



connections

regional mobility plan **2045**

NOVEMBER 2020



Capital Region Transportation
Planning Agency





Continued Coordination

Chapter 6

“Transportation strategies are directly and indirectly tied to the environment, economic vitality, health, social equity, and quality of life.”

Continued Coordination

Agency Coordination

Collaboration and cooperation cannot be achieved without effective coordination. Through the *RMP* process several stakeholder groups were consulted. The result is an RMP that meets or exceeds all FAST Act coordination requirements. Generally, this process included coordination with planning staff from the jurisdictions within the CRTPA region as well as state and local agencies responsible for land use management, historic preservation, transportation, as well as economic development. As the region moves forward and projects advance toward funding and implementation, CRTPA will continue to work with FDOT, FHWA, FTA, and local jurisdictions on how best to advance recommended projects and will continue to engage the public to adjust future planning efforts and project lists as necessary. Notable agency partners at the federal, state, regional, and local levels that will continue to play a role in the implementation of this plan include:

Federal Level

- Federal Highway Administration
- Federal Transit Administration
- National Forest Service

State Level

- Florida Department of Transportation: District Three and Central Office
- Florida Department of Environmental Protection; Office of Greenways and Trails
- Florida Department of Economic Opportunity
- Florida Department of Management Services
- State Historic Preservation Officer
- Florida State University; Florida A&M University; Tallahassee Community College

Local and Regional Level

- CRTPA Board, Committees, and Staff
- Local Planning Commissions
- Star Metro
- Local Emergency Service Providers (fire department, hospitals, police)
- Municipal and County Administrators
- Blueprint Intergovernmental Agency
- Tallahassee International Airport
- Local Planning Department Staff
- Local Public Works Departments
- Chambers of Commerce
- Local school boards and parent representatives
- Local historic preservation agencies

Emerging Trends

The transportation systems of cities, states, and nations are transforming. As a 2045 plan, the *RMP* must respond not only to the transportation needs as they stand today, but also to the potential for change in the future. To do this, we must look beyond current transportation strategies and technologies being leveraged to better understand what trends and shifts are on the way. This section focuses on emerging trends for both technology and resilience.

Technology

Advancement of technology will continue to have significant impacts on the CRTPA region and the infrastructure that supports it. Preparing for additional emerging transportation technology remains critical to those tasked with municipal and regional planning. Agencies continue to need tools to assess the range of possibilities and identify the most effective implementation strategies in support of those prioritized possibilities. The transportation industry is currently focused on three major areas in its preparation for emerging transportation technology:

- The Internet of Things (IoT)
- Connected, Autonomous, Shared, and Electric (CASE) Vehicles
- E-Commerce and Freight

The Internet of Things

The transportation system is quickly evolving into one built on a foundation of digital infrastructure known as the Internet of Things (IoT). The IoT is an umbrella term that refers to connected physical and digital components. IoT components can send data without the assistance of human actions. Each IoT component has a Unique Identifier (UID) that makes it recognizable. According to a 2020 article in *SecurityToday*, there are 31 billion devices that are connected to the IoT, an average of four devices per person. By 2025, the IoT is projected to grow to 75 billion devices worldwide, an average of 9.25 devices per person. There are three primary pieces of transportation infrastructure that can readily integrate with IoT devices: smart traffic signals, smart light poles, and mobile devices.

Smart traffic signals can monitor traffic conditions in real time and when connected can improve travel times. Smart light poles can be equipped with cameras and sensors that monitor parking, detect air quality, and in the future serve as supporting infrastructure for connected and autonomous vehicles. Finally, mobile devices are becoming increasingly valuable to transportation planning and management. The robust data sets being collected can detail travel patterns and behavior of the traveling public.

Connected, Autonomous, Shared, and Electric Vehicles

Connected, automated, shared, and electric (CASE) vehicles will play a major role in the future transportation system. Technology improvements will help to increase the feasibility of widespread adoption of these advanced vehicles. As the existing vehicle fleet is replaced with new vehicles equipped with this technology, transportation planners anticipate seeing improved safety outcomes and reductions in negative environmental impacts. CASE vehicles, and the infrastructure that supports them, will play a key role in achieving transportation goals as improved safety, reduced congestion, and sustainability.

While funding for projects directly related to CASE at this time is limited, CRTPA can still take several actions as an MPO to be ready for the integration of CASE vehicles. CRTPA will be in full support of collaborative efforts and policies which advance the technology levels of the region.

E-Commerce and Freight

A major contributor to the future of transportation will be roadway and curb lane demand associated with the movement of goods. Statista's Digital Market Outlook found that in 2019, U.S. online retail sales of physical goods amounted to approximately \$343 billion. Retail e-commerce sales are projected to increase to approximately \$477 billion by 2024. This will increase the number of freight vehicles that are needed to move and deliver goods. As the number of freight vehicles increases, the policies and infrastructure needed to support these vehicles will become more vital to the operation of cities. As freight increases in automation, coordination between freight operators and jurisdictions will be critical. Roadway intersections along freight routes will need to be upgraded to a fully connected intelligent transportation systems that ensure the safety of pedestrians, vehicles, and trains. As freight and e-commerce continue to increase it will be up to CRTPA to maintain an emphasis on freight travel time reliability and the corridors most critical to providing timely and efficient freight service

Right-Sizing Emerging Transportation Technologies

Preparing for future technology is not a one-size-fits-all approach. Each jurisdiction will identify policies, procedures, and infrastructure that need to be updated to respond to future transportation technology. There are two foundational questions each jurisdiction will address:

- What is the agency's level of preparation to accommodate future technology?
- What practical/strategic actions can an agency take to implement a flexible and adaptable transportation system that accommodates future technologies?

Agencies benefit when assessing themselves using these two questions. As jurisdictions evaluate their preparedness to respond to future technology, it allows them to review their current practices, capture areas of success, and identify areas that need improvement. This also allows jurisdictions to identify technology enhancements that can make their day-to-day operations easier and more efficient, ultimately saving time and money.

Many jurisdictions perform a self-evaluation of their preparedness to adopt new technology using the Capability Maturity Model (CMM) Framework. The CMM Framework uses three tenets:

- Process matters: projects fail or do not achieve desired functionality for a variety of reasons unrelated to the technology.
- Prioritizing the right actions is important: is an agency ready, how do they know, and what should they do next?
- Focus on the weakest link: what is holding the agency back in becoming a leader in a particular area?

Based on the CMM Framework, agencies evaluate their ability to advance infrastructure and processes by conducting the following steps.

Step 1: Self-Assessment. Work with your stakeholders to assess the agency or regional maturity level relative to defined assessment dimensions.

Step 2: Identify dimensions that receive a lower maturity level thereby require a higher focus to increase the maturity.

Step 3: Identify actions that can be taken to move from the current maturity level to the next.

Emerging issues and trends and the technology advancement self-evaluation framework are explored further in Appendix E: Technology, with additional detail provided on technologies, as well as a sample preparation work plan.

Resilience

In early 2019, the City of Tallahassee completed and adopted the region's first resilience plan. The *Tallahassee Community Resilience Plan* is an ambitious plan and places Tallahassee at the forefront of innovation and inclusiveness to proactively address the various pressures that threaten the City's quality of life. The Plan addresses underlying chronic stresses that affect the community, such as job, food, and housing insecurity, as well as acute shocks that include flooding, extreme temperatures, and significant storm events, especially as they intensify with changing climate conditions. The *Community Resilience Plan* sets the stage for a collective sustainable future, guided by the ideal that everyone in the community can have the opportunity to thrive, even as new challenges arise. The development of this plan followed the process identified in the US Climate Resilience Toolkit, which integrates community engagement with a data driven approach to assessing and addressing vulnerabilities.

The *RMP* provides several avenues for considering resilience at the county level, including the incorporation of resilience within the guiding principles and project prioritization process. The approach followed with the *Tallahassee Community Resilience Plan* provides CRTPA with a strong and scalable framework for conducting similar studies for jurisdictions through the four-county region – ultimately yielding a region-wide resilience strategy. The development of additional resilience plans at the municipal or county level will allow CRTPA to expand upon the resilience framework for future RMPs.

Areas for Future Study

C RTPA will carry out or participate in many studies and plans over the next four years leading to the next update of the RMP. This is not an exhaustive list of all work to be completed, but rather a list of planning efforts that will contribute to the mission of C RTPA and will likely require coordination among agencies.

M-CORES (Jefferson County)

The Multi-use Corridors of Regional Economic Significance (M-CORES) program, signed into law in May 2019, is intended to revitalize rural communities, encourage job creation and provide regional connectivity while leveraging technology, enhancing the quality of life and public safety, and protecting the environment and natural resources. The Florida Department of Transportation is studying three specific corridors as part of the M-CORES effort. One of these corridors, the Suncoast Corridor, runs from Citrus County to Jefferson County. C RTPA and its member jurisdictions will continue to play a role in the public and stakeholder involvement process as this corridor is studied further.



Intersections along Capital Circle (Leon County)

Capital Circle is a corridor of significant importance within the C RTPA area. Although two segments of Capital Circle SW are being widened within the committed portion of the plan, additional needs are anticipated to improve the safety and operations of the corridor, particularly at the intersection level. Key intersections along the corridor could be identified and studied to better understand the needs that exist at those locations and the potential recommendations for improvement. Due to the large cross-section of the roadway and its adjacent land uses, any intersection improvements along this corridor are likely to come at a high cost. This study would help the C RTPA better prioritize and program intersection funding.

South Monroe, Wahnish Way, and South Adams Street Transportation Studies (Leon County)

The area south of Gaines Street in Tallahassee has been experiencing significant infill and redevelopment in recent years. This new development and planned improvements within the area and the FAMU Campus are likely to impact existing travel patterns. South Monroe Street, South Adams Street, and Wahnish Way are the significant north/south corridors in the area which are likely to be impacted as this area changes. Orange Avenue is a major east/west corridor in this area, however several projects and improvements have been identified within the RMP to address this corridor.

Northeastern Transportation Study - Centerville Road, Miccosukee Road, and the potential implications of Welaunee Boulevard extension (Leon County)

As described within the RMP, the expansion of Welaunee Boulevard and its potential connection with I-10 are expected to modify travel patterns in northeastern Tallahassee area. The expansion of this route is anticipated to relieve current commuter routes and promote additional development along the Welaunee Blvd corridor. As such, the development of a northeastern Tallahassee transportation study would be beneficial for the region and the future development nearby I-10.

Congestion Management Process Recommended Studies (Leon County/Regional)

Although several site-specific project recommendations were developed to address acute issues in other counties, the general study recommendations were concentrated within Leon County. The following studies have been recommended that could improve regional travel conditions.

- US 27/N. Monroe St. from John Knox Rd to I-10 – Capacity Improvement Feasibility Study
- US 90/Mahan Dr at Capital Circle NE – Intersection congestion study to better understand the improvements needed for this intersection and the potential funding opportunities for subsequent project phases.
- Thomasville Rd at N Monroe St – Intersection congestion study to determine accessibility issues and the inclusion of ITS technologies.

Additional areas of study may be identified as the second phase of the Congestion Management Process is completed.

Bloxham Cutoff Road Trail (Wakulla County)

The Bloxham Cutoff Road Trail is proposed to run between Wakulla Springs State Park to the St. Marks Trail. The project is currently identified in the C RTPA Priority Project List and funds have been set aside to conduct a feasibility study. The Bloxham Cutoff Road Trail would offer a non-motorized connection between the St. Marks Trail and Wakulla Springs.

Oak Ridge Road Trail (Leon County)

The Oak Ridge Road Trail is proposed to extend between Crawfordville Road and Woodville Highway. The project is currently identified in the CRTPA Priority Project List with funding set aside for a feasibility study. The Oak Ridge Road Trail will connect the improvements along Crawfordville Road, connect over to the existing St. Marks Trail, and connect the southernmost area of Leon County to existing multimodal facilities. This project was also heavily supported by residents along Oak Ridge Road during the 2019 Tallahassee-Leon County Bicycle and Pedestrian Master Plan development.

Apalachee Parkway Trail Connector (Leon County)

The Apalachee Parkway Trail Connector is proposed to extend between Sutor Road and Conner Boulevard. This connector is currently identified in the CRTPA Project Priority List, and funds have been set aside for a feasibility study in 2021. The Apalachee Parkway Trail Connector will link two roads with existing multimodal facilities. In addition, this facility would also have the possibility to connect to the proposed realignment of Southwood Plantation Road which will include an adjacent shared-use path.

GF&A Trail Corridor (Regional)

The GF&A Corridor is proposed to extend from Bloxham Cutoff Road to the Franklin County line. This project was adopted in Capital City to the Sea Trails Master Plan and was also adopted as a priority trail in the SUNTrails network. The GF&A Trail Corridor would help expand Leon County and Wakulla County investments to the county line with Franklin, where additional feasibility studies have taken place to expand the network to the coast.

N. Martin Luther King Jr. Boulevard (Leon County)

The segment of N. Martin Luther King Jr. Boulevard between W. Brevard Street to W. Tennessee Street is a route commonly used by existing bicyclists. However, there is a history of bicycle fatalities along this corridor. Additional study should be given to identify the mitigation measures needed to address these safety issues.

Boston Highway (Jefferson County)

Non-motorized improvements are desired on the segment of the Boston Highway running from the Georgia State Line to US 19. This link connects the City of Monticello north to Georgia. These improvements were proposed and adopted in the Jefferson County Bicycle and Pedestrian Master Plan. Non-motorized improvements on the Boston Highway would complement the existing Monticello Bike Trail and the current PD&E Study to extend that facility south to the Jefferson County Middle/High School along US 19.

Conclusion

The *RMP* envisions a region that ensures equitable access to reliable transportation, provides a wide variety of travel options, and promotes a high quality of life. This plan is a regional vision for mobility that supports economic development and system efficiency, while placing a new focus on safety and ITS projects.

Included in the *RMP* are transportation strategies that consider the existing and future needs of residents, visitors, and employers. The creation of this financially constrained plan ensures that the identified projects can be reasonably funded during the life of the *RMP* and the priorities expressed throughout the public involvement process will influence the region's transportation planning decisions.

As the region moves forward and projects advance toward funding and implementation, CRTPA will continue to work with FDOT, FHWA, FTA, and its member jurisdictions to determine how best to advance recommended projects while engaging the public and adjusting future planning efforts and project lists as necessary. Ultimately, continued collaboration between state and local agencies will provide more opportunities to foster a safe and accessible multimodal transportation system that makes the CRTPA region an attractive place to live.