



# City of Tallahassee

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## Regional Transportation Management Center



## Our Mission

Our mission is to provide our citizens with safe, reliable, and efficient mobility throughout the Florida Panhandle Region. We achieve this by actively managing our arterial roadways using intelligent transportation systems (ITS) technology, communications infrastructure, and highly qualified staff who are dedicated to operating and maintaining the system.

**Vision** –To maximize the transportation system safety, efficiency, and performance, using innovative technologies and regional collaboration to promote reliable mobility throughout the vibrant capital city region.

## Active Arterial Management

As the largest city in the Florida Panhandle Region and the only incorporated municipality in Leon County, Tallahassee continuously strives to innovate and integrate technology for the purpose of operating, improving, and managing the existing multi-modal transportation system. Active Arterial Management (AAM) is a great example of how City of Tallahassee staff at the Regional Transportation Management Center (RTMC) leverage technology to keep Tallahassee moving. AAM is an integrated approach to optimize the performance of the existing roadway infrastructure through implementation of systems, services, and projects that preserve capacity and improve the security, safety, and reliability of the transportation system.

The RTMC serves as the control center for the Tallahassee Advanced Transportation Management System (TATMS), the traffic management system that controls 360 traffic signals in the Tallahassee area, with more signals being added every year. The City operates and maintains signals owned by the City of Tallahassee, Leon County, Gadsden County, Florida State University, and the Florida Department of Transportation (FDOT). RTMC personnel optimize the arterial network by dedicating human and technological resources to monitor, identify, and address causes of recurring and non-recurring congestion on a real-time basis.

In July 2020, FDOT consolidated all freeway management systems control to the Northwest Florida Regional Transportation Management Center (NWFRTMC). In an effort to continue AAM in the Leon County area, a Joint Participation Agreement (JPA) was executed to enhance active arterial management of the state highway system within the Leon County region. The RTMC also provides a backup, redundant system for monitoring the

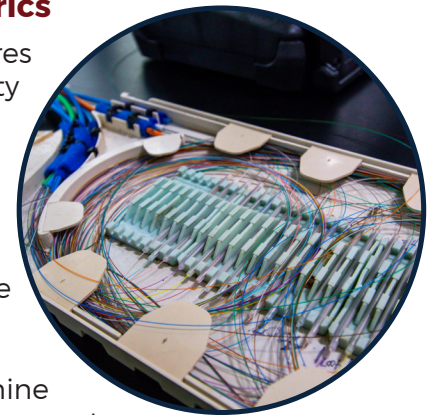
FDOT District 3's Freeway Management System. As a designated FDOT Satellite Transportation Management Center (STMC), the Tallahassee RTMC serves as the emergency backup for the Northwest Florida RTMC. The Tallahassee RTMC allows for center-to-center communications with the District 3 Northwest Florida RTMC in Chipley, Florida and the FDOT Central Office.

Active Arterial Management results in cost-effective roadway performance, improved safety, reduced excess delay on arterials, real-time traffic management, and seamless coordination with operating agencies. AAM operations contribute to the reduction in congestion due to incidents, both planned (e.g. football games, local events, etc.) and unplanned (e.g. hurricane evacuations, crashes, etc.) through real-time congestion management, reducing the duration of disruptions, and improving traffic flow.

## Performance Based Operations and Maintenance

### Performance Metrics

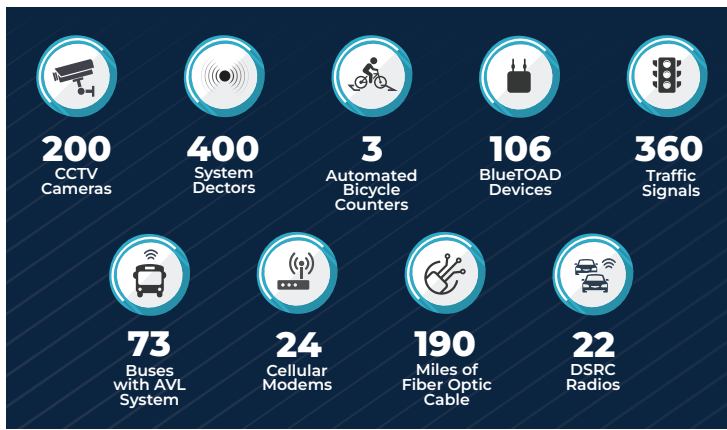
Performance measures provide accountability to the public and enhance communication between the operators and users of the system. Monthly performance measurements are important tools used by the City to determine progress, detect and correct issues, and document accomplishments related to AAM. Several performance measure requirements and goals are used by the City to monitor and report on the quality and timeliness of operations and maintenance services provided for AAM.



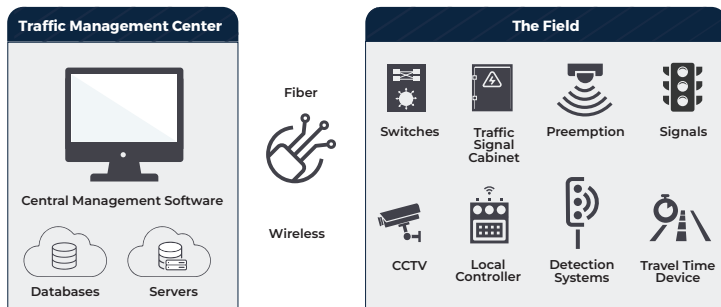
### Intelligent Transportation Systems Devices

The City of Tallahassee operates and maintains a wide array of intelligent transportation systems (ITS) and signal system elements. ITS infrastructure includes a variety of field devices such as traffic signals, cameras, fiber optic communications, and central management software that communicate back to a central management system for monitoring and control. The ITS field devices are the most visible components of the system. These ITS technologies are widely deployed throughout the Tallahassee region to support AAM and are used for traffic monitoring, detection, and traveler information.

## The City currently operates and maintains:



The City of Tallahassee's communication infrastructure is comprised of approximately 190 miles of fiber optic cable. Fiber optic cable is the main method of communication for the majority of the City's ITS network, as it links field devices back to the RTMC. For areas that lack fiber optic cable, the communications network is augmented using cellular communications.



## The Team

Staff monitor and manage the AAM network using the systems, software, and other resources provided at the RTMC. A growing team of passionate individuals work together daily for real-time congestion management and to coordinate with local responders.

- ▶ RTMC Manager
- ▶ Signal Timing Engineers
- ▶ Traffic Operations Specialists
- ▶ AAM Operators
- ▶ ITS Maintenance Technicians
- ▶ Network Administrator

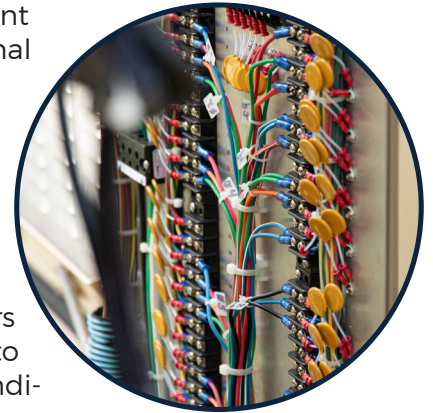
## Operations

ITS devices and the communications network provide the physical infrastructure needed for the operations of AAM. AAM includes an array of traffic management and control strategies that improve operational efficiency. These strategies are used to:

- ▶ Maximize safety and traffic flow across Tallahassee's regional transportation network
- ▶ Optimize the use of the existing infrastructure

- ▶ Provide dependable and timely travel information for motorists to improve trip reliability
- ▶ Maximize the use of capacity and have more effective timing signal timing adjustments during fluctuations in traffic volume throughout the day, congestion, special events, and incidents
- ▶ Balance the needs of all travel modes (including pedestrians, bicycles, transit) and emergency services
- ▶ Allow for integrated congestion management of roadway facilities across the transportation network through the use of Automated Traffic Signal Performance Measures (ATSPM) and real-time reliability monitoring

The most predominant strategy is Active Signal Retiming. RTMC personnel use advanced applications to coordinate traffic progression along the City's arterial network. Staff rely on traffic signal detectors at each intersection to provide a real-time indication of vehicular presence and speeds. This information is communicated back to the RTMC for AAM operators to actively monitor traffic conditions, address incidents, and identify techniques to mitigate congestion. Signal retiming is usually completed every three to five years to accommodate growth in local population and area developments.



## Maintenance

The City maintains the ITS devices in a manner that will ensure efficient operations and effective monitoring of traffic. The City performs maintenance activities including, but not limited to preventative maintenance (periodic inspection, service, and incidental repairs), responsive maintenance (services and actions in the event of typical equipment malfunction, failure, or damage), and emergency maintenance (services and actions in the event of major equipment malfunction, failure, or damage).



## Coordination with Local Responders

The RTMC is located within the Public Safety Complex (PSC), jointly owned by Leon County and the City of Tallahassee. The PSC is a 100,000 square foot multi-purpose facility located at 911 Easterwood Drive, Tallahassee, FL 32311. This unique facility co-locates a number of key public safety related agencies and centers including:

- ▶ City of Tallahassee Regional Transportation Management Center (RTMC)
- ▶ Consolidated Dispatch Agency
- ▶ Leon County Emergency Medical Services Administration
- ▶ Operations Building for Emergency Medical Services
- ▶ City of Tallahassee Fire Department Administration
- ▶ Leon County Emergency Operations Center
- ▶ City of Tallahassee Emergency Management
- ▶ Consolidated Data Center

As an emergency services building, the facility is designed to be able to withstand winds from a Category 3 hurricane or an F4 tornado, which means the glass windows are designed to resist a 15-foot, 2x4 at a 100-mph impact.

The co-location of the RTMC with other key public safety agencies and centers in the PSC allows for faster and increased communication between these agencies especially during emergencies.

As the RTMC is located in a hardened and self-sufficient building, operations continue during emergencies or extreme weather events such as hurricanes. During these events the RTMC provides insight of real-time field conditions, improve safety of roadway users and responders, and provide information to help decision-making by officials.



## Dissemination of Traveler Information

Tallahassee has always been at the forefront of disseminating traffic information to the public as evidenced in the on-line Driver Information System that maps real-time traffic conditions, dynamic message signs, the @COTTraffic Twitter feeds, and the overall information sharing through technical papers and write-ups found on our website. The RTMC and supporting ITS technologies facilitate real-time information that allow the City to further inform the travelling public with the goal of improving traffic movement within the Tallahassee/Leon County region.

### Contact Us

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