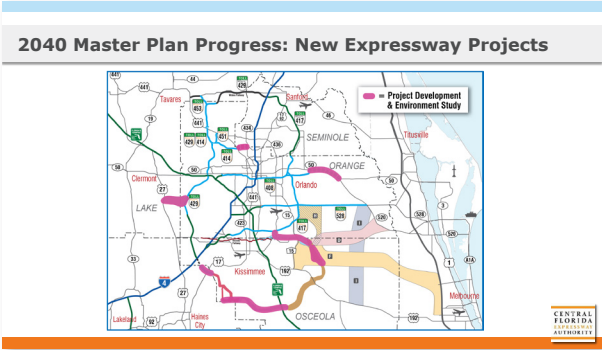
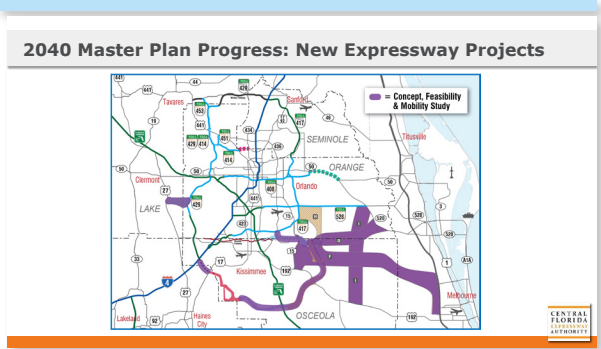
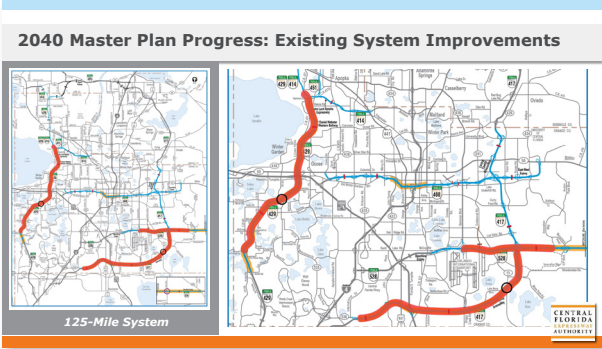
To build, operate and maintain a mobility network through accountability, fiscally sound practices and a community focus.




**CORE VALUES**

- Excellence
- Innovation
- Service
- Teamwork
- Commitment





**Moving Forward to 2045 Master Plan**




- Reaffirm/establish policies and needs for future operations and capital investment decisions.
- Basis for Five-Year Work Plan.

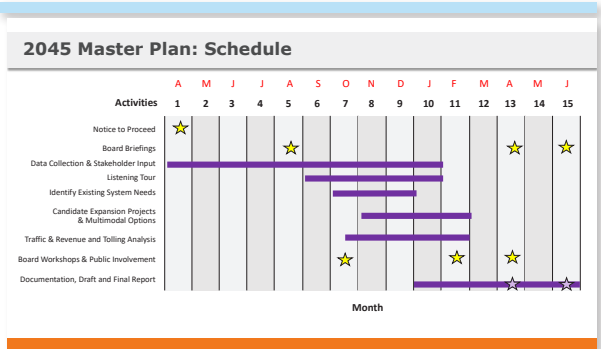
**2045 Master Plan: Listening Tour**

Collect data and input from stakeholders throughout CFX's five member counties.

**Key Topics:**

- Existing System Needs
- Tolling Technology
- Expansion Projects
- Multimodal Partnership Opportunities





BOARD WORKSHOP 1 FEBRUARY 2022

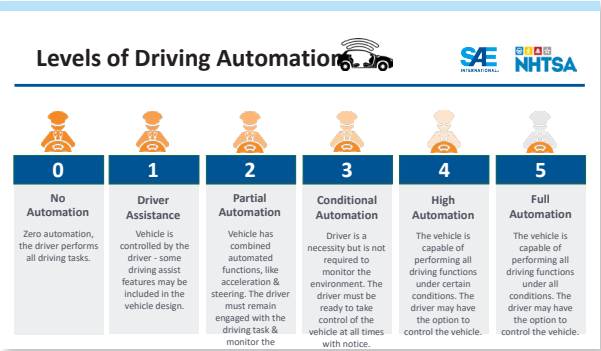
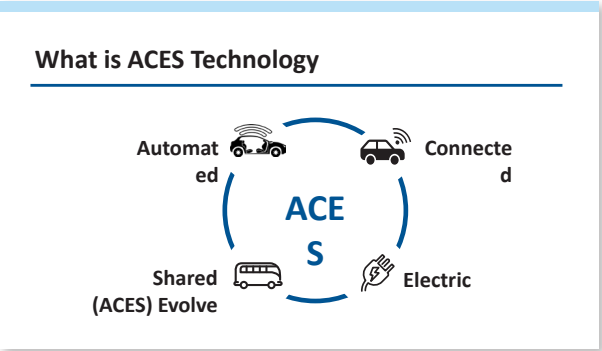
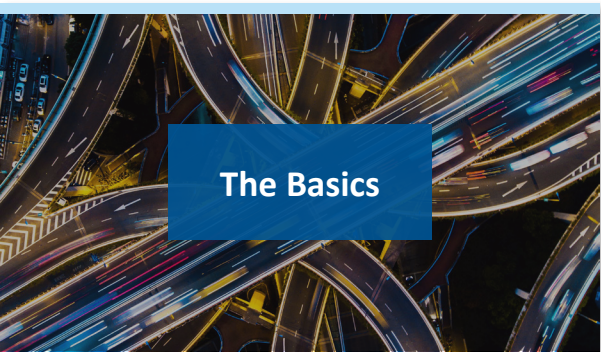
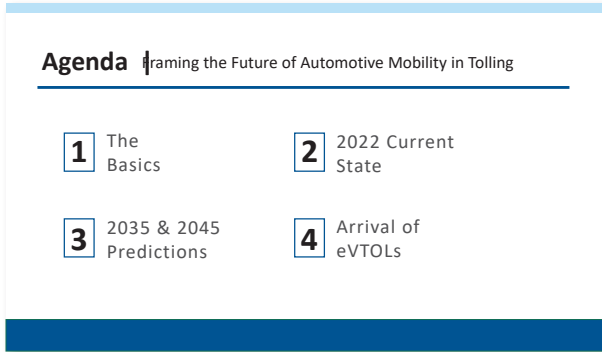
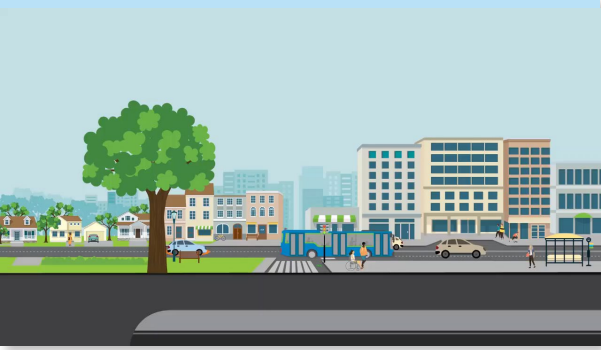
The February board meeting was the first of three board workshops held as part of the planning process for the 2045 Master Plan. The objective of the February 2022 workshop was to present information to CFX Governing Board members about future and emergent technologies that could impact CFX's expressway infrastructure. The information provided a strong foundation for board members to discuss CFX's role in planning and implementing future technologies, such as preparing for automated vehicles.

The workshop included presentations by Suzanne Murtha (AECOM) on Emergent Technologies and Mark de la Vergne (Cavnue) on the Future of Roads.


The workshop was facilitated by Bob Kodzis, trainer and facilitator with Flight of Ideas.



BOARD WORKSHOP 1 PRESENTATION MATERIALS



Connected



Electric



Road infrastructure isn't keeping up with vehicle technology

The more test-miles OEMs accrue, the more they understand how much complexity they still can't account for

Initial problem formulation

- Simple problem: lateral (torque) + longitudinal (acceleration / deceleration)
- Underestimates the complexity of the road

+Unpredictable road actors

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-

+Unpredictable infrastructure

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-

+Unpredictable environment

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-

Hundreds of thousands of intractable edge cases

Supportive infrastructure can radically simplify the complexity problem

Simplify

Sense + See

Inform + Coordinate

Permit + Penalize

The Future of Roads

CARS ARE GETTING SMARTER

- Vehicles with increasing ADAS<sup>1</sup> capability are reaching scale

ROADS HAVE NOT KEPT UP

- Road infrastructure is woefully inadequate to achieve these vehicles' full potential

SMART CARS NEED SMART ROADS

- The future of roads will be safer and more efficient

The future of roads.

Mark de la Vergne

Vice President, Project Development

mark@cavnue.com

Infrastructure can add value to technology

Dedicated and / or mixed use lanes for autonomous trucks, autonomous transit, and passenger AVs

Digital twin to improve road operations and maintenance

Trucking

- Improves safety
- Improves quality of driver experience to help address driver shortage
- Reduces shipping costs
- Additional savings via battery electric fleet integration

Transit

- Improves safety, which reduces operating costs
- Enhances fleet management and planning
- Improves reliability
- Provides equitable access to autonomy

Passenger

- Improves safety
- Increases throughput and time savings
- Provides value of autonomy to passengers
- Creates opportunity for future integration with EV charging

Operations

- Digitizes traffic monitoring and management
- Increases responsiveness to accidents
- Reduces operating expenses
- Minimizes revenue leakage

Maintenance

- Increases responsiveness to maintenance needs
- Reduces maintenance expenses
- Transforms MoT capabilities

Bringing Vehicle/Tech to Infrastructure

Cavnue has assembled a first-of-its-kind partnership between OEMs / AV companies and a road operator, with the goal of supporting the flagship project in Michigan by defining a set of OEM-neutral standards and accelerating hands-off eyes-off deployment.

ADVISORY COMMITTEE MEMBERS

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## BOARD WORKSHOP 2 MARCH 2022

The second of three board workshops held as part of the planning process for the 2045 Master Plan, the March 2022 workshop focused on All Electronic Tolling (AET) and Interoperability. Board members were presented with information about the impacts of converting the CFX system to AET, eliminating a cash payment method for toll drivers. Information was also provided on future interoperability with other existing tolling agencies. The information provided a strong foundation for board members to discuss future impacts of AET and interoperability.

The workshop included presentations by Jim Greer, CFX Chief of Technology/Operations.

The workshop was facilitated by Bob Kodzis, trainer and facilitator with Flight of Ideas.

Michigan CAV Corridor Project

Ultimate vision is to build a CAV-lane corridor between Detroit and Ann Arbor that improves the safety, connectivity, accessibility and affordability of mobility in SE Michigan.

Phase I is a collaborative piloting, planning, and feasibility exercise with the objective is to test technology and infrastructure, conduct analysis and community outreach, and establish a viable vision for the project.

92 | Central Florida Expressway Authority 2045 Master Plan

2045 Master Plan Central Florida Expressway Authority | 93

BOARD WORKSHOP 2 PRESENTATION MATERIALS

Technology  
Capital Investments

2045 Master Plan Workshop

March 10, 2022

CENTRAL  
FLORIDA  
EXPRESSWAY  
AUTHORITY

Vision

Our vision is to provide the region with a world-class, integrated mobility network that drives economic prosperity and quality of life.

Mission

To build, operate and maintain a mobility network through accountability, fiscally sound practices and a community focus.

Focus

Customer-First

ABOUT CFX

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CFX Approach

All-Electronic Tolling

EPASS

R

VISITOR  
TOLL PASS™

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CFX Approach

All-Electronic Tolling

???

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

What We Heard

36 presentations

66 meetings

1,105 people reached in Master Plan survey

funding expansion central roadways autonomous transportation vehicles people transit land traffic population cfx growth keeping roads florida area other cost technology areas increase

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

ABOUT CFX

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

Merging of Technology + Roadway Infrastructure

Technology

Roadway

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

Industry Trend

Interoperability & The Changing Customer

TOLL ROAD PASSES

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

What does National Interoperability Mean for CFX?

Video

Transponder

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

Industry Trend

CFX Approach

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

Industry Trend

All-Electronic Tolling

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

Third Party Payment Options

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CFX APPROACH

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

The changing customer.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

About All-Electronic Tolling (AET)

What is All-Electronic Tolling?

Enables cashless toll collection, either through transponders and/or license plate readers, eliminating the necessity of stopping the vehicle to pay the toll.

Sensors

Cameras

Radio Frequency

Plate Capture

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CFX Approach

All-Electronic Tolling

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

Industry Disruption

Ford

HONDA

SAMSUNG

Audi

Google

TOYOTA

Microsoft

SiriusXM

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

IBTTA

EzPass

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CFX APPROACH

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CFX Approach

Interoperability & The Changing Customer

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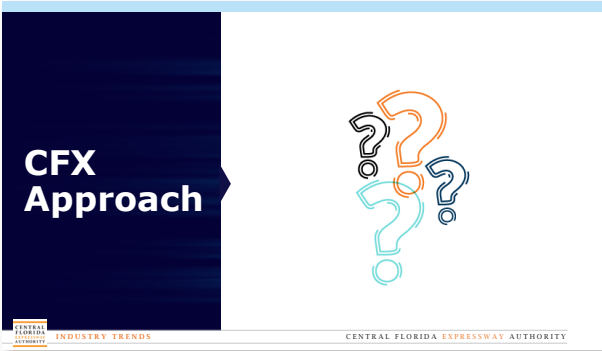
CENTRAL FLORIDA EXPRESSWAY AUTHORITY

INDUSTRY TRENDS

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

94 | Central Florida Expressway Authority 2045 Master Plan

2045 Master Plan Central Florida Expressway Authority | 95

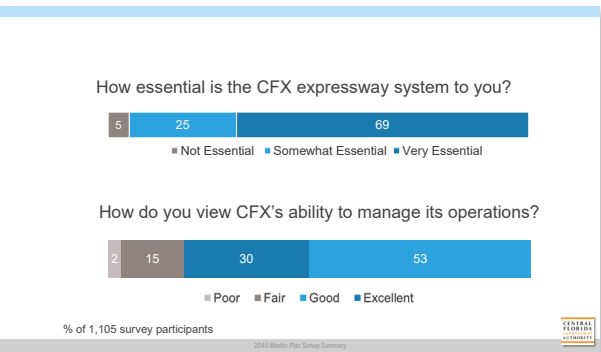


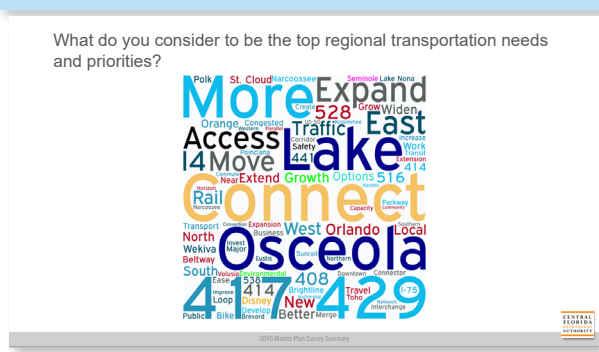
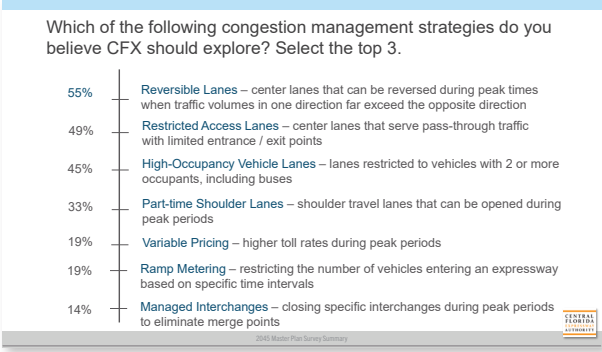
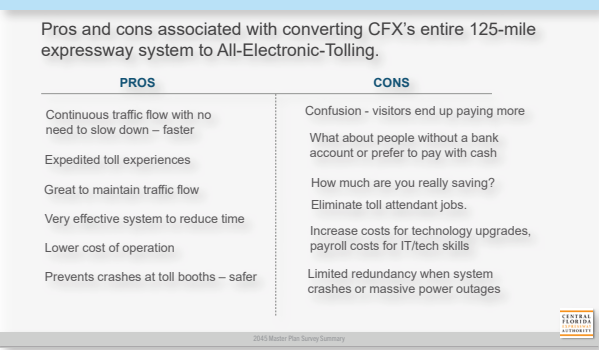
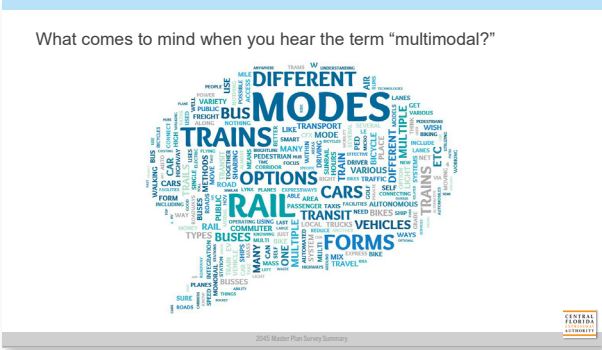
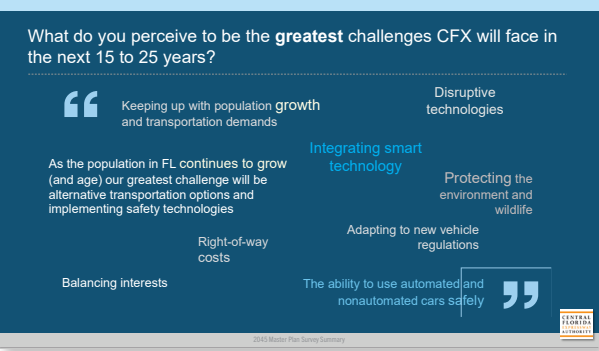
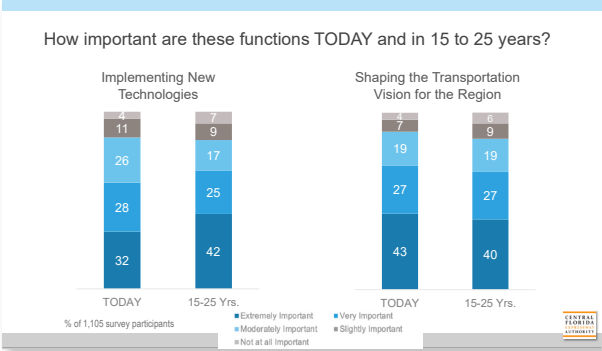
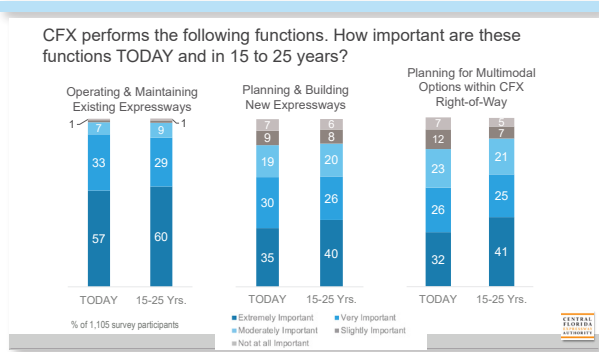
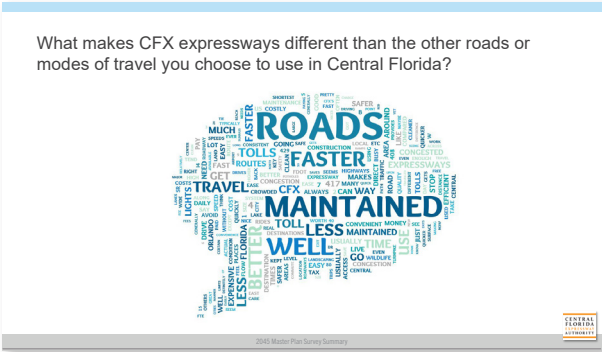
BOARD WORKSHOP 3 JUNE 2022

The final workshop held as part of the planning process for the 2045 Master Plan, in June 2022 CFX board members were presented with the results of the public input and survey process. This included input from stakeholders, community members, and business leaders from CFX's five-county jurisdiction. This public input provided the foundation for discussion of candidate projects for inclusion in the 2045 Master Plan.



BOARD WORKSHOP 3 PRESENTATION MATERIALS





## BOARD APPROVAL



## FINAL BOARD PRESENTATION MATERIALS DECEMBER 2022



### Three Board Workshops

The Future of Roads

Technology

Roadway

Automated

Connected

Shared (ACES) Evolve

Electric

CENTRAL  
FLORIDA  
EXPRESSWAY  
AUTHORITY

### 2045 Master Plan Candidate Projects

Brevard | Lake | Orange | Osceola | Seminole

### Proposed 2045 Master Plan Projects

LEGEND

Existing CFX System

Future CFX System

CFX Widening Projects (FY 2023 - 2027 Five Year Workplan)

CFX Anticipated Widening Projects by 2045

Future Palmetto Parkway/4 Connector (By 2045)

Future Brightline

### Merging of Technology + Roadway Infrastructure

Technology

Roadway

### 2045 MASTER PLAN

Widenings

### 2045 MASTER PLAN

Widenings

Interchanges

### Game Changers in Roadway Design

- Interoperability
- Connected Vehicles
- Repurposing Assets
- Reserve space for special lane(s)

### Master Plan Financial Summary

Estimated Costs (2022 dollars)

Total Cost Range	\$23.9B - \$29.2B
• FY 2023 – 2027 Work Plan	\$4.0B
• Existing System	\$2.8B
• Expansion Projects	\$17.1B - \$22.4B

CFX Project Capacity

\$12.2B

### 2045 MASTER PLAN

Widenings

Interchanges

Expansion Projects

### 2045 MASTER PLAN

Widenings

Interchanges

Expansion Projects

Planning Studies

### Recommended Motion

Board adoption of the 2045 Master Plan as presented

### 2045 Master Plan Update

Glenn Pressimone, P.E. | Chief of Infrastructure

December 8, 2022

### 2045 MASTER PLAN

Widenings

Interchanges

Expansion Projects

Planning Studies

Toll Plazas to AET

### 2045 MASTER PLAN

Widenings

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Expansion Projects

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Toll Plazas to AET

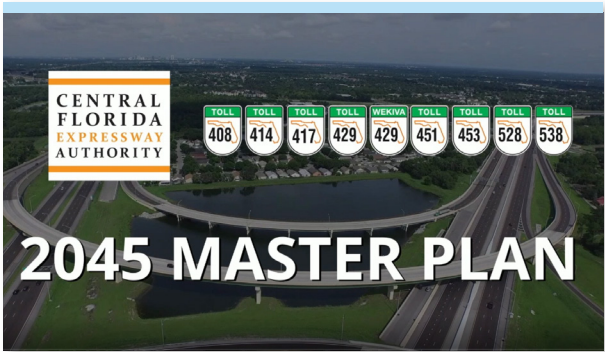
Long Range Expansion Projects

100 | Central Florida Expressway Authority 2045 Master Plan

2045 Master Plan Central Florida Expressway Authority | 101

MASTER PLAN COMMUNICATIONS

CFX communicated with the public to encourage participation in the online survey and the public input process through the website CFXway.com. Communications to support this effort included a video and media release.



2045 Master Plan Video

CFX Announces Kick Off of 2045 Master Plan Process

The Central Florida Expressway Authority (CFX) announced at the August Board meeting that the planning process for the 2045 Master Plan will commence in August 2020.

The 2045 Master Plan is a long-range planning study that identifies potential transportation projects over the next 25 years. CFX’s Master Plan guides future operations and capital investment decisions and serves as the basis for the regional toll agency’s Five-Year Work Plan.

During the first phase of the planning process, CFX will seek input from government leaders, transportation planners and other community stakeholders in Brevard, Lake, Orange, Osceola and Seminole Counties. CFX will collect data and input on various plan elements such as: existing expressway system needs, planning for future technologies, potential expansion projects, sustainability practices and multimodal opportunities.

This vital input will be evaluated and incorporated into the final plan during the second phase of the process. In previous CFX Master Plans, stakeholder input helped identify key projects that are complete or under construction, including the Wekiva Parkway and the I-4/SR 408 Interchange.

CFX Media Release, August 2020

ABOUT CFX

Tolls Paid Here, Stay Here

IMPACT BY THE NUMBERS

**\$3.2 BILLION 5-YEAR WORK PLAN**  
(Guided by the CFX long-range Master Plan)

- Funding all operations and projects solely by tolls, no taxes
- Advancing needed expansions in 5-counties to handle future growth
- Renewing existing roadways with resurfacing, widening and improvements
- Investing in future-forward operations, technologies and intermodal partnerships

**LOCAL JOB CREATION\***

- Supporting approximately 41,600 jobs
- Creating \$1.5 billion in wages and income
- Keeping 98% of jobs in private sector

**ECONOMIC IMPACT\***

- Realizing a \$3.2 billion five-year work plan
- Stimulating \$4.6 billion in Florida business
- Contributing \$2.4 billion in gross domestic product
- Reducing harmful emissions annually by \$20.8 million

**RESIDENT AND BUSINESS SAVINGS\***

- Saving area households \$33 million in annual out-of-pocket costs
- Saving businesses \$102 million annually in travel time
- Reducing \$308 million annually in accident-related costs
- Saving businesses \$11 million in fuel consumption costs

**INNOVATIVE TECHNOLOGIES**

- Preventing crashes with award-winning wrong way driving prevention technology
- Deploying 3D laser scanning technologies to clear accidents quicker
- Partnering with the Florida Connected Vehicles Initiative for advanced technologies infrastructure
- Hosting 2020 Florida Automated Vehicle Summit to advance Florida’s policies and infrastructure for connected vehicles and cybersecurity

**97% CUSTOMER SATISFACTION**

- Providing exclusive automatic volume discounts
- Offering free E-PASS toll sticker to all Florida residents
- Pioneering first continental U.S. drive-up customer service **Reload Lanes**
- Launching new toll products to meet traveling public needs:
  - Uni – One Toll Pass. 19 States.
  - GatorPass, KnightPass and NolePass college-branded passes

\*Per Feb. 2020 University of South Florida’s Center for Urban Transportation Research study.

**CFX’S BOND RATINGS**

As of June 1, 2020 are as follows:

	Ratings
Standard & Poor’s	A+
Moody’s	A1
Fitch	A+

CFX Stakeholder Meeting Leave Behind



**CFXWAY.COM**