



TALLAHASSEE-LEON COUNTY Intelligent Transportation Systems Master Plan

SEPTEMBER
2020



Kimley»Horn

Overview

The goal of the ITS Master Plan is to identify strategies and tools to enable the City to manage the regional transportation network more efficiently. ITS includes communications and field technologies that are integrated into the transportation network such as traffic signals, cameras, fiber optic communications, and central management software. ITS technologies are widely deployed throughout the Tallahassee region and the City is in a unique position to create a plan to expand its ITS program as it continues to grow in population. As the largest city in the 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.

Benefits

As the City continues this trend to be at the leading edge of traffic management it is important to recognize the benefits of an expanded ITS program:

- Improving the safety and reliability of the regional Tallahassee transportation network
- More travel information to the general public resulting in an elevated travel experience for motorists, transit riders, bicyclists, and pedestrians
- The opportunity to coordinate with City departments to share data and projects beneficial to each other's operations
- Leveraging the program to collaborate with agencies in the region on initiatives to provide quality services to the public

Vision

Maximize the transportation system efficiency and performance using innovative technologies and regional collaboration to promote reliable mobility throughout the vibrant capital city region.

Tallahassee Leon County ITS Master Plan

Executive Summary

97 CCTV Cameras

80 BlueTOAD Devices

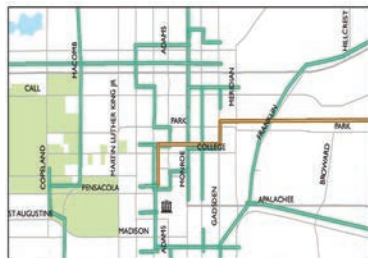
357 Traffic Signals

190 Miles of Fiber Optic Cable

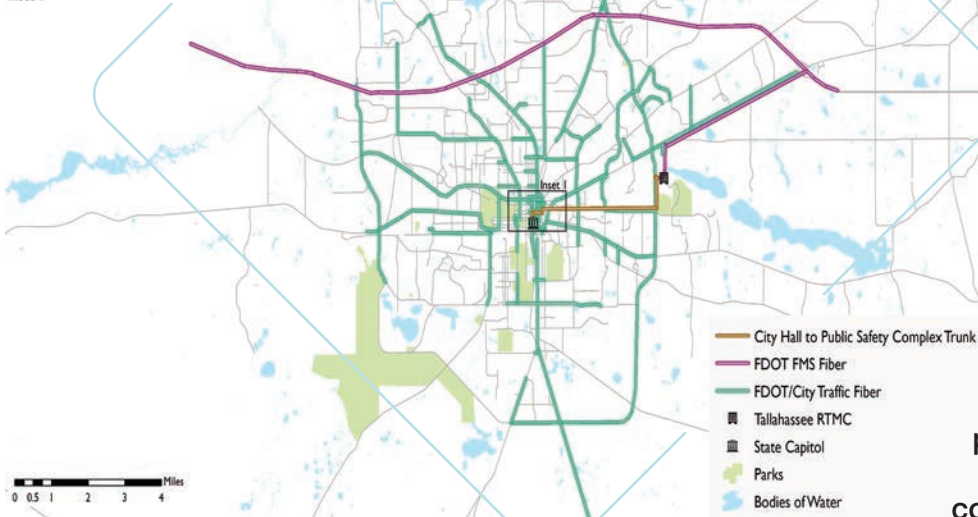
22 DSRC Radios

3 Automated Bicycle Counters

73 Buses with AVL Systems



Inset I



Project Recommendations

The following series of ITS projects proposed for future deployment have been developed based on the needs assessment, stakeholder input, direction from the City, and industry best practices. These recommendations are envisioned to meet the needs and challenges of the City's transportation system. The established vision and objectives were used as guiding principles to develop the proposed projects.

The implementation plan shown in the table to the right provides guidance to assist the City in implementing the recommendations in a prioritized and efficient manner. The City's strategic approach includes a deployment implementation plan of devices in new areas of the City, sufficient communications network for the additional expansion, and leveraging existing projects to facilitate expansion.

Prioritization Criteria

A methodology was developed to provide a consistent approach to prioritizing project recommendations demonstrating fiscal responsibility and accountability. All recommended projects identified were scored and prioritized using the below prioritization criteria.



Safety

40%



Mobility

25%



Accountability

25%



Regional
Support

25%

Staffing Plan

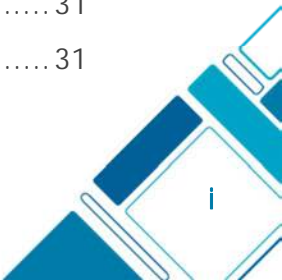
In addition to identifying ITS infrastructure needs, this ITS Master Plan identifies appropriate staffing levels that will allow the City to manage its traffic signal system and ITS network and to support the traveling public more effectively. The number of traffic signals in the City has steadily increased without a corresponding increase in staff to operate and maintain them. This has created a situation where the City is understaffed for both operations and maintenance of the traffic signal system and ITS network. This Master Plan recommends one additional Traffic Signal Timing Engineer, one additional Traffic Operations Specialist, one Traffic Operations Analyst, and two additional ITS Maintenance Technicians to account for staffing needs as the ITS Program grows.

Implementation Plan

	Project Title	Estimated Cost
Near-Term (2-5 year horizon)	CCTV Camera Upgrade CCTV Cameras - Phase 1 Adaptive Traffic Signal Control (US 90) Traffic Signal Management Plan	
	Near Term Subtotal	\$2,670,000
Mid-Term (5-10 year horizon)	I-10 Trailblazers Cabinet Upgrades Smart Work Zones Transit Signal Priority CCTV Cameras - Phase 2 Travel Time Reliability System - Phase 1 Travel Time Reliability System - Phase 2	
	Mid-Term Subtotal	\$9,517,000
Long-Term (over 10-year horizon)	Adaptive Traffic Signal Control (US 27) Connected Vehicle Infrastructure Managed Field Ethernet Switch Replacement Communications Network – Redundancy Expansion Website Connectivity	
	Long-Term Subtotal	\$12,210,000
Programmatic Projects (yearly recurrence)	ATMS Upgrades ATSPM Dashboard/Performance Monitoring System Detectors FYA Upgrades Bicycle Detection	
	Programmatic Subtotal	\$390,000

Table of Contents

- Introduction 1
 - Document Organization 1
 - Project Process 2
- Stakeholder Coordination..... 3
- Vision, Goals, and Objectives 4
- Existing Conditions 6
 - System Overview..... 6
 - City of Tallahassee..... 8
 - ITS Infrastructure 8
 - Communications 8
 - Traffic Management Center 15
 - Traffic Signals 16
 - Bicycle Technology..... 17
 - Transit 18
 - Florida State University 18
 - FSU Parking Technology..... 20
 - FSU Transit Technology..... 20
 - FSU Bicycle Technology 20
- Needs Assessment..... 21
 - Safety and Mobility Needs..... 21
 - Congestion Data 21
 - Safety Data..... 27
 - Priority Corridors..... 28
 - Additional ITS Needs..... 28
 - Emerging Technology Considerations 29
 - Communications for Autonomous and Connected Vehicles 29
 - Network Architecture Enhancement 30
- Recommendations..... 31
 - Project Identification..... 31



Traffic Management	32
Adaptive Traffic Signal Control	32
System Detectors	34
CCTV Cameras	35
Smart Work Zones	39
Flashing Yellow Arrows	40
Travel Time Reliability System Expansion	41
Cabinet Upgrades	44
Managed Field Ethernet Switch Replacement	44
Connected Vehicle Infrastructure	45
ATMS Upgrades	46
Transit Management	46
Transit Signal Priority	47
Traveler Information	48
Website Connectivity	48
I-10 Trailblazers	49
Performance Measures	50
Bicycle Detection	52
Transportation Management Center	54
Communications	55
Bandwidth Demand	55
Communications Network – Redundancy Expansion	56
Budgetary Estimates	60
Implementation Plan	62
Prioritization Criteria	62
Project Ranking	67
High Level Deployment Plan	68
Staffing Plan	69
Conclusion	72

List of Tables

Table 1: Stakeholder List	3
Table 2: Master Plan Goals and Objectives.....	4
Table 3: City of Tallahassee ITS Devices	8
Table 4: Top Bottleneck Locations	22
Table 5: Crash Type by Location.....	27
Table 6: Average Bicyclists per Hour – 2014 to 2018	53
Table 7: Preliminary Bandwidth Analysis	56
Table 8: Estimated Project Costs	60
Table 9: Safety Criteria	63
Table 10: Mobility Criteria.....	64
Table 11: Accountability Criteria.....	65
Table 12: Prioritization Rubric	66
Table 13: Secondary Prioritization Rubric – Geographic Projects	66
Table 14: Project Ranking	67
Table 15: Project Deployment Timeframes.....	68
Table 16: Proposed City Staffing Levels	70

List of Figures

Figure 1: Tallahassee ITS Master Plan Process.....	2
Figure 2: City of Tallahassee Location Map	7
Figure 3: BlueTOAD Device Locations.....	10
Figure 4: CCTV Camera Locations	11
Figure 5: Signalized Intersections – Countywide	12
Figure 6: Signalized Intersections – Downtown	13
Figure 7: Existing Fiber Network.....	14
Figure 8: Tallahassee RTMC.....	15
Figure 9: Bicycle Technology.....	17
Figure 10: SPaT Corridor	19
Figure 11: AM Peak TTI – Countywide.....	23
Figure 12: AM Peak TTI – Downtown	24
Figure 13: PM Peak TTI – Countywide.....	25
Figure 14: PM Peak TTI – Downtown	26
Figure 15: Network Topology Layouts	30
Figure 16: Proposed Adaptive Corridors.....	33
Figure 17: Proposed CCTV Camera Locations	38
Figure 18: Mobile Camera Trailer.....	39
Figure 19: Flashing Yellow Arrow.....	40
Figure 20: Five-Section Head	40

Figure 21: Travel Time Detection Concept	41
Figure 22: Proposed Bluetooth Locations	43
Figure 23: Proposed Fiber Extension	58
Figure 24: Proposed Topology and Hub Locations	59
Figure 25: Excerpt from FHWA Guidelines for Staffing (2009).....	70

List of Appendices

Appendix A:	Stakeholder Meeting Materials
Appendix B:	Project Cost Estimates
Appendix C:	Detailed Project Scoring

Acronym List

AADT	Average Annual Daily Traffic
AAM	Active Arterial Management
APC	Automated Passenger Counter
ATC	Advanced Traffic Controller
ATIS	Advanced Traveler Information Systems
ATMS	Advanced Transportation Management System
ATSC	Adaptive Traffic Signal Control
ATSPM	Automated Traffic Signal Performance Measures
AV	Autonomous Vehicle
AVL	Automatic Vehicle Location
CCTV	Closed Circuit Television
CIP	Capital Improvement Program
CV	Connected Vehicle
DMS	Dynamic Message Sign
DSRC	Dedicated Short Range Communication
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FMS	Freeway Management System
FSU	Florida State University
FYA	Flashing Yellow Arrow
IP	Internet Protocol
ITS	Intelligent Transportation Systems
LPR	License Plate Readers
MVDS	Microwave Vehicle Detection System
NCHRP	National Cooperative Highway Research Program
OBU	On-Board Unit

PSC	Public Safety Complex
RITIS	Regional Integrated Transportation Information Systems
RSU	Roadside Unit
RTMC	Regional Transportation Management Center
RWIS	Road Weather Information System
SHS	State Highway System
SPaT	Signal Phasing and Timing
TATMS	Tallahassee Advanced Transportation Management System
TOC	Traffic Operations Center
TSM&O	Transportation Systems Management & Operations
TSP	Transit Signal Priority
UTCS	Urban Traffic Control System
V2I	Vehicle-to-Infrastructure
V2V	Vehicle-to-Vehicle

Introduction

The City of Tallahassee's established history of investing in Intelligent Transportation Systems (ITS) began in 1999 with the original installation of a City-funded advanced transportation management system (ATMS), fiber optic cable, and arterial traffic cameras. Today, the City remains at the leading edge of transportation management. As the largest city in the 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.

Tallahassee is home to both Florida A&M University and Florida State University, as well as the Florida State Capitol. On any given day, the diverse population of Tallahassee, including over 67,000 students, legislative members, and local residents, relies on the transportation network. Maintaining a technologically advanced ITS and a robust communications network are essential to manage a safe and reliable transportation system in the state's capital city. As the future growth of Tallahassee is inevitable, strategically planning for it is essential.

The City of Tallahassee partnered with the Capital Region Transportation Planning Agency (CRTPA) to develop this ITS Master Plan and identify opportunities to expand and develop technology to support City operations and accommodate the growing demand on the mobility infrastructure. The purpose of this document is to provide a comprehensive roadmap for planning, development, and implementation of ITS technologies and communications assets.

DOCUMENT ORGANIZATION

This document is organized into the following major sections:

- **Introduction:** This section provides an overview of the project, summarizes the plan's purpose, and documents the process used to develop this plan.
- **Stakeholder Coordination:** This section discusses the vision and operational goals identified by key project stakeholders.
- **Existing Conditions:** This section details the information collected during the course of this effort to document how the City currently operates with respect to ITS.
- **Needs Assessment:** This section identifies the needs identified based on stakeholder input.
- **Deployment Recommendations:** This section includes the methodology for project development and proposed device locations.
- **Prioritized Implementation Plan:** This last section identifies the schedule, partnerships, and funding required to support the recommended projects.

PROJECT PROCESS

The process of developing this ITS Master Plan was a phased approach. Figure 1 displays the major milestones that occurred during this process. Each section of this Plan corresponds to a major milestone and provides more details on the methodology and summarizes all relevant data.

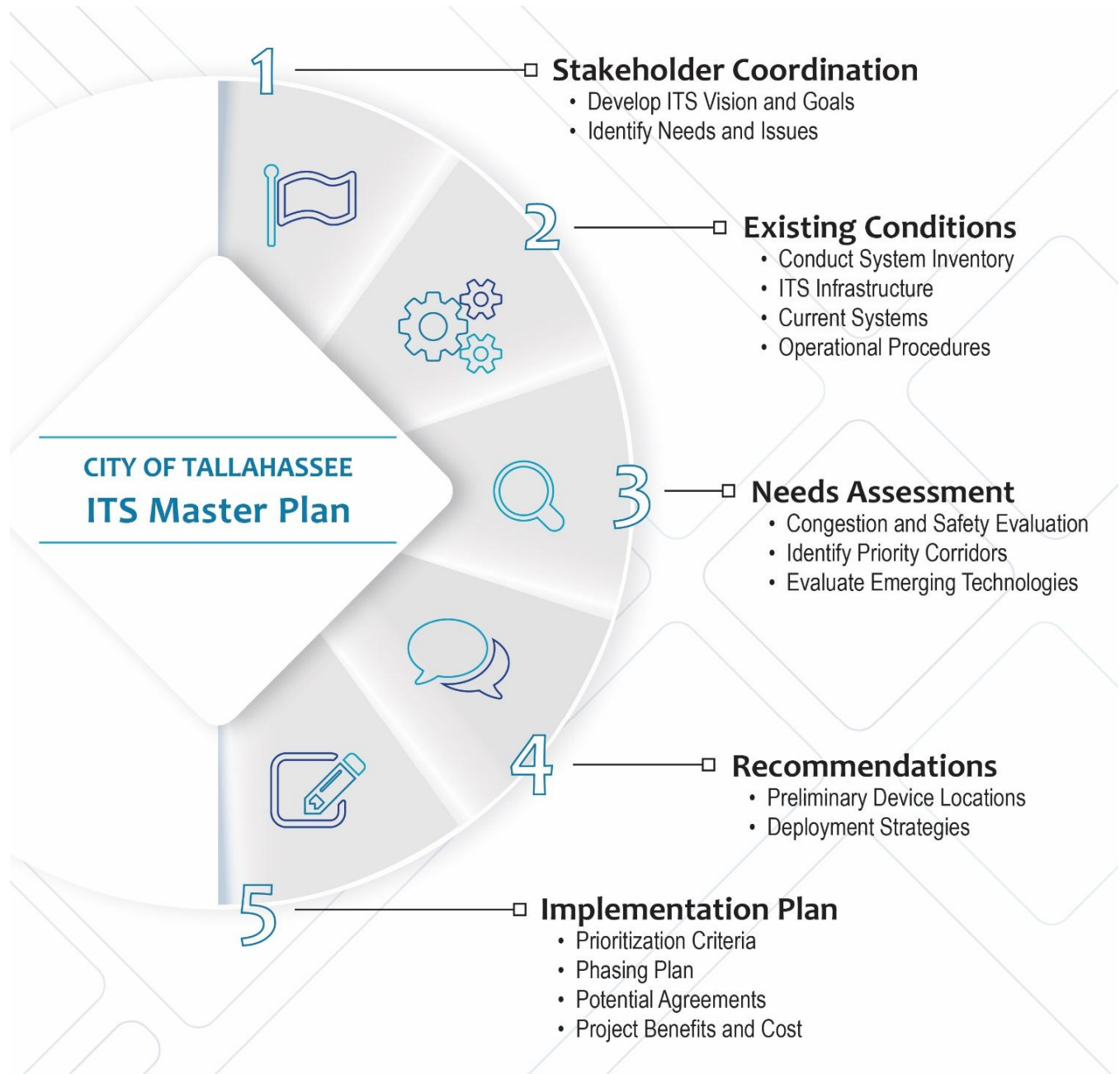


Figure 1: Tallahassee ITS Master Plan Process

Stakeholder Coordination

The ITS Master Plan process began with a kick-off meeting to engage relevant stakeholders in a discussion on the City's existing ITS. This effort was facilitated to collect data and gather information on existing City infrastructure and devices, day-to-day operational procedures, future planned and programmed projects for both the City and adjacent agencies (Leon County, FDOT District 3). The information gathered gave insight to the existing and expected countywide conditions.

The main objectives of the initial meeting were to bring together key stakeholders to discuss the current inventory of ITS devices in the Tallahassee metro area and establish the underlying vision, goals, and objectives for the ITS Master Plan. The attendees also provided insight on processes and current coordination between the various departments in the City to support traffic, incident, work zone, and special event management. The insight helped identify needs and gaps in the existing system. The list of attendees is shown below in Table 1.

Table 1: Stakeholder List

AGENCY	DEPARTMENT
City of Tallahassee	Traffic Operations
Capital Region Transportation Planning Agency	--
City of Tallahassee Transit	StarMetro
City of Tallahassee	Traffic Engineering
City of Tallahassee	Growth Management
Leon County	Public Works
Leon County	Growth Management
Florida Department of Transportation	Central Office TSM&O
Florida Department of Transportation	District 3 Traffic Operations

The stakeholders were crucial in providing a background of the City's ITS and its role in the region. Through this engagement, a comprehensive system inventory was completed and summarized in the sections that follows. Handouts, presentation material, and meeting notes from this meeting are provided in **Appendix A**.

A second workshop to review project recommendations and the high-level implementation plan was also held. The workshop provided information about existing and future needs for the City of Tallahassee ITS and introduced the high-level project recommendations. During the workshop participants discussed each of the recommendations and provided feedback for inclusion and refinement. The attendees scored recommendations on a priority scale from one to three, with

one being the lowest priority and three being the highest. The priority ranking assigned by each of the stakeholders were averaged and included in the final project ranking.

Vision, Goals, and Objectives

The information and guidance provided during the stakeholder workshops steered the development of the City of Tallahassee ITS Master Plan vision. This vision was used to guide the development of ITS project recommendations and as a means to clearly define a focus and direction moving forward. The ITS Master Plan vision defines the future of ITS in Tallahassee:

Vision

Maximize the transportation system efficiency and performance using innovative technologies and regional collaboration to promote reliable mobility throughout the vibrant capital city region.

Statement

Goals and objectives were also established consistent with input gathered from stakeholder discussions. Table 2 summarizes the goals and objectives for this Master Plan. These goals and objectives are derived from the vision stated above and form the framework for implementation strategies by establishing manageable and tangible statements. The recommended ITS projects and solutions developed through the ITS Master Plan strive to achieve these goals and objectives.

Table 2: Master Plan Goals and Objectives

GOAL	OBJECTIVE
Document Opportunities for Considering Deployment of New Technologies	<ul style="list-style-type: none">• Identify technologies that may be appropriate to integrate into the system in the future• Develop deployment strategy for future implementation• Stay at the forefront of technology to provide system users with more traveler information
Partner Internally and Externally	<ul style="list-style-type: none">• Coordinate with City departments to share data and projects beneficial to each other's operations

GOAL	OBJECTIVE
	<ul style="list-style-type: none">• Collaborate with agencies in the region on initiatives to provide quality services to the public• Leverage existing projects
Establish a Strategy for Future Deployment of Additional Equipment	<ul style="list-style-type: none">• Include deployment implementation plan of devices in new areas of the City• Include sufficient communications network for additional expansion• Develop high-level funding expenditure plan for deployment of future equipment

The continued maturity of the City's ITS, and the ongoing evolution of technologies will require the City to refocus and develop refined ITS goals and objectives to enhance the longevity and sustainability of the system.

Existing Conditions

The City of Tallahassee owns, operates, and maintains a wide array of ITS and signal system elements. The City's signal system has evolved from a mainframe Urban Traffic Control System (UTCS) in a small office at City Hall to a full featured advanced transportation management system (ATMS) supporting arterial management, freeway management, advanced traveler information systems (ATIS), and incident management systems. This system is housed in the Tallahassee Regional Transportation Management Center (RTMC) at the Tallahassee-Leon County Public Safety Complex (PSC).

The sections that follow describe the existing City ITS infrastructure, systems, and operational procedures. Data collection to support this inventory consisted of gathering City maps, stakeholder engagement, reviewing Capital Improvement Program (CIP) lists, and various other documents to provide insight into the existing ITS conditions. This section provides a comprehensive picture of the ITS existing conditions and communications network throughout the City as of June 2018.

SYSTEM OVERVIEW

Actively managed arterials and the array of bus, bicycle, and pedestrian facilities all compose the City's multimodal transportation network. The City offers a wide network of roadways (highlighted in **Figure 1**) including Interstate 10 (I-10), US Route 27, US Route 90, US Route 319, State Road 20 (SR 20), State Road 61 (SR 61), and State Road 363 (SR 363). Along this extensive roadway network, the City of Tallahassee operates and maintains ITS infrastructure owned by the following entities:

- City of Tallahassee
- Leon County
- Gadsden County
- Florida State University
- Florida Department of Transportation (FDOT)

The sections that follow detail the ITS infrastructure operated and maintained by the different city agencies including the City of Tallahassee, StarMetro, and Florida State University.

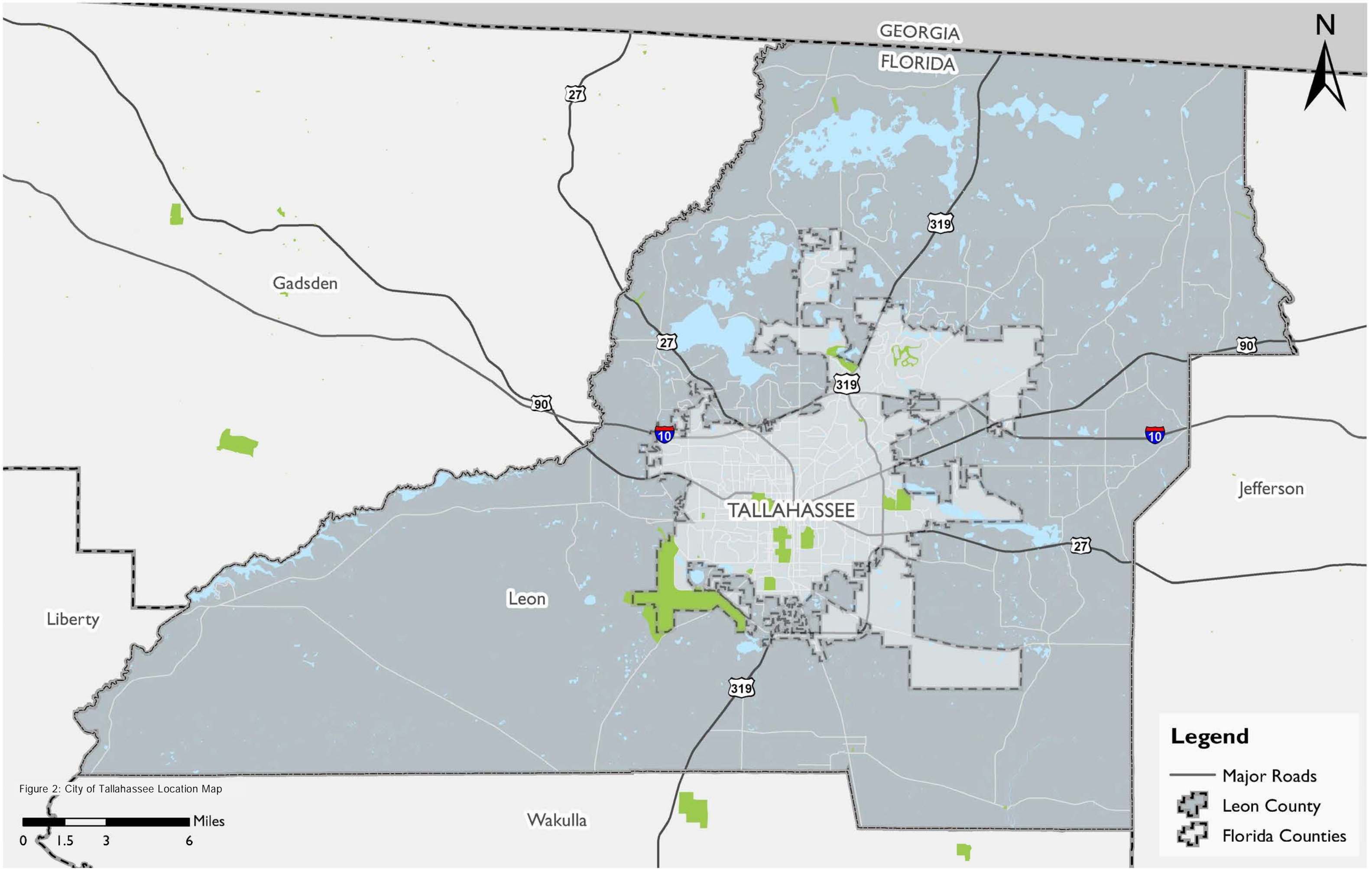


Figure 2: City of Tallahassee Location Map

0 1.5 3 6 Miles

- Legend**
- Major Roads
 - Leon County
 - Florida Counties

CITY OF TALLAHASSEE

ITS Infrastructure

The ITS field devices are the most visible components of the system. ITS infrastructure includes dynamic message signs (DMS), closed circuit television (CCTV) cameras, and traffic signal controllers. The devices are used for traffic monitoring, detection, and traveler information.

The City currently operates and maintains 357 traffic signals, 97 CCTV cameras, and 80 BlueTOAD devices. In 2008, the City entered into a Joint Participation Agreement with FDOT, which identified the I-10 corridor as a site for an ITS Freeway Management System (FMS). The FMS elements along the 19-mile stretch of I-10 in Leon and Gadsden counties include 26 CCTV cameras, 51 microwave vehicle detection devices (MVDS), eight DMSs, eight license plate readers (LPR), and one Road Weather Information System (RWIS). All devices, listed in the table below, are connected to the telecommunications infrastructure and linked to the RTMC for monitoring by the City.

Table 3: City of Tallahassee ITS Devices

DEVICE	CITY	FMS
Traffic Signals	357	-
System Detectors	400	-
CCTV Cameras	97	28
Dynamic Message Signs	1	8
BlueTOAD	80	-
Microwave Vehicle Detection System	-	51
Universal Power Supply	98	19
Fiber Optic Cable	190 miles	-
Cellular Communications	24 Verizon Cell Modems	-

Figure 3 through Figure 6 provide an overview of the locations of these devices.

Effective July 2020, the City and the Department transitioned FMS control to the Northwest Florida Regional Transportation Management Center (NWFRTMC). A new Joint Participation Agreement (JPA) was executed with FDOT for the expansion of the Active Arterial Management (AAM) Program. This program, operated by the City, will monitor and control traffic flow along the State Highway System (SHS) within the Leon County region.

Communications

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 all field devices back to the TMC. The ATMS fiber infrastructure

includes seven existing fiber-optic trunk lines, with fiber counts on each cable varying throughout the City (36-72 strands) and terminate at City Hall downtown. A 144 and 288 count underground trunk connects City Hall to the RTMC. A fiberoptic backbone was also installed along I-10 and US 90 from western Gadsden County to the RTMC. This 96-fiber trunk line expanded the City's current ATMS by incorporating the interstate system. In 2020 FDOT will connect the NWFRTMC fiber to the Tallahassee FMS fiber. FDOT District 2 will complete a project to expand the Tallahassee fiber optic backbone to the Madison County line providing the NWFRTMC with complete FMS coverage from the Alabama state line throughout District 3.

ATMS communication is additionally enhanced using 24 cellular modems. These devices are located throughout the City where fiber optic cable was determined not feasible due to cost, time, or physical obstacles. Figure 7 provides an overview of the current fiber network.

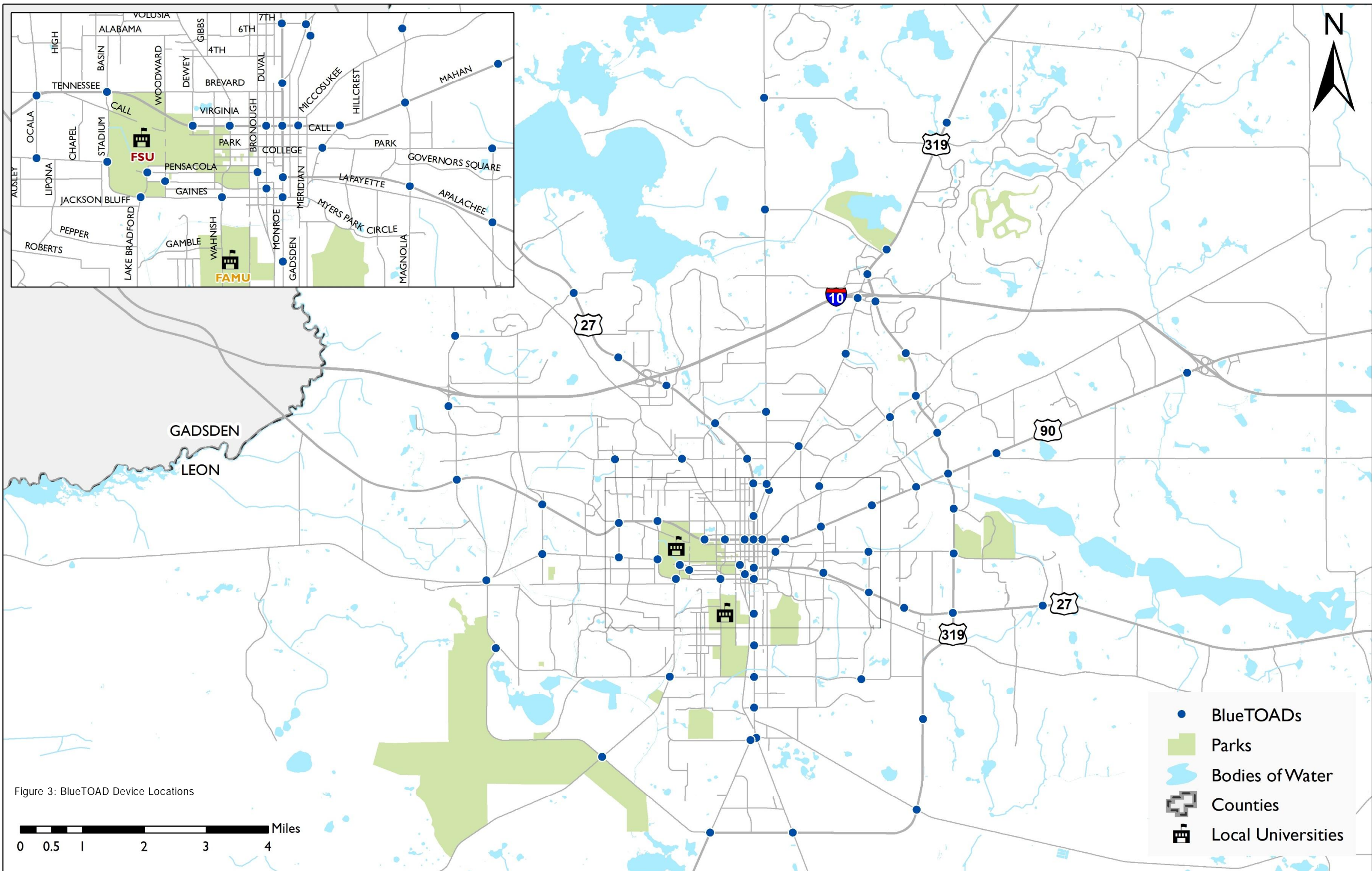


Figure 3: BlueTOAD Device Locations

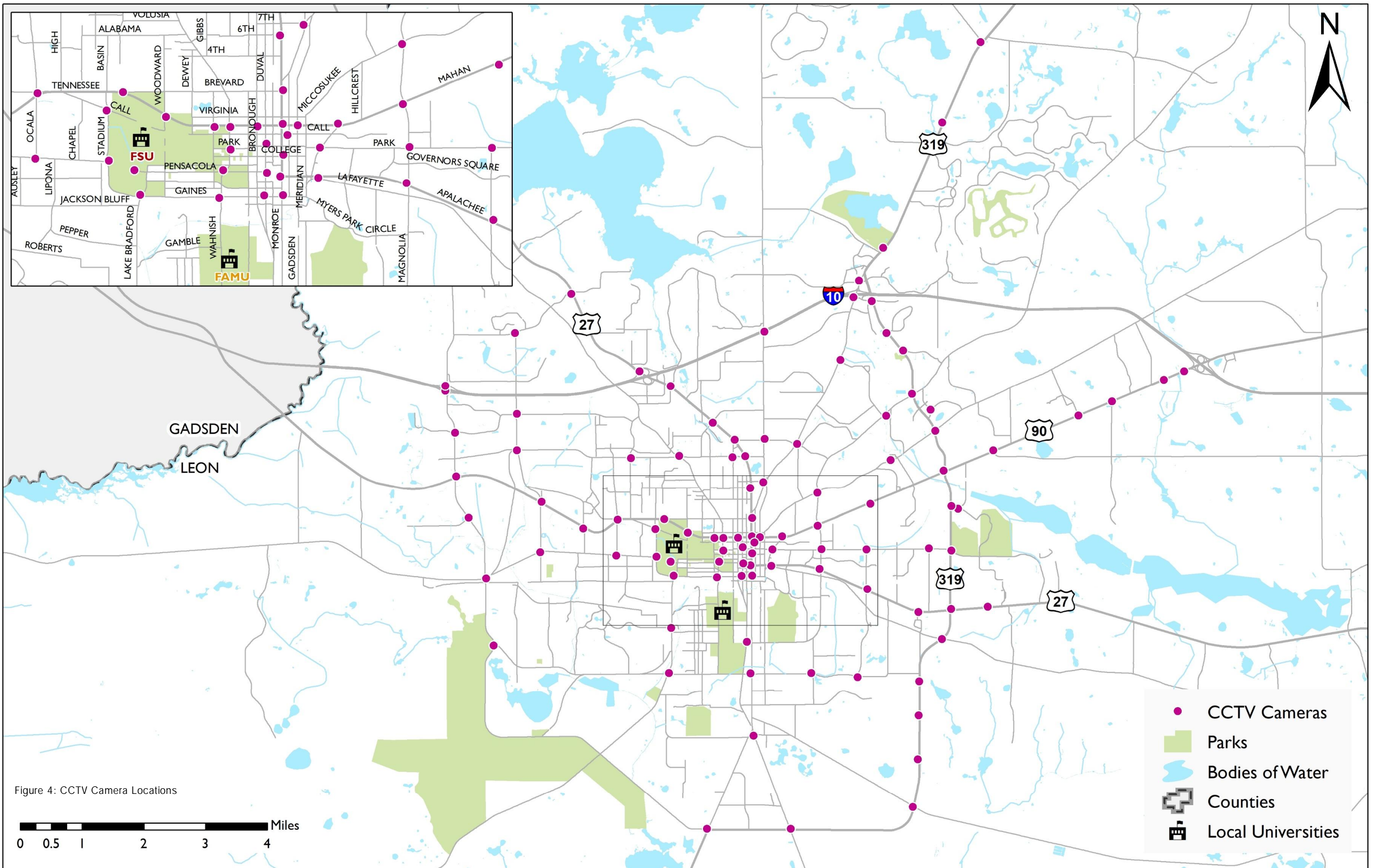
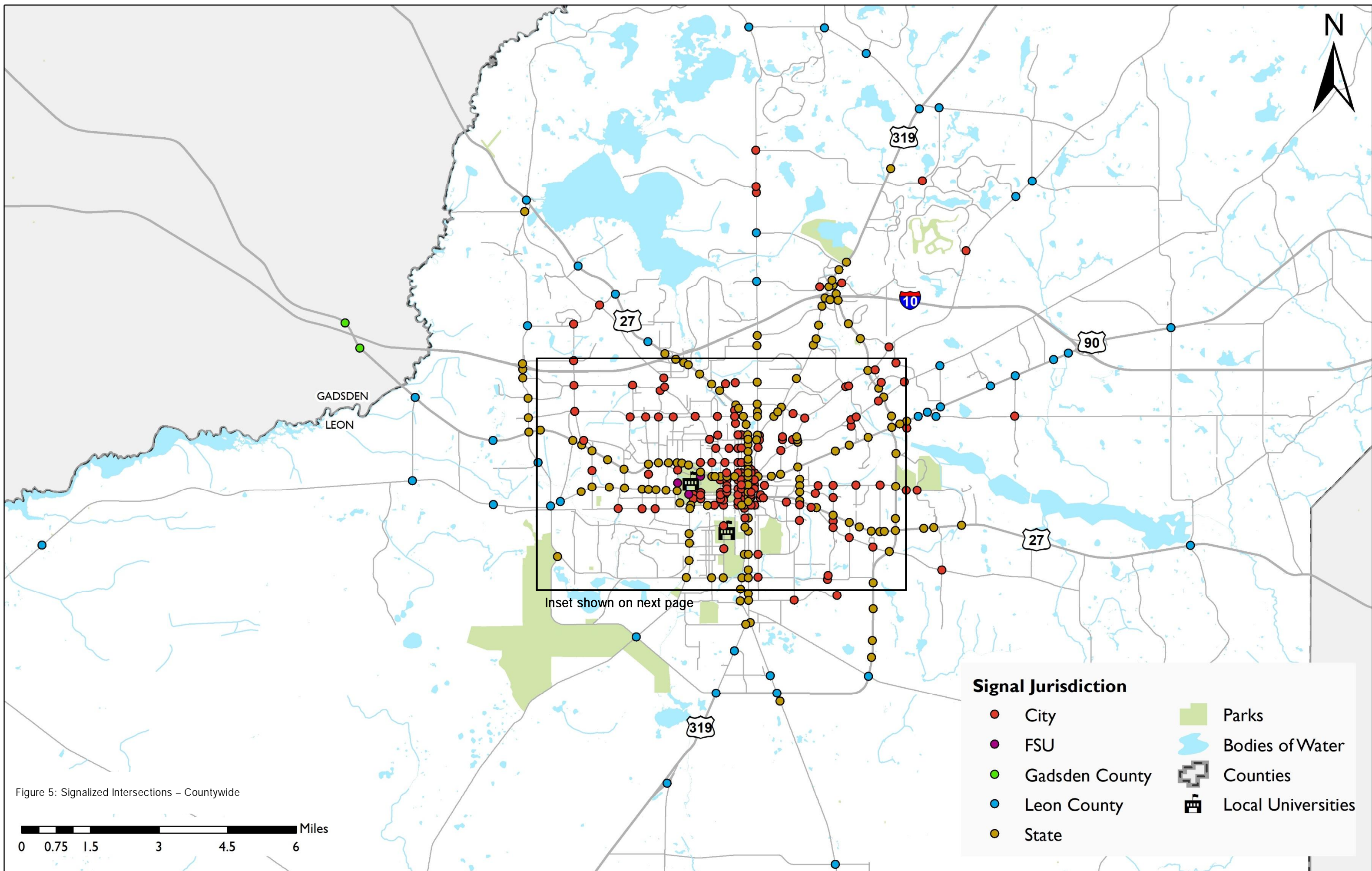
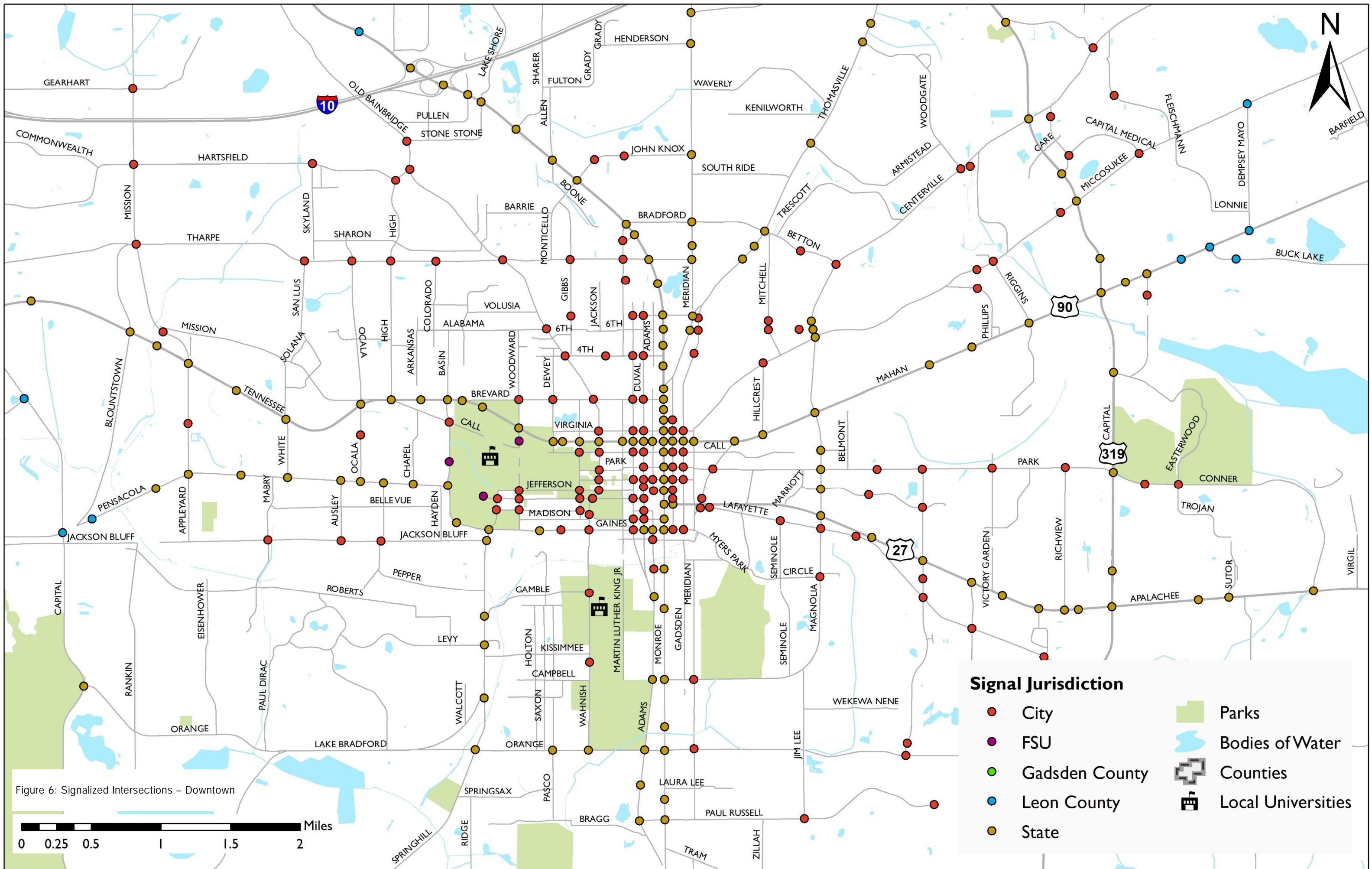


Figure 4: CCTV Camera Locations





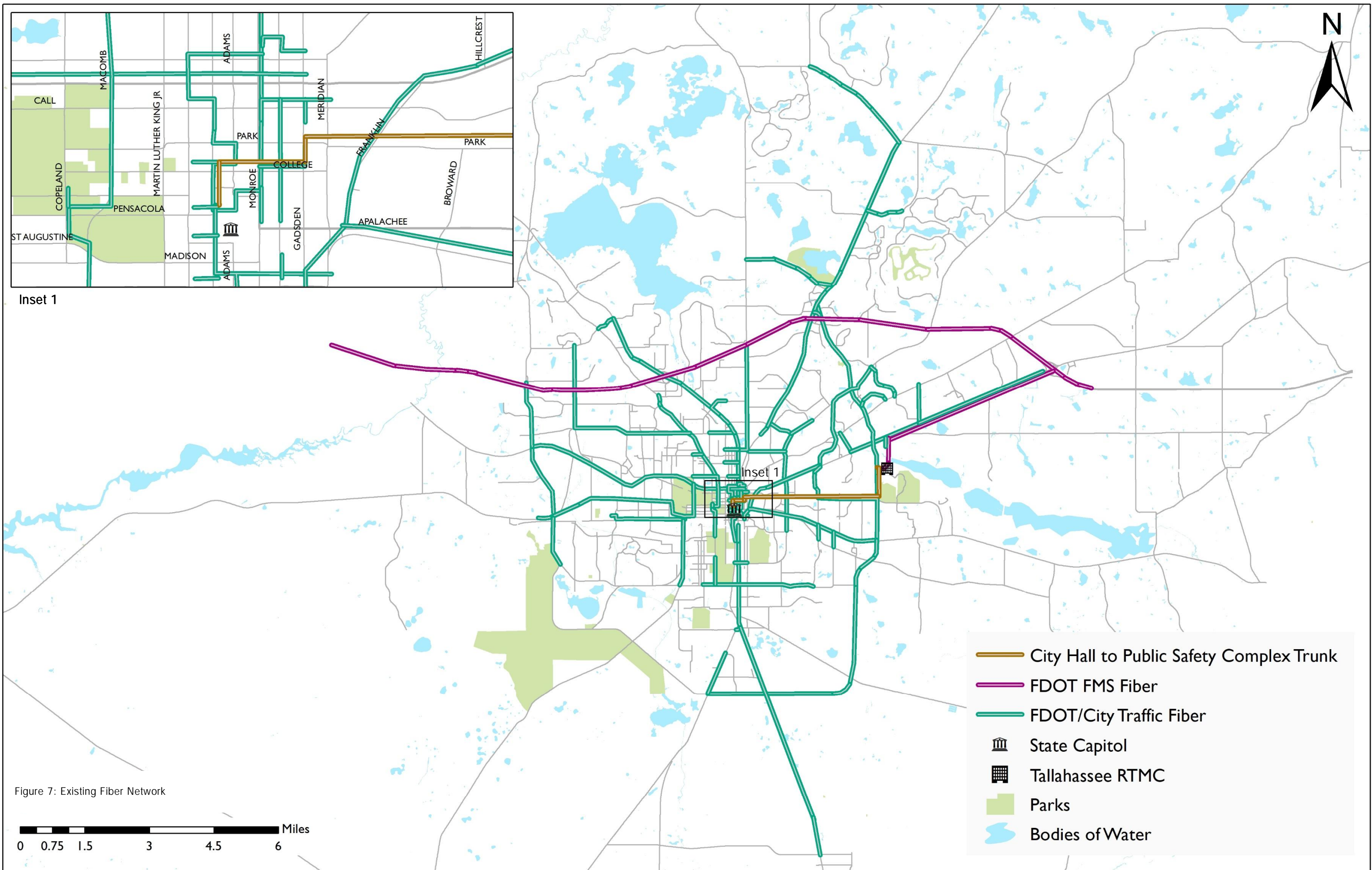


Figure 7: Existing Fiber Network

Traffic Management Center

The City's ITS devices and traffic signal system are monitored and controlled from the Tallahassee RTMC located at 911 Easterwood Drive in Tallahassee, Florida. The RTMC serves as the control center for the state-of-the-art Tallahassee Advanced Transportation Management System (TATMS). The City constructed the RTMC with 12 operator workstations, ten offices, and a conference room. The RTMC includes a double stacked video wall comprised of 48-inch video monitors. The bottom half includes 21 monitors utilized by the traffic operations staff to monitor and manage the traffic system. The top half, which also includes 21 monitors, is controlled by the Leon County Emergency Operations Center to display weather and news.

City staff are currently responsible for monitoring the ATMS Monday through Friday from 6:00 AM to 7:00 PM, as well as during all Florida State University home games. The RTMC also provides a backup, redundant system for monitoring the FDOT District 3's FMS. As a designated FDOT Satellite Transportation Management Center (STMC), the Tallahassee RTMC will serve as the emergency backup for the NWFRTMC. The RTMC allows for center-to-center communications with the District 3 TMC in Chipley, Florida and FDOT Central Office. The unique RTMC facility co-locates a number of key public safety related agencies including:

- 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 RTMC
- City of Tallahassee City Manager Emergency Management Command Center
- Leon County Emergency Management
- Consolidated Data Center



Figure 8: Tallahassee RTMC

Traffic Signals

The City of Tallahassee signal system currently includes 357 signalized intersection. The traffic signal system uses Intelight MaxTime local controller software monitored with Kimley-Horn's *KITS™* central system software. Kimley-Horn served as the software design, supply, and integration consultant for the implementation of a distributed control-based signal system facilitating a transition from the City's existing UTCS to its current Windows™-based distributed central system in 1999.

Tallahassee *KITS™* is configured to accommodate up to 256 control sections; 1,024 intersections; 12,288 system detectors; 1,000 count stations; 24 workstations; eight remote workstations; 16 docking workstations; 128 CCTV cameras; and 20 DMS with no modification to the software sizing constraints. In 2017, support was added for *Intelight MaxTime* controller software. The central system software also incorporates the ITS features of CCTV surveillance, video wall scheduling, and DMS control.

Signal Phasing and Timing Challenge

The Signal Phasing and Timing (SPaT) Challenge was issued to state and local public-sector transportation agencies to collaborate in an effort to achieve deployment of Dedicated Short-Range Communications (DSRC) infrastructure. The challenge entailed deploying DSRC with SPaT broadcasts in at least one corridor or network (approximately 20 signalized intersections) in each of the 50 states by January 2020.

FDOT Transportation Systems Management and Operations (TSM&O) Program has a renewed focus on arterial traffic management solutions and partnered with the City of Tallahassee for this challenge. Roadside Units (RSU) were deployed at 22 traffic signal intersections on US 90, (West Tennessee Street and Mahan Drive) from Duval Street to Walden Road just west of I-10. The RSUs broadcast SPaT and MAP (the geometric layout of the associated intersection) data for each individual signal location using 5.9 GHz DSRC.

FDOT is completing testing of portable on-board units (OBUs) and has confirmed the RSUs are broadcasting SPaT and MAP data via the DSRC. This implementation will support the advancement of Vehicle-to-Infrastructure (V2I) capabilities, especially related to intersection safety applications. Figure 9 highlights the signalized intersections included as part of this effort.

Performance Measures

Performance monitoring is the collection, analysis, and reporting of data to track and assess resources used, work produced, and whether specific goals are achieved. The ultimate purpose of performance monitoring is not just reporting the performance of the system, but the development of actions that improve performance. It can also be used to demonstrate the value of operations through a process of continuous evaluation. An important aspect of performance monitoring is an analysis of why goals are (or are not) being achieved, and accomplishments to

meet goals. Once a performance program is in place, it is a simple matter to focus it on before and after conditions for implemented projects and policies.

Many agencies across the country are using Automated Traffic Signal Performance Measures (ATSPMs) as the foundation of their performance monitoring program. ATSPMs consist of a high-resolution data-logging capability added to existing traffic signal infrastructure and data analysis techniques. This provides agency professionals with the information needed to proactively identify and correct deficiencies. The City currently uses an ATSPM dashboard to collect high-resolution data which allows the City to manage traffic signal maintenance and operations in support of the agency's safety, livability and mobility goals.

The technology is cost effective, as ATSPMs can be applied to a wide range of signalized intersections and use existing infrastructure to the greatest extent possible. ATSPMs will also support the validation of other technologies and operational strategies, such as adaptive signal control and emerging connected vehicle applications.

Bicycle Technology

Three automated bicycle counters are deployed within the City. These counters are located within protected bike lanes at two intersection locations:

- Pensacola Street and Martin Luther King Jr Boulevard
- West Madison Street and Martin Luther King Jr Boulevard

Additionally, on the west end of the Capital Cascades bridge, the City installed a digital counter that displays daily and annual counts of cyclists and pedestrians that cross the bridge.



Figure 9: Bicycle Technology

Sources: EcoCounter and Nue Urban Concepts

TRANSIT

StarMetro, Tallahassee's public transportation system, serves the metro area with fixed-bus routes and dial-a-ride services. The existing fleet of 66 buses has Automatic Vehicle Location (AVL) systems deployed, which is an automated means of tracking vehicle location. In addition, arrival and departure boards are installed at several bus shelters allowing riders to take advantage of next bus arrival technology.

Average route ridership was historically tracked through the use of the on board farebox. StarMetro is transitioning out of that practice and have installed Automated Passenger Counters (APC) on 12 fleet vehicles. As of July 1st, 2019, StarMetro received grant funding that will be used to retrofit the rest of the fleet with APCs. The process for calibration takes nearly two years but preliminary on time performance data by route will be available late 2019.

FLORIDA STATE UNIVERSITY

FSU is a public university located in central Tallahassee. The institution has been recognized as one of the world's most innovative universities and has deployed various transportation technologies throughout the campus. These deployments have been essential in streamlining parking procedures and increasing the safety of students. The current and future ITS technology deployed across the FSU campus are detailed below.

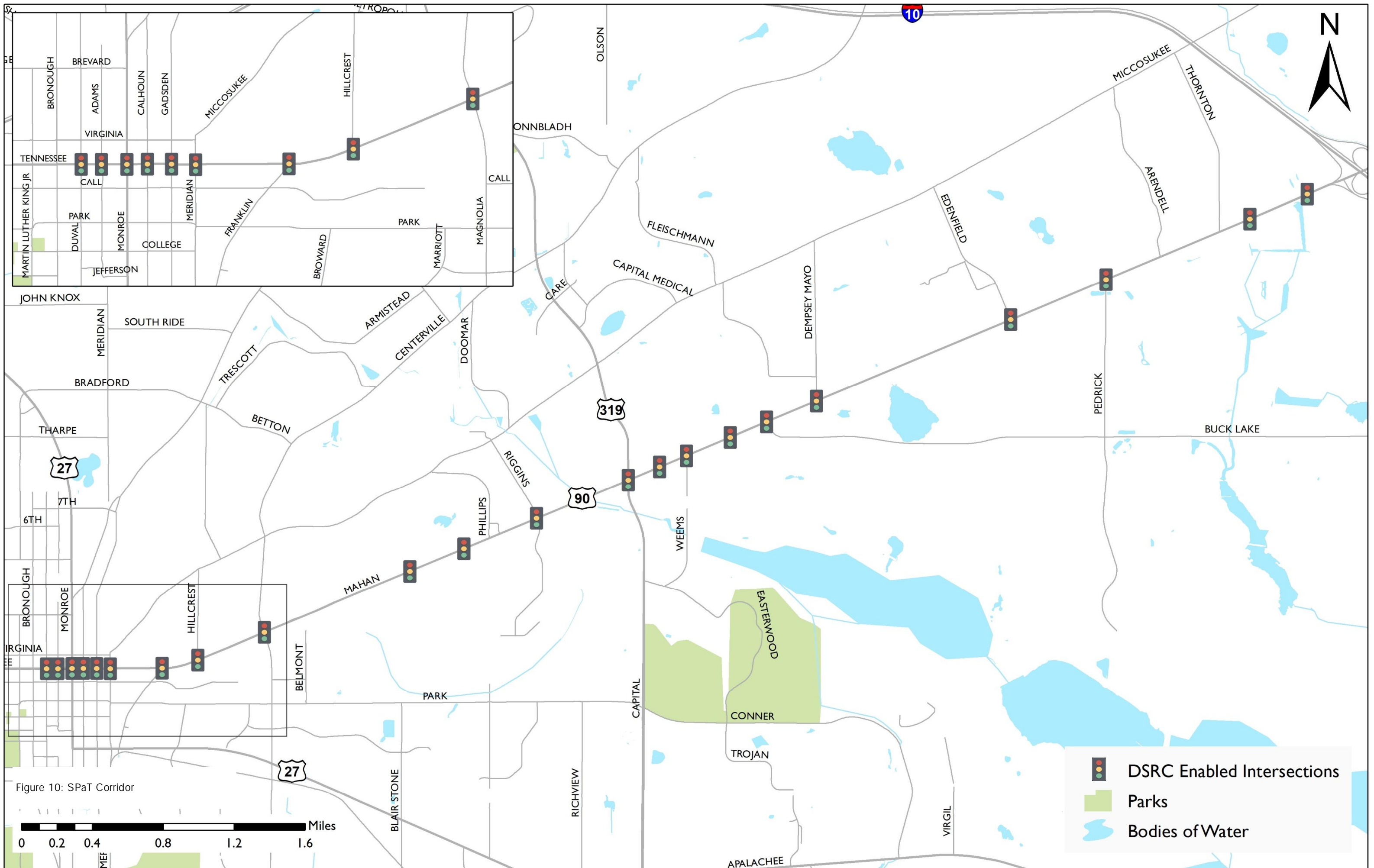


Figure 10: SPaT Corridor

FSU Parking Technology

Currently, there is loop based counting equipment deployed in all six garages on campus. These loop sensors track the daily entry and exit volume. This real-time garage occupancy data is displayed on variable message signs and provided to students through an in-house developed mobile application (*FSU TRANZ*). In the near future, FSU is planning to deploy license plate recognition (LPR) cameras at every garage access point. These cameras will ultimately replace the loop sensors, simultaneously conducting counts and collecting license plate information. This information will be shared with campus law enforcement as needed for security purposes.

FSU Transit Technology

One of FSU's goals is to possess an all-electric fleet of transit vehicles. Currently, the University has 20 new electric buses and has transitioned to a new tracking system (*TransLoc*). This new tracking system conducts automatic passenger counts, allowing students to have real-time information of space availability on each bus and bus location data. Wi-Fi and cellphone charging stations are included in FSU's future transit plans as well.

FSU Bicycle Technology

The University is in the process of installing covered bicycle parking across the campus. Bike lanes are proposed to be included in plans for all future roadway improvements that take place throughout the campus. The mobile application, RideShark provides its users the ability to search for rideshare opportunities, increasing the possibility of carpooling and creating an avenue for bike share opportunities.

Students also have access to a new kind of bike-sharing called Pace. Through the mobile applications, user have access to the fleet of 300 bicycles and information regarding the location of 50 racks concentrated mainly in Downtown Tallahassee. Unlike the traditional infrastructure, Pace bikes can be picked up or returned from any public bike rack in addition to the dedicated Pace racks.

Needs Assessment

A needs assessment is the evaluation of information from meetings and documents to identify needs that should be addressed by this ITS Master Plan. The combination of information from the inventory, the stakeholder engagement process, City staff expertise, congestion data, and safety statistics was used to assemble this assessment. The needs were used in conjunction with other criteria to develop project recommendations and map out an implementation plan for the City. It is the ultimate goal of this ITS Master Plan to recommend projects and strategies to address these existing needs and gaps. The project recommendations also consider future growth, anticipate future high-level needs, and consider emerging technologies.

SAFETY AND MOBILITY NEEDS

Residents of Tallahassee experience a variety of safety and mobility challenges every day such as unreliable commute times, crashes, and road closures due to work zones. Improving the safety and reliability of the Tallahassee transportation network will largely benefit motorists, bicyclists, pedestrians, and transit riders.

Congestion Data

Congestion was evaluated using probe data provided by the Regional Integrated Transportation Information Systems (RITIS). RITIS is a web-based platform that aggregates travel times and speed data from roadway sensors and probe-based systems along the road network. The RITIS platform allows users to access available historical and real-time data for arterials throughout the state of Florida using data visualization and data analysis tools. The tools provided allow users to query and analyze performance measures from the historical data set.

Analysis

Data provided by RITIS was analyzed to determine information regarding existing congestion status and hot spots throughout the City. These tools allows users to analyze traffic conditions on one or more stretches of road, providing data on metrics including travel time index, congestion, and historical speed over the selected time frame. A weekday analysis was conducted using data from January 1st, 2018 through December 31st, 2018.

The RITIS analysis network was created to include the entire Tallahassee arterial roadway network. The analysis network was loaded into the Bottleneck Ranking tool, which allows users to identify, rank, and explore bottleneck locations within an identified study area. Results are generated from the archived data set based on the specified date ranges. The tool ranks bottleneck corridors based on multiple factors including maximum queue length, daily duration, speed differential, and total delay. This visualization tool produced the following list of top bottleneck locations in the City.

Table 4: Top Bottleneck Locations

Rank	Road	Direction
1	US-27/Monroe Street at US-90/SR-10/Tennessee Street	Southbound
2	US-90/Tennessee Street at US-27/SR-61/Monroe Street	Westbound
3	SR-61/Monroe Street at US-90/Tennessee Street	Northbound
4	SR-61/Monroe Street at SR-371/CR-1555/Gaines Street	Southbound
5	US-27/Apalachee Parkway at SR-265/S Magnolia Drive	Westbound
6	US-319/Capital Circle NE at US-90/SR-10/Mahan Drive	Northbound
7	US-27/Monroe Street at SR-61/Thomasville Road	Southbound
8	US-90/Mahan Drive at US-319/SR-261/Capital Circle NE	Westbound
9	US-319/Capital Circle NE at US-90/SR-10/Mahan Drive	Southbound
10	US-27/Monroe Street at Bradford Road/M.L. King Jr Boulevard	Northbound

The average travel time index was also retrieved for all available corridors within the City. RITIS defines travel time index as the ratio of travel time in a peak period to travel time in free flow conditions. A travel time index of 1.50 would indicate that a 30-minute free flow trip would take 45 minutes in the peak period. The figures on the pages that follow visually shows the travel time index recorded for all available corridors during each one-hour morning and afternoon peak. The figures help to illustrate where the congestion occurs during the morning and afternoon peak hours. Understanding these priority corridors helps to identify locations that can significantly benefit from ITS solutions.

Mobility challenges impact residents, commuters, and the delivery of goods and services. The corridors identified in the figures and listed in the table above are the top congestion areas, or "trouble spots" for the City of Tallahassee. The transportation technology solutions developed during the development of this ITS Master Plan target congestion mitigation along these priority corridors.

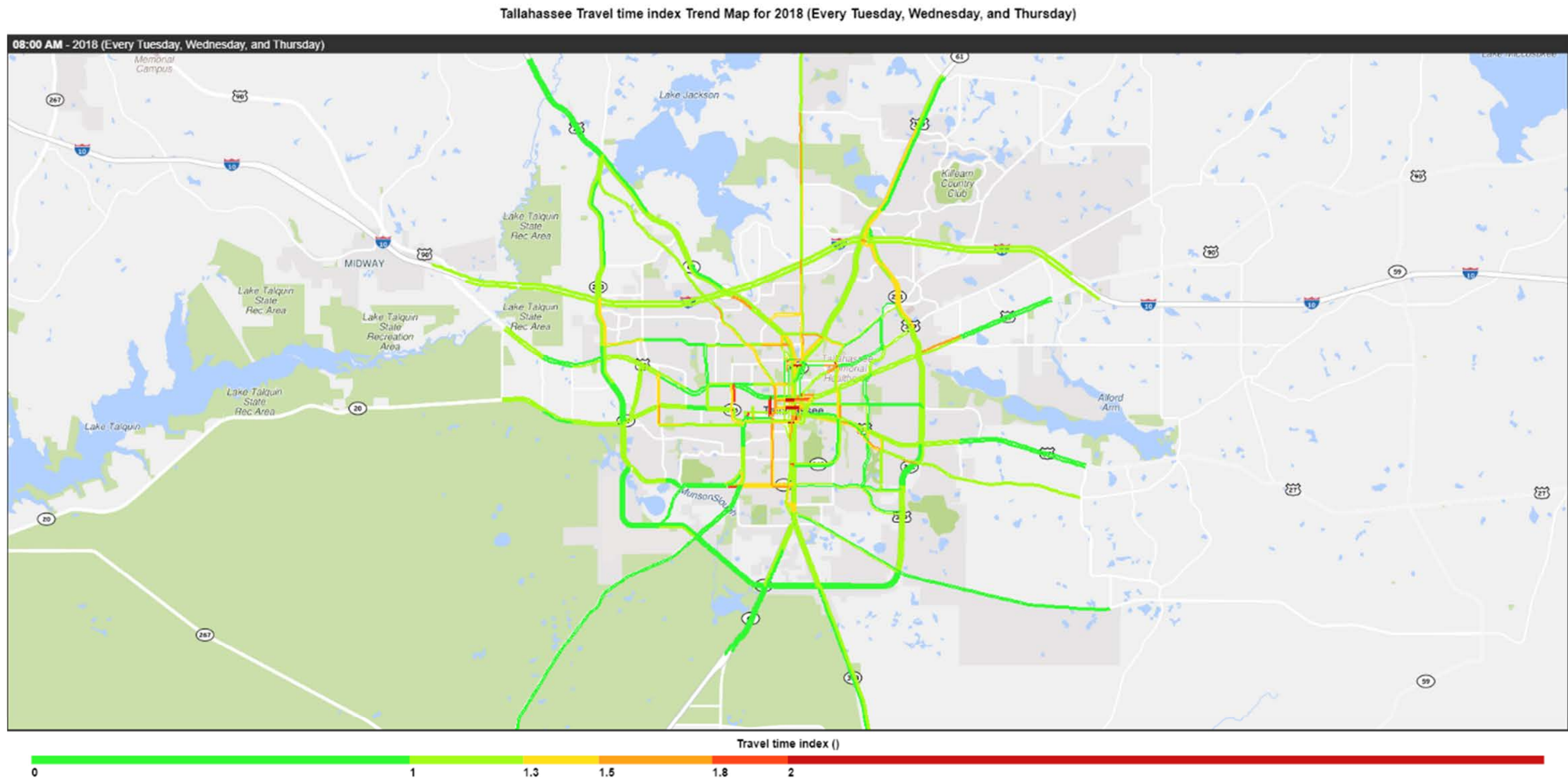


Figure 11: AM Peak TTI – Countywide

Tallahassee Travel time index Trend Map for 2018 (Every Tuesday, Wednesday, and Thursday)

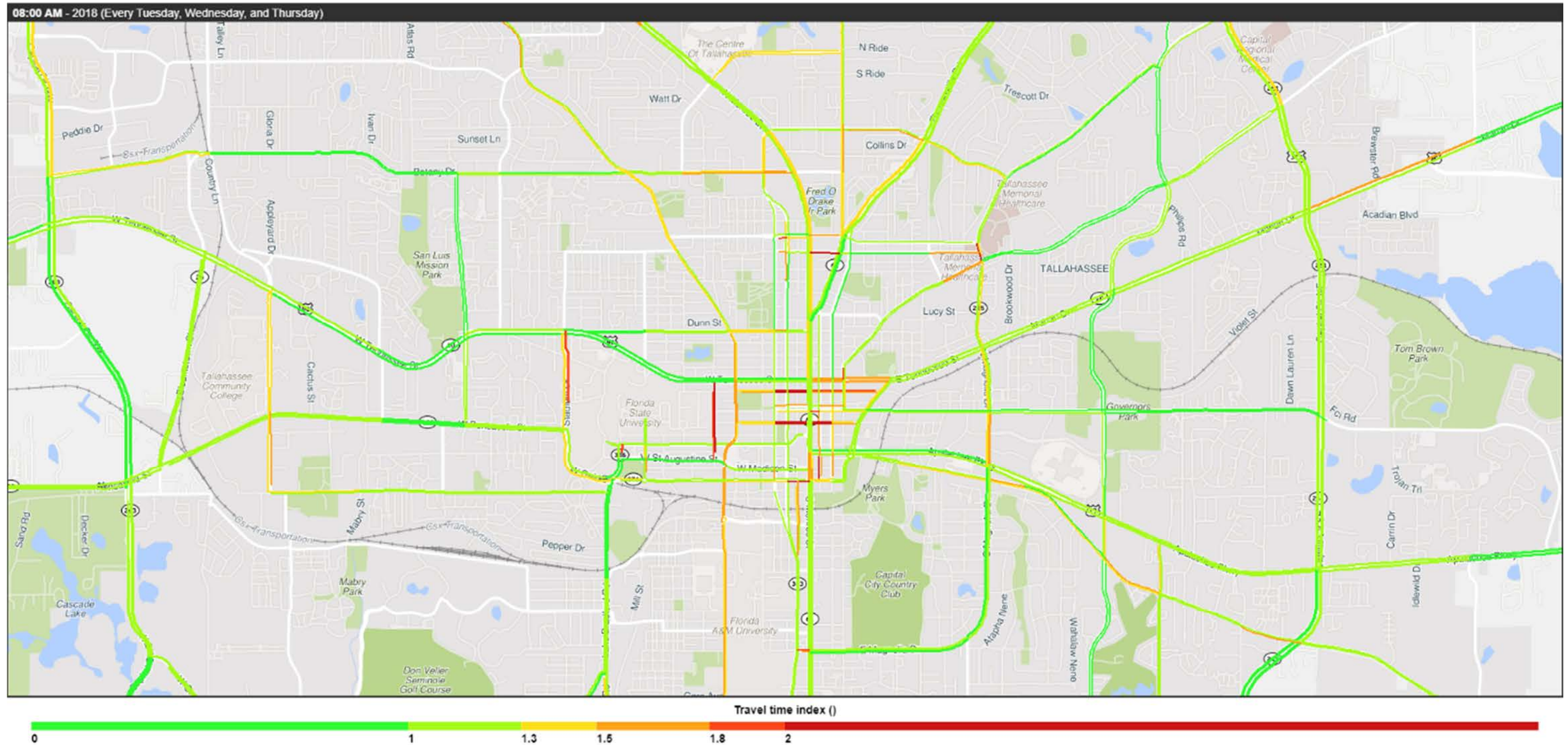


Figure 12: AM Peak TTI - Downtown

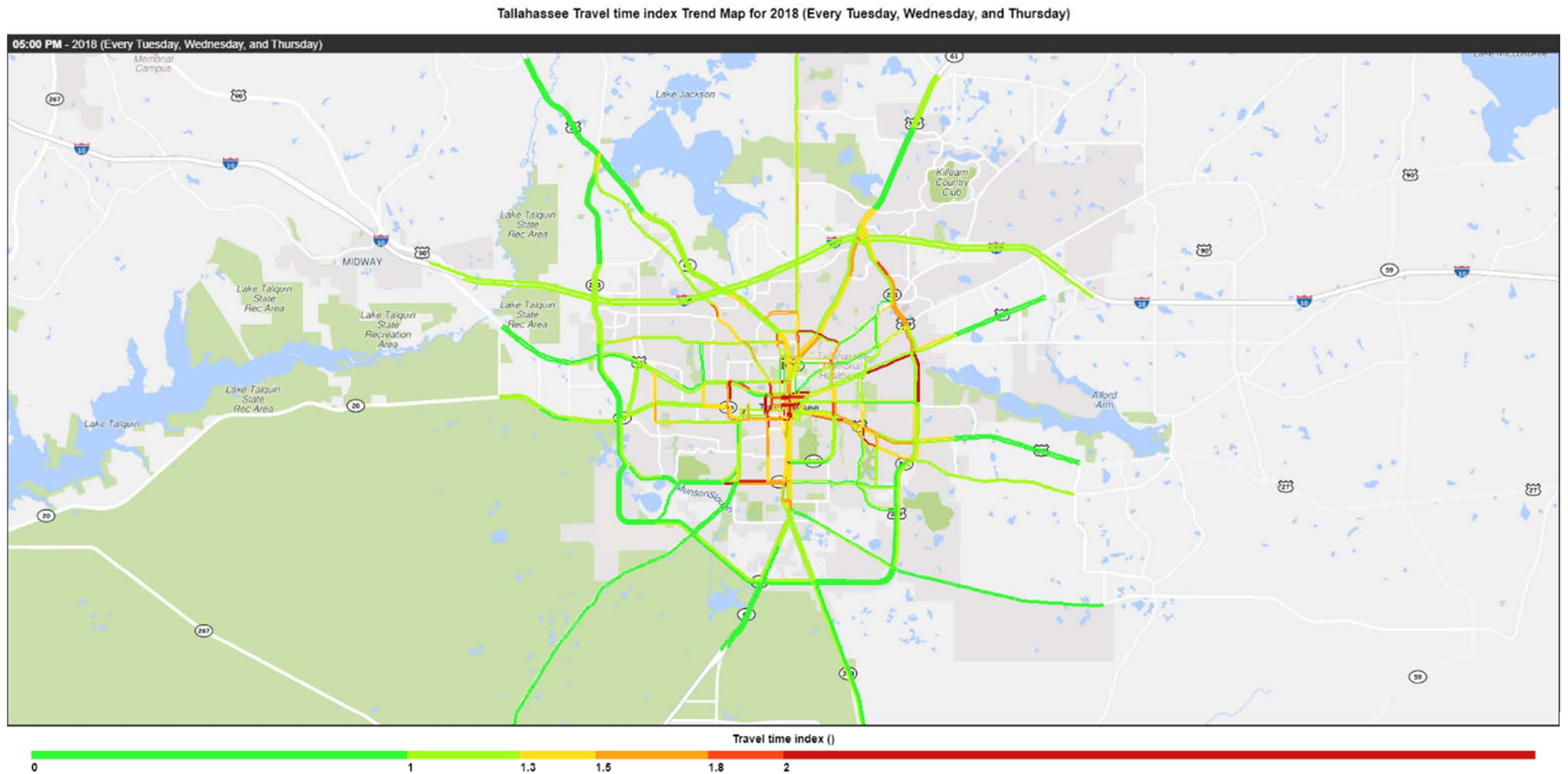


Figure 13: PM Peak TTI – Countywide

Tallahassee Travel time index Trend Map for 2018 (Every Tuesday, Wednesday, and Thursday)

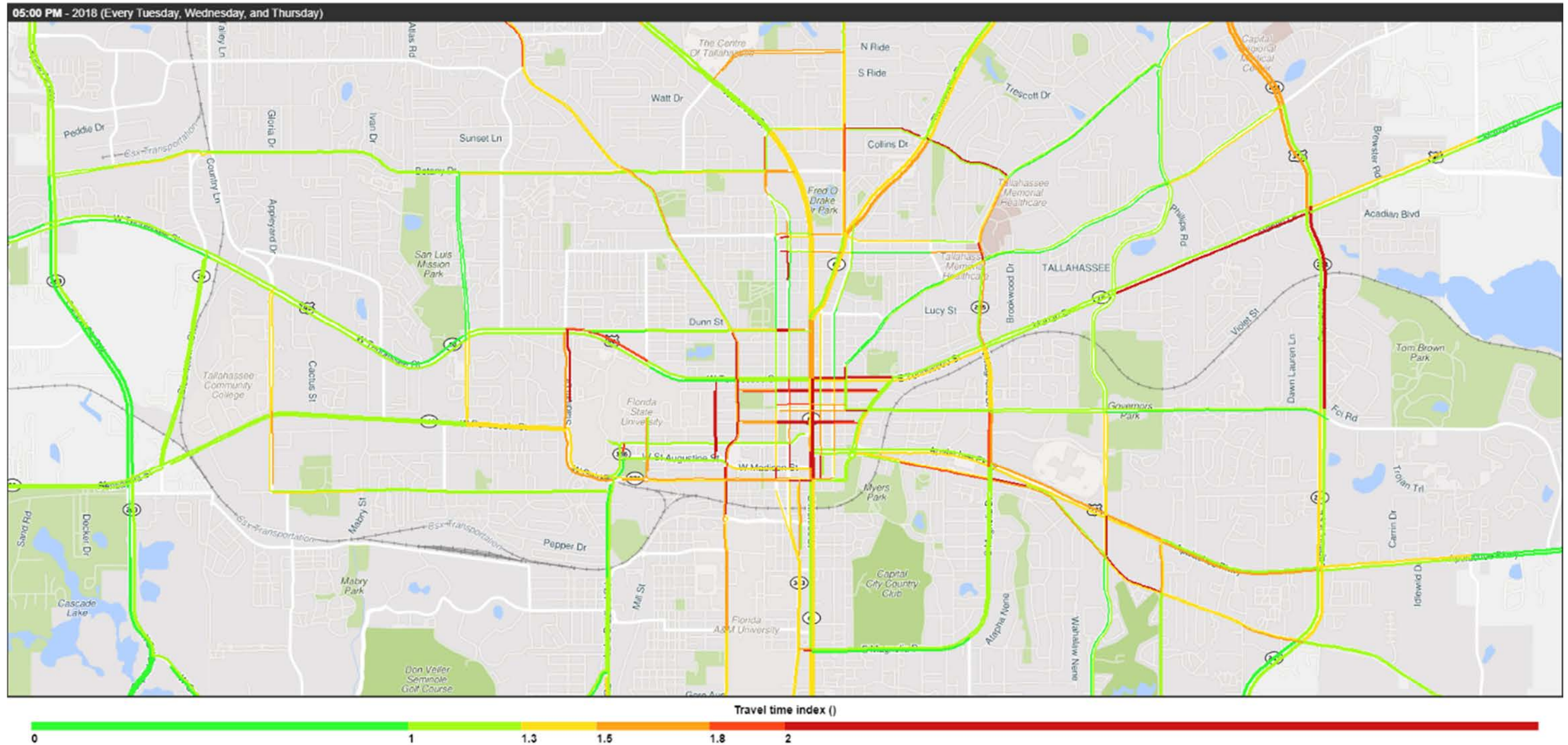


Figure 14: PM Peak TTI - Downtown

Safety Data

Signal Four Analytics is a statewide interactive, web-based geospatial crash analytical tool developed by the University of Florida. This system was designed to support the crash mapping and analysis needs of law enforcement, traffic engineering, transportation planning agencies, and research institutions in the state of Florida. Crash data – long and short form, collected electronically by Florida Highway Patrol and local law enforcement officers at crash sites throughout the state – is transmitted nightly to the GeoPlan Center and loaded into the Signal Four Analytics database.

A query was completed for all crashes within the City of Tallahassee in 2018. The following corridors had the highest crash rate for the year 2018:

- US-90/Tennessee Street
- Thomasville Road
- US-27/Apalachee Parkway
- US-319/SR-261/Capital Circle NE
- SR-61/US-27/Monroe Street
- Mahan Drive
- Pensacola Street
- Monroe Street
- Tharpe Street

The data provided by Signal Four Analytics included a detailed crash type description for each reported crash. The table below lists the crash type by location for each of the corridors, with the most predominant crash type being rear end crashes.

Table 5: Crash Type by Location

Major Street	Tennessee St W	Thomasville Rd	Apalachee Pkwy	Capital Cir NE	Monroe St N	Tharpe St W	Mahan Dr	Pensacola St W	Monroe St S
Angle	31	22	14	12	11	7	5	4	9
Animal	0	1	0	0	0	0	0	0	0
Bicycle	3	1	1	0	0	0	0	0	1
Head On	7	2	5	2	2	3	1	3	0
Left Turn	42	26	24	31	28	15	6	17	6
Off Road	15	10	4	6	7	7	4	2	3

Major Street	Tennessee St W	Thomasville Rd	Apalachee Pkwy	Capital Cir NE	Monroe St N	Tharpe St W	Mahan Dr	Pensacola St W	Monroe St S
Other	100	57	88	47	69	31	19	33	28
Pedestrian	1	2	0	0	0	1	0	3	0
Rear End	196	121	85	92	61	52	64	33	36
Right Turn	3	1	2	4	2	1	0	0	0
Rollover	0	0	0	0	0	0	0	0	1
Sideswipe	62	28	26	30	23	7	12	13	16
Unknown	24	5	9	7	19	2	2	5	7
Total	484	276	258	231	222	126	113	113	107

The corridors identified above are the top crash locations, or “hot spots” in the City of Tallahassee. The ITS strategies and technologies developed during the development of this ITS Master Plan contribute to improving safety along these priority corridors. Fewer incidents enhance the safety of the area and reduce congestion.

Priority Corridors

Understanding where the congestion is during the morning and evening peak hours as well as the crash hot spots helps identify locations that can significantly benefit from the proposed transportation technology solutions. It is anticipated that congestion will continue to be a challenge within these areas and worsen over time as the City continues to grow and development increases. While there are several effective measures that agencies use to maximize system mobility and safety, ITS is effective in harnessing the benefits of emerging technologies to achieve that end efficiently. The City of Tallahassee recognizes the benefits of ITS operations and is committed to the inclusion of ITS into their suite of transportation initiatives.

ADDITIONAL ITS NEEDS

Based on the collective input of the regional stakeholders, additional needs in which enhanced ITS strategies or technologies can provide the greatest benefit were identified. These needs were largely related to changes in processes and policies to help support the success of the City's ITS:

- Educate internal City Departments on ITS capabilities to increase the awareness and understanding of the benefits an ITS Program can provide to all City services.
- Mainstream ITS components (devices, communications, data collection, shared control) into capital and transportation improvement programs and processes to expand/leverage the City's ITS Program.
- Expand the use and availability of ITS infrastructure, systems, and data that could benefit certain departments or external partner agencies in the region.
- Provide sufficient and knowledgeable staffing (foundational staffing, organizational structure, and pursuing appropriate training and ongoing knowledge development) to support functions of the ITS Program.
- Increase ability to distribute relevant information tailored to audience (i.e. provide real-time traveler information).

EMERGING TECHNOLOGY CONSIDERATIONS

The City of Tallahassee anticipates significant growth and further dependency upon its existing and planned ITS with the continued evolution of technology in the transportation industry. In addition to the forthcoming recommended ITS projects, broader ITS technologies that encompass and bridge multiple focus areas were evaluated. This section includes a brief technical overview of several existing and some emerging ITS technologies identified for consideration as part of this ITS Master Plan. These applicable technologies were taken into consideration as project recommendations were developed.

Communications for Autonomous and Connected Vehicles

As autonomous vehicle (AV) technologies are being implemented around the country, two options of wireless technology are leading: DSRC radio and 5G wireless technology. DSRC is currently the predominant technology in the U.S. Connected Vehicle (CV) market. The wireless technology enables vehicles to send and receive brief digital packets of information about their location, intentions, and speed. This communication option requires two components: OBUs and RSUs. An OBU is a transceiver that is normally mounted in or on a vehicle, or in some instances may be a portable unit. An RSUs is a transceiver that is mounted along a road or pedestrian passageway. An RSU broadcasts data to OBUs or exchanges data with OBUs in its communications zone. DSRC currently accommodates all necessary vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communications in modules that are already commercially available. However, there is no demand for DSRC, beyond connected vehicle applications.

Alternatively, wireless mobile carriers are preparing to deploy 5G technology. Today select carriers are working with state regulators to receive permission to install the thousands of micro cells necessary to support 5G transmission. Although the standards for this technology have yet to be defined, some of the potential benefits include greater interoperability, wider bandwidth, increased cybersecurity, and a decentralized network that runs on private cell

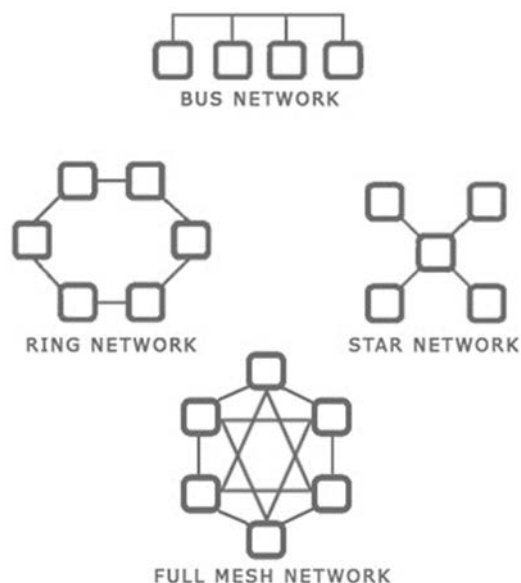
towers. 5G technology eliminates the need for dedicated roadside units, allowing agencies to reduce deployment and maintenance costs.

Both DSRC and 5G technologies offer the prospect of direct V2V and V2I communications. Both technologies also enable communications between vehicles and pedestrians. The two technologies use the same wireless frequencies, but have incompatible protocols and therefore cannot communicate directly.

Network Architecture Enhancement

A network's topology is a representation of the physical and/or logical layout of the communications between devices and how they are connected. The four common communication topologies are bus, star, ring, and mesh. In most cases, networks use a combination of these four types (shown in the figure below).

Figure 15: Network Topology Layouts



Bus topology interconnects multiple devices along the same communications link or channel, similar to a multi-drop channel in a serial network. Bus topologies are rarely (if ever) used in newly deployed, IP/Ethernet networks. A star topology uses a point-to-point connection similar to a bus topology, but the network appears to radiate outward from a single point. A ring topology uses a closed-loop, point-to-point connection between adjacent devices. A mesh topology uses multiple-point, multiple-path connections between devices. Each topology strikes a balance between resiliency and required communication links that correlate with cost.

The City of Tallahassee has both serial and IP/Ethernet communications architecture. The transition to an entirely IP/Ethernet architecture would provide the City with enhanced interoperability, sustainability, and redundancy. The best way to plan for emerging technologies is to provide a robust, high quality network capable of expansion.

Recommendations

The following series of ITS projects proposed for future deployment were developed based on the needs assessment, stakeholder input, direction from the City, and industry best practices. The established vision and objectives were used as guiding principles to develop the proposed projects. The overall process to develop and identify projects is summarized below. For each project identified, an overall project description, identification of the project coverage area, and a summary of benefits is provided. Additionally, high-level budgetary estimates were developed for planning purposes. The projects were then prioritized based on adherence to the established vision and objectives, estimated cost, and potential to provide the greatest benefit.

Project Identification

Present and future needs were identified based on a review of current data and served as the foundation for the project recommendations developed. The project development approach consisted of analyzing data to identify needs, considering various ITS solutions, and determining the feasibility of the projects. The recommended projects include strategies, technologies, and staffing that will allow the City of Tallahassee to progress towards achieving the vision developed for the ITS Master Plan: *Maximize the transportation system efficiency and performance using innovative technologies and regional collaboration to promote reliable mobility throughout the vibrant Capital City region.*

The recommended projects have been categorized into eight functional areas:

- Traffic Management
- Transit Management
- TMC
- Traveler Information
- Asset Management
- Performance Measures
- Bicycle Detection
- Communications

The project recommendations are mapped back to the initial needs, providing a level of traceability for each. Creating this traceability is important to ensure the ITS Master Plan addresses the needs specific to the City of Tallahassee and provide benefits. Having a clear connection between the ITS Master Plan and the needs identified by staff helps foster trust from the stakeholders.

TRAFFIC MANAGEMENT

Traffic management refers to the typical day-to-day congestion management of roadways. The management of traffic focuses on the use of ITS infrastructure to improve congestion and disseminate roadway conditions to the public. Current day-to-day operations at the Tallahassee RTMC focus primarily on active arterial management.

Traffic signal control systems are the primary tools used for active arterial management. Traffic signals throughout the City of Tallahassee currently operate with actuated-coordinated timings during peak hours and actuated-uncoordinated timings during overnight hours, with varied coordinated settings by time-of day. City staff routinely conduct studies on intersections based on recurring congestion, known issues, and complaints received from the public. Additionally, the staff will actively manage the downtown arterial network and change the signal timing plans based on the special events in the downtown area.

This functional area includes strategies targeted at proactive operation of the City's traffic signal system to deliver solutions that improve efficiency, safety, and reliability of signalized intersection operations. The primary objective of this functional area is improved traffic management focused on both recurring and non-recurring congestion. Based on this need, recommended strategies for consideration are listed below. Implementation of these recommendations will improve the traffic management capabilities of the City and provide additional opportunities for active arterial management.

Adaptive Traffic Signal Control

Adaptive traffic signal control (ATSC) is the dynamic adjustment of traffic signal timing using vehicle detection to accommodate real-time changes in traffic patterns and demand. ATSC systems continuously monitor arterial traffic conditions and the queuing at intersections to dynamically adjust the signal timing. The system's predictive algorithms account for real-time data collected from field equipment, as well as historical traffic data stored in a central database.

Timing adjustments are implemented by the local controllers by transitioning from existing time-of-day plans. The predictive algorithms evaluate the traffic data as much as once per second to determine the future traffic patterns and demand, and implement traffic signal timing modifications in anticipation of that future traffic demand. ATSC systems can adjust to accommodate traffic conditions more proactively than time-of-day coordination which are typically more fixed or reactive to recurring traffic conditions.

Coverage Area

In an effort to improve traffic flow and reduce delay throughout the Tallahassee area, select corridors in the city may benefit from an adaptive traffic system. According to the Federal Highway Administration (FHWA), ATSC technologies are best suited for arterials that experience highly variable or unpredictable traffic demand for which multiple signal timing solutions are necessary during a typical time-of-day period.

A review of the major corridors throughout the City were completed with special consideration given to those with a higher Average Annual Daily Traffic (AADT). AADT is a measure that looks at total volume of vehicular traffic on a roadway for a year divided by 365 days. Consideration was also placed on the surrounding land uses of each major corridor. 2017 AADT and current land use composition was obtained from FDOT's Transportation Data and Analytics GIS Data Directory. A high-level evaluation was conducted, and the following corridors were identified as recommended locations for deployment of ATSC systems:

- US 27 from South Monroe Street to Conner Boulevard – 14 intersections
- US 90 from North Monroe Street to Capital Circle NW – 18 intersections

Both corridors contain diverse land use composition including retail, office space, residential, public/institutional, and industrial. The project limits are illustrated in Figure 16.

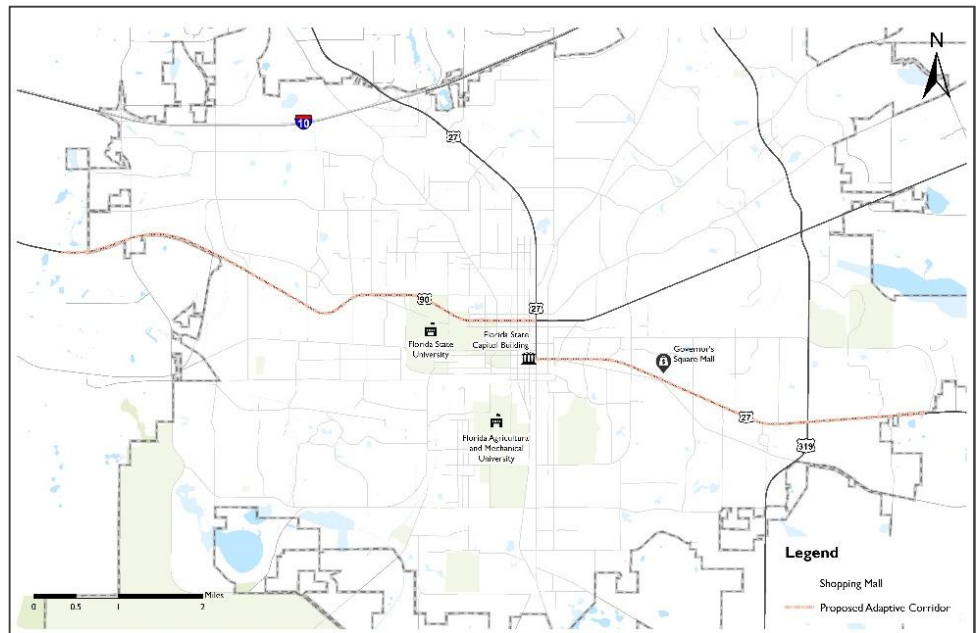


Figure 16: Proposed Adaptive Corridors

Project Benefits

ATSC is typically deployed to mitigate corridors with erratic peak travel times, large amounts of pedestrian traffic, and a need to reoptimize periodically. This includes being able to manage tourist, weather, or special event generated traffic demands beyond traditional peak periods experienced on most roadways. According to FHWA, the main benefits of ATSC technology over conventional signal systems are that it can¹:

- Continuously distribute green light time equitably for all traffic movements
- Improve travel time reliability by progressively moving vehicles through green lights
- Reduce congestion by creating smoother flow
- Prolong the effectiveness of traffic signal timing

It is important to note that ATSC systems will not increase the capacity of a facility but can serve to optimize the throughput of traffic. A significant issue with ATSC systems is the importance of

¹ FHWA. *EDC-1: Adaptive Signal Control Technology*. 2017.
<https://www.fhwa.dot.gov/innovation/everydaycounts/edc-1/asct.cfm>

the system's ability to detect both vehicle presence and vehicle queues. For this reason, the vehicular detection configuration is a significant cost factor when considering the implementation of ATSC systems. Careful evaluation should be completed regarding the feasibility of each corridor before deploying a system.

System Detectors

Detection at signalized intersections is primarily used to determine presence, volume, speed, and occupancy of motorized vehicles. The in-pavement inductive loop detector is the most common sensor used in traffic management applications. When a vehicle stops on or passes over the loop, the inductance of the loop is decreased causing the electronics unit to send a pulse to the controller, indicating the presence or passage of a vehicle. With the installation of inductive loops, speed can be measured by using two sensors a known distance apart or estimated from one sensor using the effective detection zone and approximate vehicle lengths. Most of the existing traffic signals in the City are actuated and equipped with loop detectors that detect vehicle presence, but do not detect speed or flow. Additionally, wireless magnetic sensors embedded in the road, sometimes referred to as pucks or pods, can be used to detect vehicles. The system works by sensing the disturbances in the earth's magnetic field that occur due to the presence of a car or motorcycle².

Alternate detection types such as radar detectors, classified as microwave (non-intrusive) technology, can collect velocity, flows, and occupancy data when they are deployed along the roadside. A single above-ground radar sensor mounted on a pole adjacent to the roadway can monitor multiple lanes of traffic. Since the radar detection is strongly impacted by the road environment, radar is more widely implemented on highways rather than in urban areas.

Alternatively, video-based detectors analyze the video image input. Different approaches are used by video detection sensors. Some analyze the video image of a target area on the pavement and as a vehicle passes through the target area this change in the image is processed as occupancy data. Another approach identifies when a target vehicle enters the video field of view and tracks the target vehicle through this field of view.

Coverage Area

Currently, the City of Tallahassee has loop detectors deployed at several signalized intersections. The current loops detect occupancy at each signal approach for signal actuation. This deployment project recommends the installation of loops at every intersection to allow for detection of speed and volume in addition to occupancy. With over 350 intersections a phased deployment that occurs over multiple fiscal years is recommended. The ideal time to undertake this sort of project would be during intersection projects with potential digging or trenching. Also, all newly constructed signalized intersections should include the installation of two loop detectors in every lane for every intersection approach.

² Klein, et al., *Sensor Technologies and Data Requirements for ITS*. 2001.

Project Benefits

As the City progresses with collecting advanced performance metrics, deploying traffic responsive and adaptive traffic signal control, more advanced detection is necessary to collect the required data. Upgrading the system detectors will benefit the active management of the roadway network. According to FHWA, the benefits of in-pavement inductive loop include³:

- Provides basic traffic parameters (e.g., volume, presence, occupancy, speed, headway, and gap)
- Insensitive to inclement weather such as rain, fog, and snow
- Provides best accuracy for count data as compared with other commonly used techniques
- Common standard for obtaining accurate occupancy measurements

Inductive loop detectors continue to be widely used to monitor traffic flow and control signals because of their relatively low cost, maturity, and aesthetics. The operation of inductive loop sensors is well understood and their application for providing basic traffic parameters represents a mature technology. The equipment cost of inductive loop sensors is lower when compared to over-roadway sensors.

CCTV Cameras

CCTV cameras play an important role in the operation of the transportation network. CCTV cameras provide the ability to see traffic situations in real-time and assist with verifying the existence of incidents prior to dispatching response crews. Additionally, CCTV cameras monitor traffic flows along a corridor, enabling City staff at the RTMC to provide active arterial management by selecting timing plans or adjusting signal timings based upon the observed traffic flow patterns.

The City of Tallahassee currently has 97 analog cameras deployed. A recommended strategy based on the traffic management needs of the City is to expand the network of arterial cameras and upgrade all analog cameras to Internet Protocol (IP) cameras. These cameras will provide surveillance capability for the City to help identify incidents, equipment malfunctions, or general traffic conditions around intersections. This strategy also contributes to reduction in incident response time, which has a direct impact on incident clearance times and congestion. The installation of new CCTV cameras and the upgrade of the existing camera system will include the process of integrating the cameras for operations at the RTMC.

Coverage Area

Cameras should be installed at major intersections along major arterials. Locations for additional CCTV deployments throughout the City were determined based on any gaps in CCTV coverage, and other factors including:

- Locations that experience high crash rates

³ FHWA. *Overview of Vehicle Detection and Surveillance Technologies*. 2014.

- Locations where signal timing may need to be changed frequently based on traffic or weather-related conditions
- Locations where unplanned events frequently occur with negative impacts on progression and cause severe delays

A review of the major corridors was completed with special consideration placed on the traffic and safety focus areas throughout the City. As discussed in the Needs Assessment section, data provided by RITIS was analyzed to determine information regarding existing congestion status and bottlenecks. As a result of the high-level evaluation, the following signalized intersections were identified as ideal locations for deployment of CCTV cameras.

- | | |
|--|---|
| 1. Capital Circle NW & Monroe Street | 18. Basin Street & Tennessee Street |
| 2. Miller Landing Road & Meridian Road | 19. Bronough Street & Virginia Street |
| 3. Brickyard Road & Highway 90 W Midway | 20. Calhoun Street and Virginia Street |
| 4. Capital Circle NW & Fred George Road | 21. Aenon Church Road & Blountstown Highway |
| 5. North Monroe Street & Talpeco Road | 22. Pensacola Street & White Drive |
| 6. Monroe Street & Sessions Road | 23. College Avenue & Duval Street |
| 7. Meridian Road & Timberlane Road | 24. Calhoun Street & College Avenue |
| 8. High Road & Old Bainbridge Road | 25. Gadsden Street & Park Avenue |
| 9. John Knox Road & Meridian Road | 26. Park Avenue & Victory Garden Drive |
| 10. Centerville Road & Fleischmann Road | 27. Ausley Road & Jackson Bluff Road |
| 11. Fleischmann Road & Welaunee Boulevard | 28. Jackson Bluff Road & Lipona Road |
| 12. Capitol Plaza Boulevard & Thomasville Road | 29. West Gaines Street & Stone Valley Way |
| 13. Betton Road & Centerville Road | 30. Apalachee Parkway & Conner Boulevard |
| 14. 7 th Avenue & Duval Street | 31. Magnolia Drive & Monroe Street |
| 15. 6 th Avenue & Gadsden Street | 32. Orange Avenue & Wahnish Way |
| 16. Aenon Church Road & Tennessee Street | 33. Adams Street & Paul Russell Road |
| 17. Blountstown Highway & Tennessee Street | 34. Monroe Street & Paul Russell Road |
| | 35. Capital Circle SW & Springhill Road |

The proposed locations listed above are illustrated in Figure 17. It is recommended that the project be segmented into phases to allow deployment in stages. Locations with higher traffic volumes and of higher importance as noted by City staff were assigned Priority 1. All other locations are considered Phase 2. The numbering of the locations in the graphic directly correlate to the list above.

Project Benefits

Upgrading the City's existing cameras to IP has several benefits including:

- real-time video streams at a higher resolution

- accommodation of increased scalability
- providing the potential for video analytics

High quality video allows for real-time observation of traffic conditions, incident management, hurricane/disaster management, signal display verification and maintenance, and roadway maintenance/construction. Video observation can be used for verifying the results of traffic management strategies, such as signal timing changes or work zone diversions, and for detection and verification of crashes.

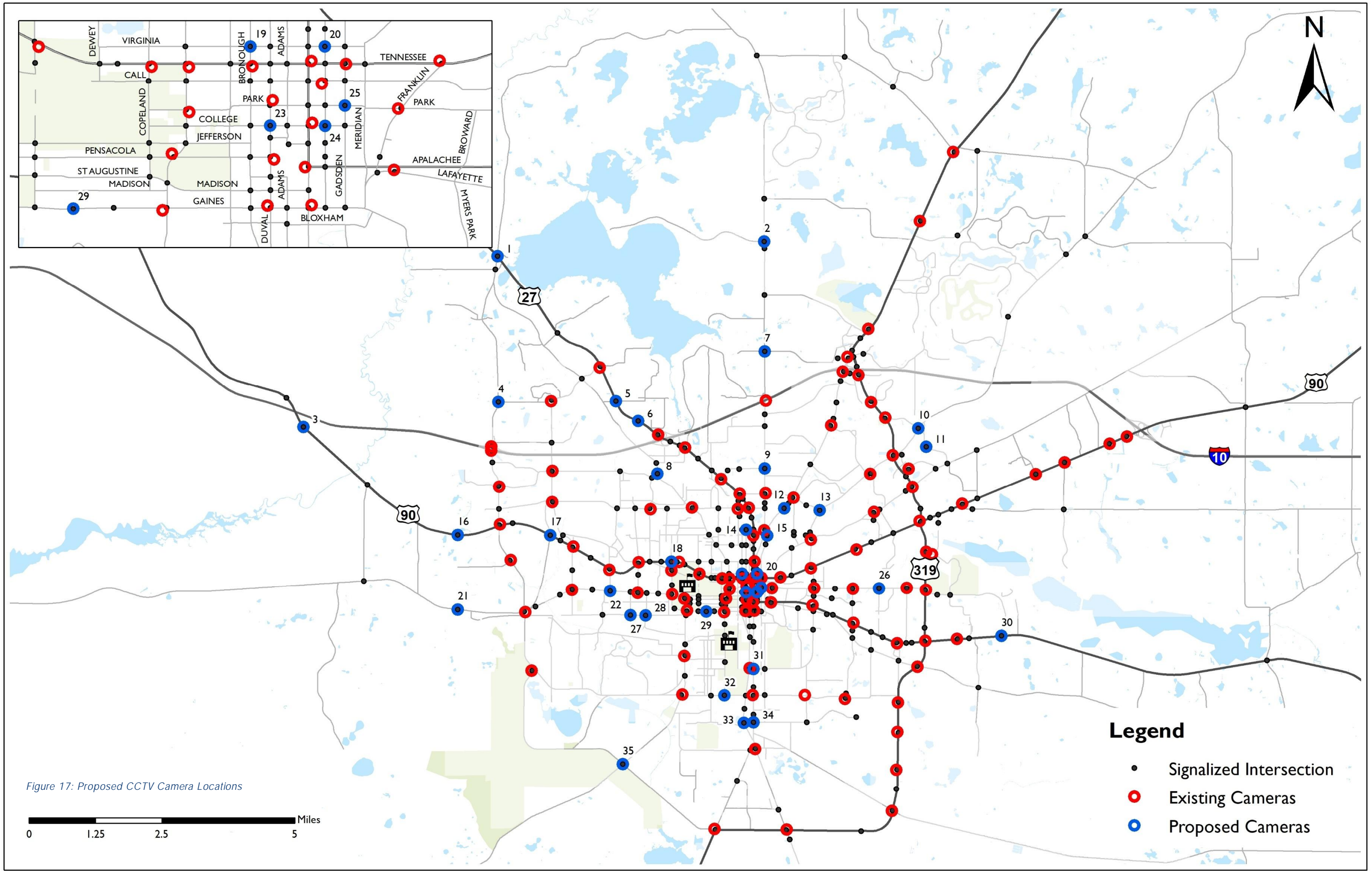


Figure 17: Proposed CCTV Camera Locations

Smart Work Zones

Smart Work Zones refer to the deployment of ITS technologies and strategies to increase the safety of construction workers, provide real-time travel information, and efficiently route motorists in and around a work zone. Portable traffic management systems, dynamic message signs, dynamic lane merge systems, and variable speed limit systems are a few examples of technologies that can be deployed individually or in combination as a smart work zone during major construction projects. They are usually deployed on a temporary basis until the interruptions from roadway construction are over.

These technologies typically produce data and images that are processed for actionable information. In some cases, the technology is designed to process the data instantly and then take immediate action without human intervention (e.g. end of queue detection triggering an upstream portable changeable message sign to alert approaching motorists). In other cases, the data is used by operators to achieve situational awareness. Once alerted to unfavorable conditions, operators quickly follow, or verify pre-planned protocols to respond to these incidents and situations⁴.

Coverage Area

The components of a smart work zone system are portable and designed to be deployed at various locations throughout the City as the need arises.

Project Benefits

Deployment of smart work zones improves traffic safety and efficiency ahead of and through construction areas. A review of 2018 crash data provided by Signal Four Analytics for the City of Tallahassee was completed and 25 work zone related crashes were reported over the course of the year. Demand for smart work zones is imminent as the number of construction projects programmed by the City of Tallahassee continues to increase.



Figure 18: Mobile Camera Trailer

Source: EarthCam.net

As a strategy to improve safety in work zones throughout the City, this project includes the procurement of portable camera trailers and queue detection trailers. These devices will allow City staff to monitor congestion at or near active work zones, as well as adherence to Maintenance of Traffic requirements. Because smart work zones typically involve the production and use of information, feedback from these systems in the form of performance metrics can be used to refine strategies to achieve the goal of improving efficiency and reducing the crash rate in construction work zones.

⁴ TxDOT. *Design Guidelines for Deployment of Work Zone Intelligent Transportation Systems*. 2018.

Flashing Yellow Arrows

Flashing yellow arrow (FYA) traffic signals feature a flashing yellow arrow in addition to the standard red, yellow, and green arrows. When illuminated, the FYA allows waiting motorists to make a left turn after yielding to oncoming traffic. This signal improves intersection efficiency by allowing more left turns during each signal cycle.

The FYA improves intersection safety by providing clearer instruction to left-turn drivers during the entire signal phase. Their use in the same signal head with a solid green arrow provides traffic engineers with more options to handle variable traffic volumes. During higher traffic volume periods of the day the solid green arrow for protected left turns can still be used if appropriate for traffic and site conditions. But when traffic volumes decrease, the permissive FYA can be displayed to reduce the delay motorists experience in making left turns.

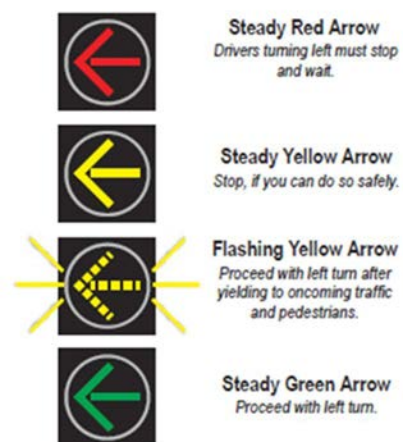


Figure 19: Flashing Yellow Arrow

Source: Indiana Department of Transportation
<https://www.in.gov/indot/3202.htm>

Coverage Area

The FYA is the City's preferred alternative over the traditional five-section head (shown in Figure 20 to the right) for protected/permissive left turn phasing. This project targets new traffic signals and upgrades to existing locations where the current traffic signals' service life has been reached.

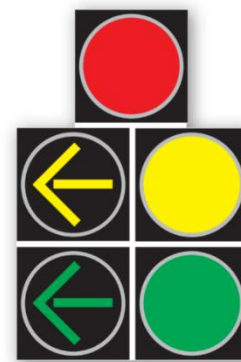


Figure 20: Five-Section Head

Project Benefits

A comprehensive National Cooperative Highway Research Program (NCHRP) study demonstrated that FYAs are superior to traditional yield-on-green indications in terms of driver understanding and compliance, reducing severe crashes by 25 percent, while at the same time delivering greater operational efficiency (less delay). Also, left-turn traps are avoided when the FYA is tied to the opposing through green indication. A left-turn trap occurs when a driver is making a left on a permissive phase and then becomes trapped in the intersection while the light turns yellow. The driver sees that the adjacent through traffic also receives a yellow light and assumes the same for the opposing through. The driver then proceeds through the intersection, possibly causing a T-bone type crash. The FYA offers better driver recognition and eliminates left turn traps, all resulting in a safer intersection. Additional benefits of the transition to FYAs include keeping motorists safer during heavy traffic, reducing delays when traffic is light, and providing more opportunities to make a left turn.

Travel Time Reliability System Expansion

Bluetooth detectors are used alongside a data aggregation software as a travel time reliability system for agencies to gather real-time traffic data. Bluetooth travel time detectors scan an area to check if any Bluetooth enabled devices are detected. Once a vehicle equipped with Bluetooth devices drives into the detection range of a Bluetooth reader, entry and exit time stamps of the devices are recorded. Therefore, travel time and travel speed can be determined between points on the roadway. The Bluetooth data gives a straight measurement of travel time between pairs of scanners. The data includes the “duration” of time required for the vehicle to pass the range detection limits of the Bluetooth scanner.

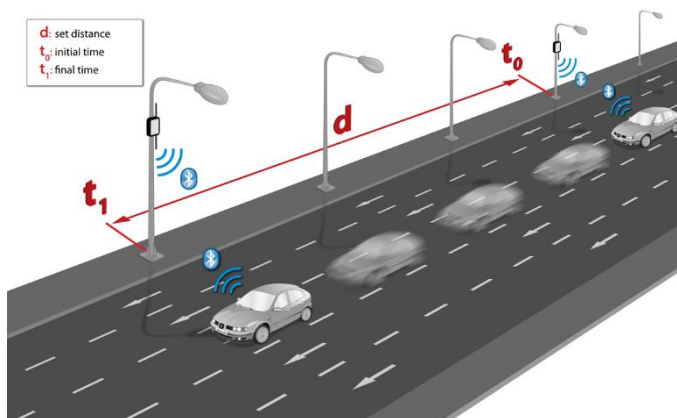


Figure 21: Travel Time Detection Concept

To achieve the City's need of managing nonrecurring congestion, expanding the travel time system is recommended in conjunction with an ATSPM dashboard. The expansion will allow the City to calculate travel times, report the performance of the system, and further analyze collected data (e.g. travel time index, buffer index, etc.). The software capabilities would include calculations from the timestamps of paired detections to identify the travel time and recorded speed across the known distance between detectors. This information can then be displayed on a website, via mobile applications, or on variable message signs installed along the road network.

Coverage Area

Bluetooth detectors should be installed at major intersections, along major arterials, and key points along freeways. Locations for additional deployments throughout the City were determined based on gaps in Bluetooth coverage, the planned communications network expansions, and other factors including:

- Locations where signal timing may need to be changed frequently based on traffic or weather-related conditions
- Locations where unplanned events frequently occur with negative impacts on progression and cause severe delays

A review of the major corridors was completed with special consideration placed on the traffic and safety focus areas throughout the City. As discussed in the Needs Assessment section, data provided by RITIS was analyzed to determine information regarding existing congestion status and bottlenecks. Specifically, a weekday travel time index analysis was conducted using data from January 1st, 2018 through December 31st, 2018. As a result of the high-level

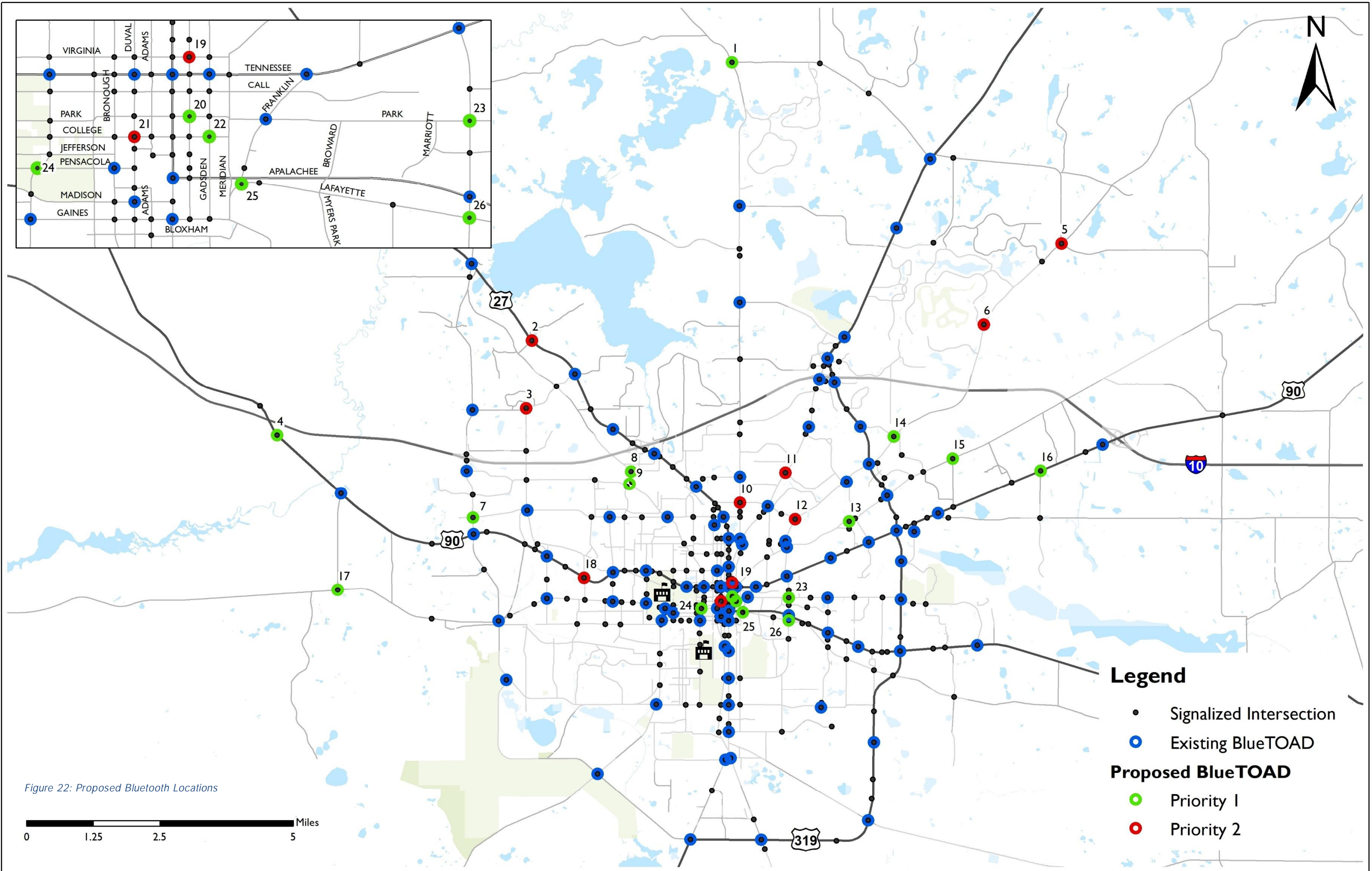
evaluation, the following arterial corridors were identified as ideal locations for deployment of Bluetooth detectors:

- | | |
|---|---|
| 1. Bannerman Road & Meridian Road | 14. Centerville Road & Fleishmann Road |
| 2. Monroe Street & Perkins Road | 15. Dempsey Mayo Road & Miccosukee Road |
| 3. Fred George Road & Mission Road | 16. Mahan Drive & Pedrick Road |
| 4. Brickyard Road & Highway 90 W Midway | 17. Blountstown Highway & Geddie Road |
| 5. Centerville Road & Roberts Road | 18. Tennessee Street & White Drive |
| 6. Centerville Road & Shamrock Street | 19. Calhoun Street & Virginia Street |
| 7. Capital Circle NW & Tharpe Street | 20. Calhoun Street & Park Avenue |
| 8. Old Bainbridge Road & Salmon Drive | 21. College Avenue & Duval Street |
| 9. High Road & Old Bainbridge Road | 22. College Avenue & Gadsden Street |
| 10. Bradford Road & Meridian Road | 23. Magnolia Drive & Park Avenue |
| 11. Armistead Road & Thomasville Road | 24. Pensacola Street & Railroad Avenue |
| 12. Betton Road & Centerville Road | 25. Franklin Boulevard & Lafayette Street |
| 13. Blair Stone Road & Miccosukee Road | 26. Lafayette Street & Magnolia Drive |

Figure 22 shows the locations graphically and the numbering of the locations in the graphic directly correlate to the list above.

Project Benefits

A comprehensive network of Bluetooth detectors allows real-time reporting of travel times. Live data is essential for critical operational decision making for events, traffic management operations, and active arterial management. It is also beneficial for archiving data captured for post-event project analysis and reporting and providing origin-destination information. These units will be used to provide real-time travel time to road users as well to provide archived travel time data to support operations and performance measurements.



Cabinet Upgrades

The traffic cabinet houses the signal controller and other vital intersection electronic equipment that manages traffic flow. This project will contribute to the modernization of the City's traffic signal system. The replacement of the traffic controllers was completed in 2016. The detectors, switches, and cabinets are all equally integral components of the traffic signal system.

The City's current cabinets are a derivative of the Caltrans 332 style cabinets, 552, 660AT and 660ATX. New cabinets will be advanced transportation controller (ATC) high density cabinets with sufficient space for ITS devices. Upgraded cabinets will provide a more favorable environment for the new controllers and their operations.

Coverage Area

The coverage area for this project is countywide and covers all intersection locations.

Project Benefits

Cabinets meeting the proposed Advanced Traffic Controller (ATC) standard facilitate the movement of vehicles, people, and goods more safely and efficiently, while also providing a growth platform for operating in a connected and autonomous vehicle (CAV) environment. Upgrading the current cabinets to ATC cabinet will eliminate the need, expense, and space required to purchase and install additional cabinets to house additional cabinet equipment (e.g. battery backup system). Having adequate space in the cabinet for additional controller cabinet equipment means an increase in the limit of input and output devices. This translates to more features for more types of users than the previous cabinet, which will prove to be useful as the transportation system becomes more complex. The option also exists to obtain an energy-efficient ATC Cabinet which has lower power requirements ultimately costing less money to operate over time.

Managed Field Ethernet Switch Replacement

This project will contribute to the modernization of the City's traffic signal system which will include the replacement of the controllers (completed), detectors, switches, and cabinets. Replacement of hardened, device level managed field Ethernet switches for ITS projects is a long-term priority for the City.

Managed switches are often referred to as intelligent switches, offering advanced control and used for applications requiring network traffic monitoring or segmentation and a high bandwidth. They use software to analyze and improve network performance, and users are able to choose the optimal operating parameters for the application at hand.

Coverage Area

The coverage area for this project is countywide and covers all intersection locations.

Project Benefits

The more complex or likely a network will grow in the future; the more managed switches are needed. The following have been identified as benefits for utilizing managed field ethernet switch⁵:

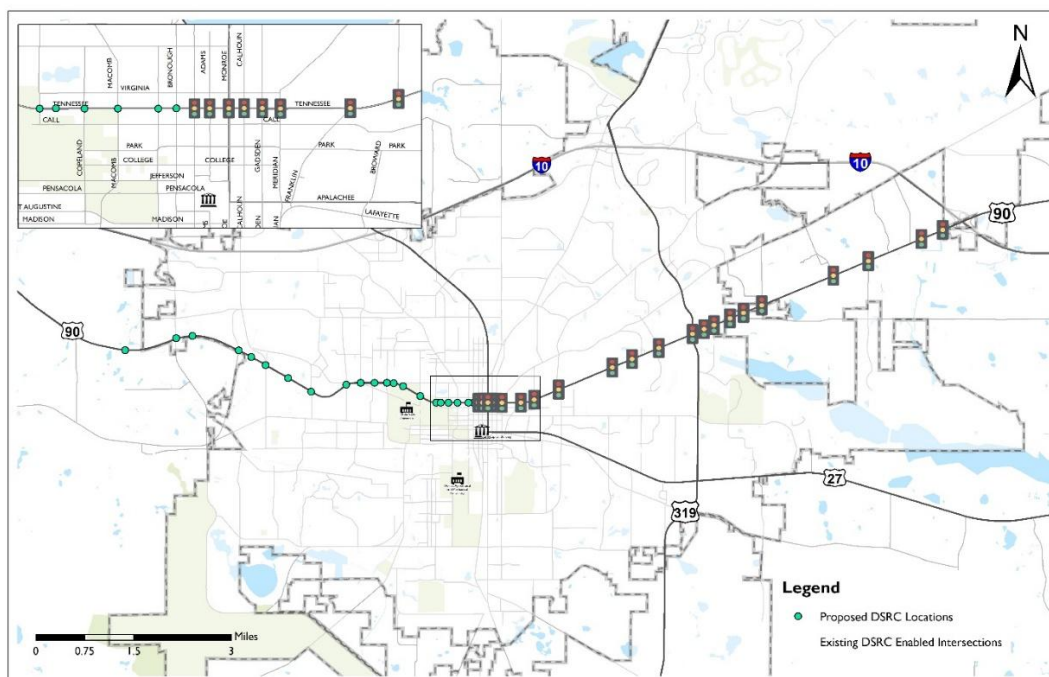
- Advanced management and troubleshooting capabilities – having the ability to manage and monitor diagnostics and network performance capabilities
- Network traffic optimization - the ability to examine the traffic flow and decide how to control and optimize it
- Cybersecurity features and security access – the ability to limit network access to only trusted devices and prevents users from setting up an unauthorized sub-network

Connected Vehicle Infrastructure

The *Emerging Technology* section included a discussion on Communications for Autonomous and Connected Vehicles. The SPaT challenge laid the foundation for DSRC deployment in the City. This project builds on that successful implementation and extends the existing DSRC corridor.

Coverage Area

Following successful testing of the pilot corridor, this project extends the DSRC deployment west along US 90 (Tennessee Street). The additional 21 intersections extends the corridor to create a 15-mile connected vehicle test bed for the City of Tallahassee.



⁵ Advantech. *Top Benefits of Using Managed Ethernet Switches*. October 22, 2018

Project Benefits

The benefits of deploying DSRC is that it helps connected vehicles identify nearby and looming dangers and allows them to react accordingly. These applications can support improvements in both safety and mobility by reducing the risks of collisions.

ATMS Upgrades

ATMS Software is a long-term investment by a traffic management agency. The City of Tallahassee has used the TATMS platform since 1999. In the last 20 years, it has been necessary for Kimley-Horn to upgrade KITS (along with all major ATMS software suppliers in the industry) several times due to the continual evolution of software technology, computing hardware, and operating systems. For example, Windows 7™ is officially at end-of-life and will no longer be supported by Microsoft™ at the end of 2019.

While KITS is compatible today with Windows 10, and Windows 10 will likely be supported by Microsoft for at least the next five years, there is no guarantee that the operating software will not be replaced. Additionally, new technologies will be invented that could increase the efficiency or capabilities and may require updates to the ATMS software.

Coverage Area

The coverage area for this project is countywide.

Project Benefits

While standard procurement of software includes a warranty against defects, standard provisions of warranty do not typically include access to new features or functionality that is developed after procurement. Access to new features and modules, as well as support from developers or customer service representatives, is usually packaged in a service from the provider called software maintenance. Maintenance agreements protect the agency against unknown changes to underlying technologies such as operating systems, as well as providing agency access to upgrades and features at a lower cost of acquisition.

Software maintenance may provide other services such as off-site database backup redundancy, remote and on-site diagnostic support from software professionals, and peer-to-peer technology transfer opportunities. Budgeting for software system maintenance, just like field hardware maintenance, typically proves less costly over the long-run than a strategy of replacing mission critical software on a 10 to 15-year basis when the underlying hardware and software tools are at end-of-life.

TRANSIT MANAGEMENT

Transit service provided to the traveling public is one of the most important services for a City and a region to focus on due to its cross-jurisdictional services and connection with the arterial and freeway transportation networks. Coordination with local transit management agencies was

an important component while compiling this ITS Master Plan, in order to incorporate multi-modal users of the network and support mode shift. There is one major transit management agency in the Tallahassee area, StarMetro.

StarMetro manages the regional transit bus system including vehicle management and voice communications with each transit vehicle. StarMetro is responsible for regional transit planning, transit public information, the management and operation of regional bus and dial-a-ride services.

The primary objective of this functional area is strategies targeted at incorporating transit services in recurrent and non-recurrent congestion management. Transit agencies should be involved in the sharing of traffic information that may impact services including road construction, service complaints, special events, and road closures. Based on this need, the recommended strategy for consideration are listed below.

Transit Signal Priority

The primary goal of Transit Signal Priority (TSP) is to increase transit ridership by reducing bus travel times and improving on-time bus performance through minimizing delay at the signalized intersections. There are several available technologies for achieving TSP detection including optical and radio, and there are two types of TSP triggering approaches including locally triggered and centrally triggered.

For a locally triggered or distributed system, traffic signal equipment used for TSP operations works with the same preemption equipment allowing emergency vehicles to communicate with traffic signals. However, unlike the "high priority" emitters used by emergency vehicles, buses use "low priority" emitters. These emitters are installed inside the bus and typically cannot be controlled by the bus operator. Also, whereas high priority operations will truncate or skip signal phases, low priority operations do not skip phases, and the timing changes are limited to a portion of the signal cycle time. Low priority operation increases the likelihood that the buses will not stop at the signal, but it is not guaranteed. If a high priority emergency vehicle preemption call is received at an intersection after a low priority TSP call is received, the low priority call will be cancelled in order to serve the high priority call.

A TSP system adjusts traffic signals using sensors or probe vehicle technology to detect when a bus nears a signal-controlled intersection. When a vehicle is detected, and approved control strategies are met, the signal modifications typically turn the traffic signals to green sooner or extend the green phase longer thereby allowing the bus to more quickly pass through the intersection.

GPS-based TSP systems use pre-defined GPS mapped zones for each traffic signal to trigger TSP signal calls. When a bus enters the pre-defined zone, the TSP call is made via radio, from the on-board bus equipment to a phase selector at the traffic signal controller. When the bus leaves the zone, the call is terminated.

In a centrally triggered or centralized TSP control system, the vehicle communicates directly with a traffic management center. With this type of system, no preemption hardware is needed on the vehicle or at the intersection. A robust communication network is required that connects vehicles and intersections to the traffic management center. The entire system is managed and monitored from a central location.

Coverage Area

StarMetro, the transit system, for the City of Tallahassee, operates 12 cross-town routes, as well as university shuttles for Florida State University (FSU) and Florida Agricultural & Mechanical University (FAMU). A pilot TSP project along Tennessee Street has been discussed, however no additional information has been provided by StarMetro about this project or plans for future TSP deployments.

Project Benefits

According to the National Association of City Transportation Officials (NACTO), active TSP can reduce transit delay significantly. In some cases, bus travel times have been reduced around 10%, and delay was reduced up to 50% at target intersections.

TRAVELER INFORMATION

Motorists have an increasing desire and need for accurate, timely information to help them decide how to reach their destinations quickly and safely. Traveler information falls into two broad categories: pre-trip and en-route. This information may be distributed using several different communication technologies. Public agencies have historically collected the real-time information and distributed roadway conditions through either public or private channels.

The primary objectives of this functional area are strategies targeted at incorporating new technologies and systems to support additional real-time traffic condition and traveler information dissemination to the public. Based on this need, recommended strategies that provide travelers with a one-stop-shop for public information – incident warnings, work zone, and events – are described below.

Website Connectivity

Mobile technology is shifting the way transportation-related information is disseminated and obtained. The ability to access real-time information on smart phones or tablets provides a channel through which transportation agencies can push information to system users (internal and external). The City's need is to provide travelers with real-time travel-times, incident information, weather/roadway conditions, roadway construction activities, transit delay information, travel mode options and locations, parking availability, and other travel-related information to give travelers an opportunity to optimize their trips.

Currently the City disseminates information regarding current traffic conditions to motorists using the Driver Information System (<https://www.talgov.com/gis/driverinfo/default.aspx>) and the City of Tallahassee Twitter account. This project involves a reevaluation of current City processes to identify opportunities to provide more accurate, real-time data across multiple platforms. With information about travel conditions, travelers can make intelligent decisions about alternative routes or modes, and take mid-trip corrective actions to avoid delays.

Coverage Area

The coverage area for this project is countywide as the website will be accessible to all City residents.

Project Benefits

Website platforms are a popular way to make traveler information available to the public in a consolidated and easily accessible manner. The City should always consider opportunities to provide information through a mobile application, but should further investigate how the application is developed and where it would reside.

I-10 Trailblazers

Trailblazer signs are used to guide motorists along alternate routes during major incidents and freeway ramp closures. Typically, the signs route motorists exiting the freeway or inform motorists already traveling the alternate route to continue bypassing the freeway to entrance points further downstream.

A recommended strategy to address the traffic management needs related to incident management is expanding the use of dynamic signage to provide traffic information to travelers. Partnering the existing DMS deployed along I-10 with arterial trailblazer DMS would allow the City of Tallahassee to guide traffic along designated routes during incidents or special events, thus increasing throughput and allowing local streets to return normal operations quicker.

Trailblazer signs are any sign that serves the purpose of providing route guidance and traveler information to traffic along local arterials. Trailblazers can include a static sign (i.e. typical roadway guidance signs), an extinguishable sign (i.e. on/off), or arterial DMS (i.e. fully changeable matrix). Static signs and extinguishable signs provide information limited to the direction of travel only, and are most appropriately used during the deployment of one particular alternate route during an incident on another route. A static sign with a highway shield and an extinguishable message sign with multiple directional arrows can be installed at key decision points along alternate routes on existing traffic signal poles, streetlight poles, or new sign posts.

These signs in tandem are able to guide vehicles along pre-defined routes to allow the City to minimize traffic delays along local streets due to major incidents. Full DMS allow for the flexibility in displaying a variety of route guidance messages and incident information, as well as provide

the capability of displaying other special event messages. However, fully dynamic signs need to be larger to provide a variety of useful traveler information.

Therefore, construction costs and impacts are higher for full dynamic trailblazers than the static message sign option. Trailblazers implemented in concert with timing plans can serve to flush out traffic during incidents.

Coverage Area

Signs are typically installed at one or a combination of the following locations:

- In advance of an intersection on new poles to advise drivers of an upcoming decision point
- In advance of an intersection on existing luminaire pole
- At an intersection on existing traffic signal structure

The exact location and type of sign will be dependent on environmental conditions, field conditions, and structural evaluation. If smaller static message signs are deployed, existing traffic signal and street lighting poles may be utilized for the trailblazer signs instead of new sign posts.

Preliminary locations were identified by the City for an initial phase of trailblazer deployment, as shown on the map on the following page. FDOT District 3 and the City are evaluating these locations and developing a Concept of Operations in an ongoing Trailblazer Feasibility Study.

Project Benefits

Trailblazers need to be installed as a complete system to be fully effective. The optimal location for deployment is along routes where considerable traffic diverts off the freeway and utilizes arterials for cut-through routes. Deployment of this system provides the ability to transmit information on traffic flow and incidents to a greater number of travelers. This, in turn, can lead to benefits such as reductions in delays and traffic volume if travelers react to traffic advisories (whether via message signs, advisory radios systems, websites, applications, etc.) and use alternate routes or alternate modes of transportation.

PERFORMANCE MEASURES

Performance monitoring is the collection, analysis, and reporting of data to track and assess resources used, work produced, and whether specific goals are achieved. An important aspect of performance monitoring is an analysis of why goals are (or are not) being achieved, and accomplishments to meet goals.

Performance monitoring uses the science behind what agencies are doing to justify public funds. This approach is achieved through a tool set that provides both the general public and public agency staff with a way to assess the transportation system operations and identify the strengths and weaknesses of the system in order to maintain a high level of service to the public. Without consistent performance data updates, it is difficult to maintain reliable traffic system

performance. Through monitoring system performance, an agency can leverage a funding strategy to most efficiently improve the transportation system.

ATSPM Dashboard

For the City to successfully continue deployment of ITS central equipment, collection and documentation of benefits realized by City staff is necessary. This strategy involves gathering “big data” generated by all the deployed technologies and performing analytics to improve mobility and safety. Ultimately, performance metrics are measures used to assess the performance of a transportation system and capture the economic benefits of investments, tracking the progress made towards reducing congestion and improving safety.

Performance monitoring, in essence, requires data to examine progress against goals. Based on the goals established for this program, specific performance measures are first established, including frequency and method of data collection. Automated Traffic Signal Performance Measures (ATSPMs) consist of a high-resolution data-logging capability added to existing traffic signal infrastructure and data analysis techniques. ATSPMs provides agency professionals with the data to drive a dashboard application to provide actionable information to identify and correct deficiencies. With dashboards, operators can manage traffic signal maintenance and operations in support of an agency’s safety, livability, and mobility goals.

The first phase of ATSPM implementation in Tallahassee started in the summer of 2017, where FDOT in partnership with the City of Tallahassee deployed ATSPM along the Mahan Drive (US 90) SPaT corridor. The City has since implemented several improvements to signal timing using the ATSPM metrics and has expanded the ATSPM system to all signals.

In an effort to reduce staff time spent analyzing data and improve the depth and breadth of traffic signal performance, it is recommended that the City of Tallahassee develop an ATSPM dashboard. The dashboard will provide near real-time transportation network performance information. The dashboard will help City staff analyze data to determine how the transportation system is operating compared with recent traffic trends and performance metrics associated with individual corridors. The system will automatically flag current operations that are outside accepted performance parameters. These checks are also monitored to determine if an occurrence is a one-time instance or an ongoing situation.

Coverage Area

The coverage area for this project is countywide.

Project Benefits

According to FHWA, the technology is cost effective, as ATSPMs can be applied to a wide range of signalized intersections and use existing infrastructure to the greatest extent possible. ATSPMs will also support the validation of other technologies and operational strategies, such

as adaptive signal control and CV applications. Several benefits of an ATSPM implementation include:⁶

- Increased Safety: A shift to proactive operations and maintenance practices can improve safety by reducing the traffic congestion that results from poor and outdated signal timing.
- Targeted Maintenance: ATSPMs provide the actionable information needed to deliver high-quality service to customers, with significant cost savings to agencies.
- Improved Operations: Active monitoring of signalized intersection performance lets agencies address problems before they become complaints.

ATSPMs uses the science behind what agencies are doing to demonstrate to the public that their dollars are being spent wisely. This approach is often achieved through a dashboard that provides both the general public and public agency staff with a way to assess how the transportation system is operating and to identify the strengths and weaknesses of the system in order to maintain a high level of service to the public. Without consistent performance data updates, it is difficult to maintain reliable traffic system performance. Performance measures build trust and a culture that agencies work for the public. The City currently has an ongoing subscription service with Traffop to provide a real-time ATSPM dashboard. This project includes the yearly service as well as any necessary future enhancements.

BICYCLE DETECTION

The City has invested in bike safety through the use of specific traffic signal applications and movement compliance at intersections. The primary objective of this functional area are strategies targeted at supporting bicycle movements through expanded ITS related safety applications. These strategies include innovative technology that aim to improve the safety and mobility of multi-modal facilities. Based on this need, recommended strategies for consideration are listed below.

Bicycle Detection Expansion

The City of Tallahassee's population demographics, including two major universities, make it critical to provide multiple transportation options around the City. These modes are important for daily travel but also for recreational purposes to draw in visitors to the City and help the City maintain its desired character and community feel. Tallahassee has recently earned the coveted Silver Level Bicycle Friendly Community (BFC) designation. This award recognizes communities for actively supporting bicycling by providing safe accommodations and encouraging community members to bike for recreation and transportation. As one of only seven Florida communities to receive the Silver Level Bicycle Friendly Community designation, installation of loops or other technology for detecting bicycles at intersections will allow the City to continue the trend of bicyclist safety.

⁶ US DOT FHWA. *EDC-4: Automated Traffic Signal Performance Measures (ATSPMs)*. 2019.

Bicycle detection is used at actuated signals to alert the signal controller of bicycle crossing demand on a particular approach. Bicycle detection occurs either through the use of push-buttons or by automated means (e.g. in-pavement loops, video, microwave, mobile applications, etc.). Inductive loop vehicle detection at many signalized intersections is typically calibrated to the size or metallic mass of a vehicle. For bicycles to be detected, the loop must be adjusted to account for bicycle metallic mass. Otherwise, undetected bicyclists must either wait for a vehicle to arrive, dismount and push the pedestrian button (if available), or cross illegally. In lieu of loop detection, video or mobile applications may provide increased detection capabilities. Proper bicycle detection meets two primary criteria: 1) accurately detects bicyclists; and 2) provides clear guidance to bicyclists on how to actuate detection (e.g., what button to push, where to stand).

Coverage Area

Ideal candidates for bicycle detection include locations where cyclist volumes are heavy as well as locations where there are marked and signed routes for bicyclists. A review of data available provided by the Tallahassee–Leon County Planning Department was used to evaluate bicycle trip patterns. The data available through the planning department provides an overview of popular routes for cyclists based on yearly counts conducted at locations with high bicycle traffic. Data for the most recent four years were provided and the locations with the highest average bicyclists per hour are listed in the table below.

Table 6: Average Bicyclists per Hour – 2014 to 2018

Intersection	Average Bicyclists per Hour
Call Street at Stadium Drive	52.8
Tennessee Street at Call Street	52.8
Chieftan Way at Pensacola Street	21.5
Call Street at Stadium Drive	21.5
Call Street at Chapel Drive	17.2
Pensacola Street at Varsity Drive	14.3

Currently in-pavement loops are deployed at three locations near FSU, specifically along MLK Boulevard. Higher bicycle volumes are concentrated around the FSU campus as the table above and supporting data show. The top three locations identified below are ideal candidates for additional bicycle detection deployments near FSU:

- Call Street at Stadium Drive
- Tennessee Street at Call Street
- Chieftan Way at Pensacola Street

Project Benefits

The City currently uses in-pavement, inductive loops for bike lane detection. According to NACTO, the observed benefits for bicycle detection include:

- Improves efficiency and reduces delay for bicycle travel
- Increases convenience and safety of bicycling and helps establish bicycling as a legitimate mode of transportation on streets
- Discourages red light running by bicyclists without causing excessive delay to motorists
- Can be used to prolong the green phase to provide adequate time for bicyclists to clear the intersection

The City's existing traffic signal controllers have the capability to provide bicycle phase timings when a bike-only detector is triggered. Since the City has already deployed in-pavement bicycle detection, and it appears to be operating successfully and accurately, the City should continue to use inductive loops for bicycle detection. As additional intersections are added, inductive loops for bicycles should be considered to expand bicycle detection countywide. Additionally, deployment of a mobile application using GPS-based advanced detection that integrates with bicycle detection would further improve bicyclist safety and efficiency.

TRANSPORTATION MANAGEMENT CENTER

Traffic Signal Management Plan

A Traffic Signal Management Plan is designed to provide step-by-step instructions for current activities related to traffic signal design, operations, maintenance, and management. This plan is intended to clearly define objectives, relating them to the City's goals, and detail a structure to show how the activities of all staff involved in traffic signal management support those objectives.

This plan not only offers a platform for introducing new staff to the processes relevant to their roles, but illustrates the City's structured approach to traffic signal management. The plan will ultimately contribute to the following:

- Provide a succinct description of all activities required for agency staff to manage the traffic signal program
- Specify an approach to strategically shift maintenance, operation, and design from reactionary to proactive
- Effectively plan for needed capital improvement
- Improve internal and external support for the traffic signal program

An additional component of the Traffic Signal Management Plan is a staffing plan.

Coverage Area

This plan will be used by Traffic Signal System Operations staff at the TMC, Field Operations staff, and Signal Design staff in the Traffic Engineering Department.

Benefits

Developing a Traffic Signal Management Plan will streamline processes and create a more efficient training platform for newer TMC staff members. The detailed staffing plan would document future staffing needs and responsibilities. A staffing plan ensures appropriate staffing levels to accommodate the recommended strategies and technologies suggested within this Master Plan.

COMMUNICATIONS

The element of ITS infrastructure that ties everything together is communications. The quality, type, and distribution of communication infrastructure has profound impacts on the City's ability to expand its current ITS applications and deploy new applications. The City currently has 190 miles of fiber optic cable. Additionally, the City has buried fiber, which unlike aerial, is protected from weather damage by being buried below the freezing point in the ground. This makes buried fiber deployments more reliable than aerial fiber deployments in areas that experience extreme weather (e.g. hurricanes, freezing temperatures, etc.).

The City's current communication system includes both fiber optic cable and cellular modems. The ATMS fiber infrastructure includes six existing fiber-optic trunk lines, with fiber counts on each cable varying throughout the City (36-72 strands). A fiberoptic backbone was also installed along I-10 and US 90 from western Gadsden County to the RTMC. This 96-fiber trunk line expanded the freeway management system by incorporating the Tallahassee interstate system. The following sections present the high-level bandwidth analysis accounting for all recommended ITS devices previously discussed, as well as the recommended strategy for developing a more robust communications network.

Bandwidth Demand

At a high level, ITS and signal system elements are considered field devices. Communicating with field devices require communications bandwidth. With the proposed ITS technology expansion and upgrades, an increase in bandwidth to support the expanded systems is a necessary step for the City. This section reviews the bandwidth associated with center-to field links as well as the anticipated center-to-center requirements. Table 7 presents a high-level summary of the aggregate bandwidth demand for the planned system. The projected number of devices is based on the previously recommended number of additional devices. If no projected devices were quantified a ten percent growth rate was assumed.

Current, planned, and future connected vehicle devices account for the majority of the anticipated bandwidth demand. A conservative estimate of connected vehicle unit bandwidth demand was used to account for emerging technologies and potential unforeseen technological advancements. This assessment is important for developing an understanding of field-to-center bandwidth needs as well as center-to-center bandwidth needs for the back-up data center and gaining an overall perspective on system bandwidth utilization.

Table 7: Preliminary Bandwidth Analysis

	DEVICE	EXISTING NO. OF DEVICES	PROJECTED NO. OF DEVICES	PER UNIT BANDWIDTH DEMAND (MBPS)	BANDWIDTH DEMAND (MBPS)
Traffic Management	Traffic Signal Controllers	357	393	0.10	39.3
	UPS	117	129	0.02	2.58
Traffic Management Subtotal					41.88
Traffic Monitoring	Microwave Detection	36	40	0.10	4.0
	HD CCTV Camera	1	36	3.50	126
	Trailblazers	-	13	1.00	13.0
	Road Weather Information System (RWIS)	1	2	0.02	0.04
	Bluetooth Detection	80	106	0.10	10.6
Traffic Monitoring Subtotal					153.64
Connected and Autonomous Vehicles	DSRC Radios	22	43	27	1,161
Connected and Autonomous Vehicles Subtotal					1,161
Center-to-Center Connections	RTMC to City Hall	1	1	10,000	10,000
	RTMC to FDOT	1	1	10,000	10,000
	Field Hub A to RTMC	1	1	10,000	10,000
	Field Hub B to RTMC	1	1	10,000	10,000
	Field Hub C to RTMC	1	1	10,000	10,000
Center-to-Center Connections Subtotal					50,000

The high-level bandwidth analysis was used to guide preliminary communications network recommendations.

Communications Network – Redundancy Expansion

A robust fiber network is essential for maintaining communication with the recommended expanded ITS infrastructure. A high-level analysis was conducted to develop communications infrastructure and topology recommendations. Field devices were grouped with other devices along similar corridors or within close geographic proximity to form approximately 31 communication groups. To allow for future expansion within communication groups, it is recommended that initial grouping of network devices include approximately 15 devices per group. The communication groups were geographically grouped into rings along fiber trunk routes in a manner that attempted to balance bandwidth demands equally across all rings. Locations for potential field hubs and fiber expansion along new routes were identified to support the different communication groups.

Field hubs are central communication points to which various branch communication lines and field devices are connected. Field hubs are used to collect field device data, then transmit the data directly to the RTMC over the fiber trunk lines, thereby consolidating network traffic and

optimizing the use of the available fiber. This provide scalability and flexibility for the overall network.

FDOT District 3 currently has a communication hub at the western extents of the City along I-10. However, it is recommended that future communication planning consider where fiber upgrades will be required to support the field network. New field hubs may be needed to support the network as well. In addition, hubs can also provide improved accessibility to multiple infrastructure assets.

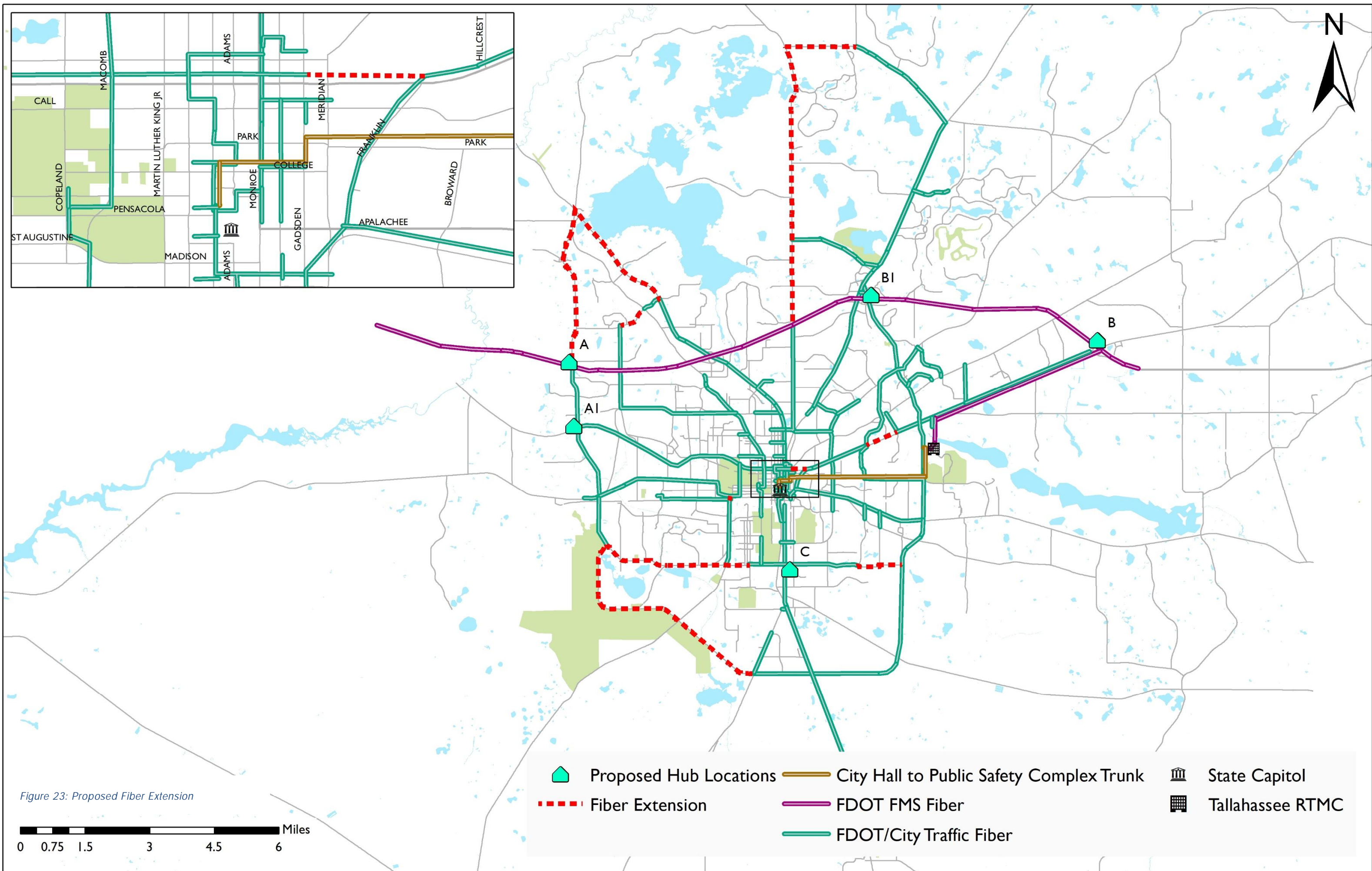
Preliminary proposed hub locations, areas of fiber expansion, and the proposed ring topology are illustrated in Figure 22 and Figure 23.

Coverage Area

The coverage area for this project is countywide and encompasses the current and future extents of the fiber network.

Benefits

With the bandwidth requirements and application impacts being preliminary estimates, the best way to plan for the future of the ITS deployments and connected vehicles is to provide high bandwidth capable infrastructure at points along important arterials and freeways. Fiber optic cable provides the most reliable, flexible, and robust communications infrastructure for supporting the network requirements of connected vehicles and other emerging technologies.



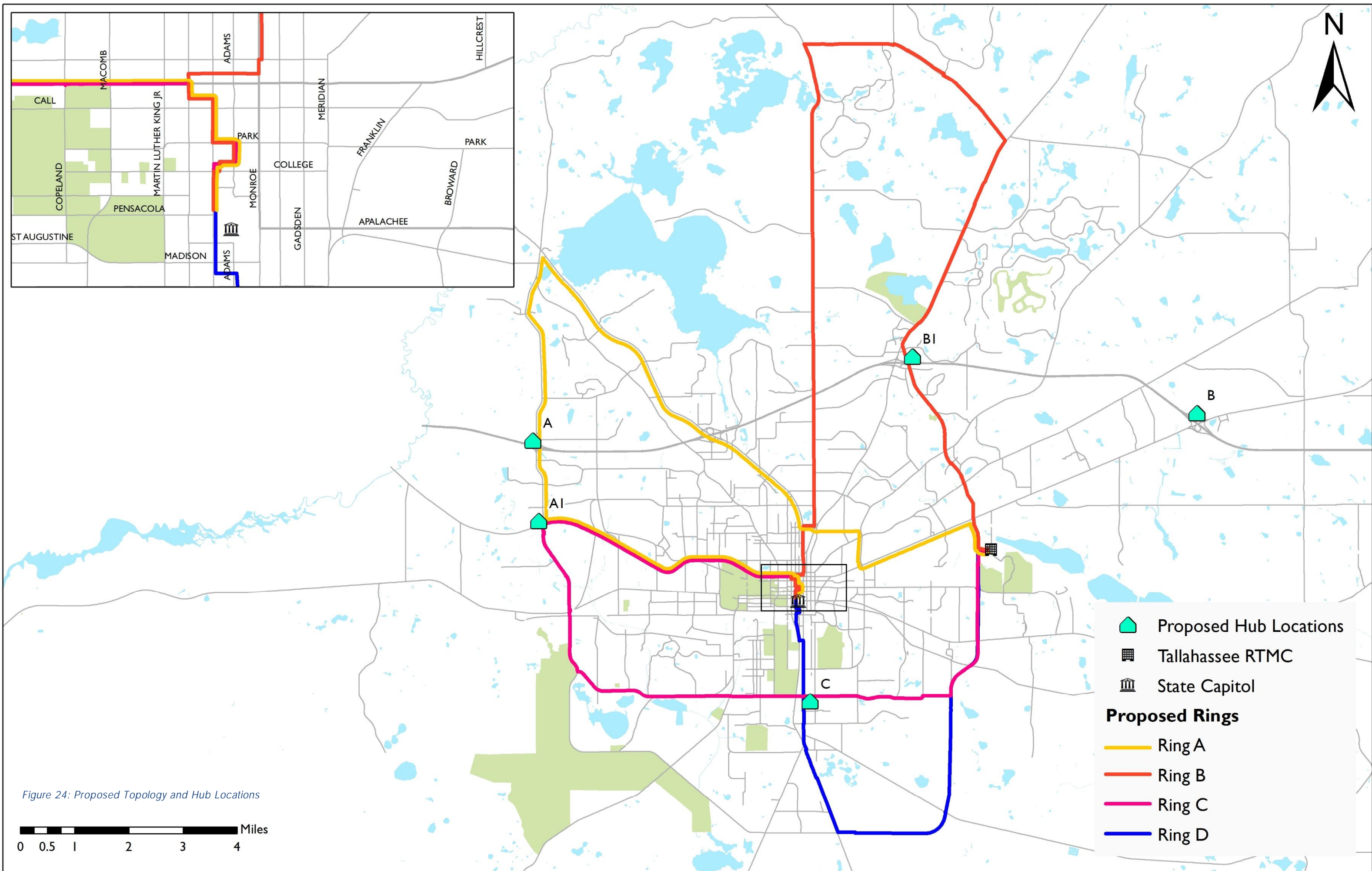


Figure 24: Proposed Topology and Hub Locations

Budgetary Estimates

High-level estimated costs were prepared for each recommended project. Total cost components include design, construction, capital, and operations and maintenance as applicable. Various high-level assumptions were made to serve as the basis for the cost analysis:

- Unit cost, unless otherwise noted, are based on FDOT historical project bid costs.
- Unit costs not available through FDOT are sourced from similar project deployments completed by other transportation agencies.
- A preliminary number of locations were assumed for non-geographic projects, where specific locations are not identified.
 - Flashing yellow arrow (FYA) program cost based on a project of 20 locations.
 - System Detectors program cost based on a project of 30 locations.
 - Switch replacement and cabinet upgrade projects based on number of traffic signals (357).
- Transit Signal Priority project cost developed based on preliminary route selected.
- Trailblazer project cost based on preliminary locations identified in early concept alternatives.

The table below presents each estimated total project cost. The costs are general and presented more as a means for planning level funding requests. High-level project costs with a breakdown by project component is provided in Appendix B. Detailed cost estimates will require refinement during early project level concept development and scoping.

Table 8: Estimated Project Costs

PROJECT TITLE	TOTAL COST
Adaptive Traffic Signal Control (US 27)	\$1,120,000
Adaptive Traffic Signal Control (US 90)	\$1,430,000
System Detectors	\$110,000
CCTV Cameras - Phase 1	\$210,000
CCTV Cameras - Phase 2	\$130,000
Smart Work Zones	\$20,000
FYA Upgrades	\$120,000
Travel Time Reliability System - Phase 1	\$230,000
Travel Time Reliability System - Phase 2	\$140,000

PROJECT TITLE	TOTAL COST
Cabinet Upgrades	\$7,570,000
Managed Field Ethernet Switch Replacement	\$2,180,000
Connected Vehicle Infrastructure	\$860,000
CCTV Camera Upgrade	\$980,000
ATMS Upgrades	\$30,000
Transit Signal Priority	\$400,000
Website Connectivity	\$100,000
I-10 Trailblazers	\$3,267,000
ATSPM Dashboard/ Performance Monitoring	\$70,000
Bicycle Detection	\$60,000
Traffic Signal Management Plan	\$50,000
Communications Network – Redundancy Expansion	\$7,950,000

Implementation Plan

The City of Tallahassee recognizes the importance of implementing ITS projects. The goal is to better manage traffic and provide a safe travel experience for passenger vehicles, transit, as well as bicyclists and pedestrians. The implementation plan provides guidance to assist the City in implementing the recommendations in a prioritized, efficient manner. A high-level prioritization process was developed to help objectively guide project programming. Projects were prioritized based on four criteria which align with the stated ITS vision. Each of the four criteria were scored and weighted to create a final score for each project. This section summarizes the prioritization criteria and details the prioritization process.

PRIORITIZATION CRITERIA

A methodology was developed to provide a consistent approach to prioritizing project recommendations demonstrating fiscal responsibility and accountability. All recommended projects identified in the previous technical memorandum were scored and prioritized using the methodology described in this section.

Criteria Development

Criteria was developed to provide direction and guidance for project prioritization. The following criteria reflect the City's strategic approach to expansion and is consistent with the vision for the ITS Master Plan. The projects were analyzed based on the following criteria:

- Safety
- Mobility
- Accountability
- Regional Support

Project prioritization relied on a qualitative assessment to evaluate the project's potential impacts and a data driven process to estimate benefits. Current data used for this process include datasets such as statewide crash data, Regional Integrated Transportation Information System (RITIS), evacuation routes, and estimated infrastructure costs.

Project Evaluation

Proposed projects were organized into two categories: geographic and non-geographic. Those with defined project locations were classified as geographic projects and those without defined locations were classified as non-geographic projects. A high-level prioritization rubric was developed to help objectively guide the process. Each recommended project was evaluated using the developed prioritization rubric. Points were awarded to each project based on how well it satisfied each criterion. Projects with higher scores are identified as higher priorities than those earning lower scores.

Additionally, for those geographic projects that received identical scores, these projects were scored again based on a secondary rubric to determine which phase was a higher priority. The methodology for evaluating projects in both categories (geographic and non-geographic) is detailed below.

Safety

Determining where safety concerns exist and developing potential solutions to address these concerns is a priority for the City. Safety accounts for 30% of the total prioritization score and is an important element of project evaluation. For all projects, a qualitative safety assessment was completed. National case studies similar in nature to the proposed project were used as reference to determine how the proposed project will enhance the safety of the transportation system. A table summarizing the criteria is provided for reference at the end of this section.

For geographic projects, a secondary rubric was developed including a data driven safety criteria. One year of crash data, provided by Signal Four Analytics, was mapped to determine the number of crashes within the extents of a given project. Higher priority is given to projects with a higher number of crashes along the project corridor. Additional safety scoring is based on whether the project is identified as an evacuation route. More points were awarded for projects that support evacuation routes.

Table 9: Safety Criteria

CRITERIA	DATA SOURCE	RESPONSE	SCORE
Number of Crashes	Signals 4 Analytics https://s4.geoplan.ufl.edu/	300+	3
		151-300	2
		0-150	1
Percentage of Project Corridor	Florida Division of Emergency Management https://maps.floridadisaster.org/county/EVAC_LEON.pdf	> 66%	3
Along an Evacuation Route		33% - 66%	2
		33% <	1

Mobility

Mobility is directly correlated to congestion levels and is a key consideration for project prioritization. Mobility accounts for 20% of the total prioritization score and is an important element of project evaluation. For all projects, a qualitative mobility assessment was completed. National case studies similar in nature to the proposed project were used as a reference to determine how the proposed project will mitigate recurring and non-recurring congestion. A table summarizing the criteria is provided for reference at the end of this section.

For geographic projects, a secondary rubric was developed including a data driven mobility criteria. Regional Integrated Transportation Information System (RITIS) Travel Time Index (TTI) data was utilized to identify corridors that have a higher-than-average level of congestion. This criterion awards more points to projects that will impact areas of higher congestion. One year of TTI data was pulled for all project corridors from January 2018 to December 2018. Points were awarded based on thresholds defined in a recent study⁷ completed by the University of Alabama.

This study quantified congestion using the national performance management research data set and selected TTI thresholds to reflect user perceptions of congestion. Additional mobility scoring is based on whether the project impacts corridors with higher average annual daily traffic (AADT) volumes. Truck volumes were also taken into consideration, with more points awarded to projects along corridors with higher truck AADT.

Table 10: Mobility Criteria

CRITERIA	DATA SOURCE	RESPONSE	SCORE
TTI	RITIS	> 2.0	3
		1.5 - 2.0	2
		1.5 <	1
AADT	FDOT Transportation Data and Analytics Office	40,000+	3
		20,000 - 40,000	2
		0 - 20,000	1
Truck AADT	FDOT Transportation Data and Analytics Office	15,000+	3
		6,000 - 15,000	2
		0 - 6,000	1

Accountability

Project accountability refers to the benefits realized for each recommended project post implementation. A qualitative accountability assessment was completed using the US Department of Transportation's Research and Innovative Technology Administration (RITA) benefit cost library. Benefit-cost ratios of projects similar in nature were aggregated to estimate project performance post implementation. This criterion awards more points to projects with a higher estimated benefit-cost ratio. This criterion is 25% of the total prioritization score.

⁷https://res.mdpi.com/data/data-02-00039/article_deploy/data-02-00039.pdf?filename=&attachment=1

Table 11: Accountability Criteria

CRITERIA	DATA SOURCE	RESPONSE	SCORE
B/C Ratio	High-level estimated costs and anticipated benefits	> 15	3
		5 – 15	2
		5 <	1

Regional Support

In some instances, it may be possible to have a proposed project satisfy a significant need that is not demonstrated through available datasets. Consequently, additional consideration was given to stakeholder input on the importance of the needs specific to each project and is accounted for in the regional support criterion. This criterion awards more points to projects that are a consistent priority for local agencies and have strong support of public officials. Points awarded are based on stakeholder input. This criterion is 25% of the total prioritization score.

Weighting Scale

The weighting scale was designed with the understanding that each criterion is important to the project as well as overall system success. The weighting was developed to be consistent with the vision and goals established for this Master Plan. Points awarded for each category are weighted based on the percentages detailed below.

- Safety (30%)
- Mobility (20%)
- Accountability (25%)
- Regional Support (25%)

As a reference, a summary of the prioritization rubric is included in Table 12. Table 13 describes the secondary geographic that was used to differentiate priorities of projects that received identical scores.

Table 12: Prioritization Rubric

CRITERIA	DESCRIPTION	RANKING	RANGE	NO. OF POINTS
Safety	The project's effect on reducing accident rates as well as pedestrian and bicycle safety was assessed. National case studies similar in nature to the proposed project were used as reference to determine how the proposed project will enhance the safety of the transportation system.	High	Project provides significant reduction in crash rates.	3
		Medium	Project provides moderate reduction in crash rates.	2
		Low	Project provides some reduction in crash rates.	1
Mobility	The project's ability to improve or enhances movement of passenger vehicles and freight was assessed. National case studies similar in nature to the proposed project were used as a reference to determine how the proposed project will mitigate recurring and non-recurring congestion.	High	Project provides significant improvement to movement of vehicles and freight.	3
		Medium	Project provides moderate improvement to movement of vehicles and freight.	2
		Low	Project provides some improvement to movement of vehicles and freight.	1
Accountability	RITA's benefit cost library was used to determine a range of project's potential benefit cost ratio. A cost benefit analysis provides a common basis that can be used to compare projects. Those projects with a higher B/C ratio range were given a higher priority.	High	Project's annual benefits are expected to exceed the capital cost.	3
		Medium	Project's annual benefits are expected to exceed half of the capital cost.	2
		Low	Project's capital costs are expected to exceed the annual benefits.	1
Regional Support	Stakeholder input was used to determine projects that have been a consistent priority for local agencies and those that local jurisdictions support.	High	Project has strong support of project stakeholders.	3
		Medium	Project has moderate support of project stakeholders.	2
		Low	Project has little support of project stakeholders.	1

Table 13: Secondary Prioritization Rubric – Geographic Projects

SCALE	POINTS	SAFETY		MOBILITY		ACCOUNTABILITY		REGIONAL SUPPORT
		Consider the anticipated safety improvements of the proposed project.		Consider the anticipated mobility improvements of the proposed projects.		Consider how the proposed project will perform against established goals.		Consider community support for proposed project.
		No. of Crashes	Evacuation Route	RITIS TTI	AADT	Truck AADT	B/C Ratio	Stakeholder Input
High	3	300+	> 66%	> 2.0	40,000+	6,000+	> 15	Project has strong support of project stakeholders.
Medium	2	151 - 300	33% - 66%	1.5 - 2.0	20,000 - 40,000	3,500 - 6,000	5 – 15	Project has moderate support of project stakeholders.
Low	1	0 - 150	33% <	1.5 <	0 - 20,000	0 - 3,500	5 <	Project has little support of project stakeholders.

PROJECT RANKING

Each of the proposed ITS projects were scored based on the established evaluation criteria. The scores were then translated into a priority ranking, with higher scoring projects receiving a higher priority rank. The tables below illustrate the final project ranking. Appendix C provides the detailed scoring for each of the projects and any assumptions.

Table 14: Project Ranking

Rank	Project
1	CCTV Camera Upgrade
2	CCTV Cameras - Phase 1
3	I-10 Trailblazers
4	ATMS Upgrades
5	Cabinet Upgrades
6	ATSPM Dashboard/Performance Monitoring
7	System Detectors
8	Smart Work Zones
9	Transit Signal Priority
10	FYA Upgrades
11	Traffic Signal Management Plan
12	CCTV Cameras - Phase 2
13	Travel Time Reliability System - Phase 1
14	Adaptive Traffic Signal Control (US 90)
15	Travel Time Reliability System - Phase 2
16	Adaptive Traffic Signal Control (US 27)
17	Connected Vehicle Infrastructure
18	Managed Field Ethernet Switch Replacement
19	Communications Network – Redundancy Expansion
20	Website Connectivity
21	Bicycle Detection

HIGH LEVEL DEPLOYMENT PLAN

The rankings were used to group the recommended projects into tiered deployment timeframes. The recommended deployment timeframes does not align directly with the prioritization ranking. The final project sequencing was determined by City staff based on funding availability and City priorities. Projects that will be recurring over multiple fiscal years are listed as programmatic and the yearly cost included. Table 15 shows the recommended timeframes for each of the ITS projects along with estimated costs.

Table 15: Project Deployment Timeframes

DEPLOYMENT TIMEFRAME	PROJECT TITLE	ESTIMATED COST
Near-Term (2 to 5-year horizon)	CCTV Camera Upgrade	\$980,000
	CCTV Cameras - Phase 1	\$210,000
	Adaptive Traffic Signal Control (US 90)	\$1,430,000
	Traffic Signal Management Plan	\$50,000
Near Term Subtotal		\$2,670,000
Mid-Term (5 to 10-year horizon)	I-10 Trailblazers	\$3,267,000
	Cabinet Upgrades	\$5,330,000
	Smart Work Zones	\$20,000
	Transit Signal Priority	\$400,000
	CCTV Cameras - Phase 2	\$130,000
	Travel Time Reliability System - Phase 1	\$230,000
	Travel Time Reliability System - Phase 2	\$140,000
Mid-Term Subtotal		\$9,517,000
Long-Term (over 10-year horizon)	Adaptive Traffic Signal Control (US 27)	\$1,120,000
	Connected Vehicle Infrastructure	\$860,000
	Managed Field Ethernet Switch Replacement	\$2,180,000
	Communications Network – Redundancy Expansion	\$7,950,000
	Website Connectivity	\$100,000
Long-Term Subtotal		\$12,210,000
Programmatic Projects (yearly recurrence)	ATMS Upgrades	\$30,000
	ATSPM Dashboard/Performance Monitoring	\$70,000

System Detectors	\$110,000
FYA Upgrades	\$120,000
Bicycle Detection	\$60,000
<i>Programmatic Subtotal</i>	\$390,000

Mid-term and long-term projects could become a higher priority depending on funding or as opportunities for collaboration or efficiencies become available. However, actual deployment scheduling could be affected by the following implementation factors:

- **Project's Dependence on Other ITS Projects:** Project is dependent on other ITS and communications deployments to provide full or partial operations and/or benefit (i.e. the project depends on another project to be deployed first).
- **Proximity to Planned Programmed Roadway ITS Project:** Proposed project may be able to leverage deployment of support infrastructure and expedite schedule or potentially reduce implementation costs.
- **Proximity of Proposed Project to Existing ITS Project:** Project may be able to take advantage of an existing ITS project for communications network connectivity and/or infrastructure to reduce ITS project implementation costs.
- **Funding Opportunities/Availability:** The availability of funding will impact implementation timeframe and actual deployment. Depending on funding levels, a proposed ITS project could be segmented into phases to allow deployment in stages dependent on level of funding.

The City should pursue multiple funding sources for the deployment of the recommended system expansion and enhancement. As a result of the rapidly evolving ITS technologies and their applications to traffic operations and communications, it is recommended that the City continually monitor the recommendations and deployment timeframes proposed as part of this project. Furthermore, the City should closely track the implementation of individual projects to more comprehensively evaluate the overall plan implementation.

STAFFING PLAN

In addition to identifying ITS infrastructure needs, this ITS Master Plan identifies appropriate staffing levels that will allow the City to manage its traffic signal system and ITS network and to support the traveling public more effectively. A few of the projects developed for this plan (e.g., developing a Traffic Signal Management Plan) involve updating processes, which require minimal time and resources to implement. However, most of the recommended projects will require more resources, including increased staffing, in order to implement. Exploring the staffing needs within this ITS Master Plan ensures that there is a realistic consideration of the efforts that are needed to implement it.

The number of traffic signals in the City has steadily increased without a corresponding increase in staff to operate and maintain them. This has created a situation where the City is understaffed for both operations and maintenance of the traffic signal system and ITS network.

Several national sources provide guidance to signal maintaining agencies regarding the recommended staffing levels based on the number of traffic signals needed to be maintained. The Federal Highway Administration (FHWA) developed the *Traffic Signal Operations and Maintenance Staffing Guidelines* in 2009. This report provides a guideline to estimate the staffing and resource needs required to effectively operate and maintain traffic signal systems. According to the report, ineffective operation and maintenance of traffic signals may have safety implications and contributes annually to millions of hours of unnecessary traffic delays, congestion, fuel consumption and air pollution. The guidelines provided below are intended to assist managers and practitioners with prioritizing and evaluating operations and maintenance staffing needs.

Figure 25: Excerpt from FHWA Guidelines for Staffing (2009)

- A staffing level of 75-100 signals per engineer for agencies that operate a minimum of 150 signals will be appropriate to support the Constrained Ideal Traffic System. Smaller agencies will likely require fewer signals per engineer because economies of scale may be difficult to realize.
- A staffing level of 30-40 signals per technician for agencies that operate a minimum of 150 signals will be appropriate to support the Constrained Ideal Traffic System. Smaller agencies will likely require fewer signals per technician because economies of scale may be difficult to realize.

According to industry standards for traffic signal operations and maintenance, approximately 8.75 to 11.5 maintenance staff and 3.5 to 4.5 engineers are required to manage the City's 350 traffic signals. To date, the City has been able to complete necessary operations and maintenance functions for the existing traffic signal network. However, as the traffic signal system and ITS network grow, as well as demands on the transportation network, staffing resources for the City's ITS Program will need to be expanded. Taking into consideration the budgetary constraints of the City, the staffing recommendation is provided below and highlights staffing levels necessary to more effectively operate and maintain the ITS Program.

Table 16: Proposed City Staffing Levels

Staff Position	No. Of Current City Positions	No. Of Proposed City Positions	Additional Staff
STMC Manager	1	1	-
Traffic Signal Timing Engineer	1	2	+1
Traffic Operations Specialist	3	4	+1
Traffic Operations Analyst	0	1	+1
Operator	2	2	-
Network Administrator	1	1	-

Staff Position	No. Of Current City Positions	No. Of Proposed City Positions	Additional Staff
Administrative Assistant	2	2	-
ITS Maintenance Technician	6	8	+2
Senior ITS Maintenance Technician	1	1	-

Deploying the additional ITS infrastructure identified in this Master Plan will exacerbate the existing staffing challenges unless a plan is implemented to identify and account for staffing needs as the ITS Program grows. It is recommended that during project programming for traffic signals, ITS infrastructure, or communications projects consideration is given to the staffing levels required to operate and maintain the new infrastructure in addition to the existing infrastructure.

Conclusion

The City of Tallahassee has a forward-thinking approach to implementing state-of-the-art ITS, connected and automated vehicle, smart city, and internet of things applications based on the commitment to existing communications, traffic signal, and data-centric deployments. This ITS Master Plan will play a pivotal role in allowing the City to position for the adaptation of new technologies, to better maintain system infrastructure, to enhance the reliability of the communication network, and to enhance RTMC operations. This plan also provides solutions to meet needs that are focused on smart deployment of technologies which serve multiple purposes and create efficiencies in the services that Tallahassee provides to its residents and travelers.

This ITS Master Plan evaluated existing conditions, assessed current and future needs, identified recommendations to support the City's established vision, and will facilitate collaboration with partner agencies. The City's vision for this plan is to *"Maximize the transportation system efficiency and performance using innovative technologies and regional collaboration to promote reliable mobility throughout the vibrant capital city region."*

The City of Tallahassee has embraced the challenge of being at the forefront of emerging technologies. As a result of the rapidly evolving ITS technologies and their applications to traffic operations and communications, it is recommended that the City continually monitor the recommendations and deployment strategy included in this Master Plan. At a minimum the City should consider a thorough re-assessment of their vision, strategies, and application of technologies every five years. Furthermore, on an annual basis, the City should closely track the implementation of individual projects to more comprehensively evaluate the overall Plan implementation and continuity with new developments.

Appendix A

Stakeholder Meeting Materials



Meeting Notes

To: Wayne Bryan
From: Jill Capelli, PE
Kimley-Horn and Associates, Inc.
Meeting Date: May 9, 2018
Subject: ITS Master Plan Stakeholder Meeting

Meeting Participants

See attached sign-in sheet for meeting participants and contact information.

Meeting Summary

A power point presentation was provided by Kimley-Horn. The power point covered six main topics: Project Scope and Schedule; Existing Inventory; Operational Scenarios; Needs Discussion; Visioning; Next Steps. A copy of the power point is provided as an attachment. Additional discussion on the six main topics are provided below.

Project Scope and Schedule

- J. Capelli provided a summary of the project needs and goals.
- A tentative schedule was presented and reviewed with the team. J. Capelli provided a summary of the tasks to be completed as part of this project as well as the potential timeframes for deliverable submission.

Existing Inventory

E. Ekwere summarized the existing inventory that was previously collected from the Traffic Signal Operations group. A request was made for any additional data that would be relevant to the project. The information gathered during the meeting is listed below:

- ITS Devices: 1 Road Weather Information System (RWIS) on I-10; 80 BlueTOADs; cell modems have been deployed strictly for traffic signals not in school zones; regarding preemption, Opticom is currently deploying throughout the City (35 intersections are complete and all fire trucks have been retrofitted with devices); speed feedback signs, located on SR 20 and county roads, are currently gathering no data but effectiveness in speed reduction is a wishlist item; 22 intersections of Signal Phasing and Timing (SPAT)/connected vehicle/Dedicated Short Range Communications (DSRC); every school zone has flashers, a

- radar unit, and cell modem linked to the TMC; inventory includes RRFBs but there is a desire for smart RRFBs to capture pedestrian counts; bike counters installed along Pensacola and Madison (west of MLK)
- Management: The Tallahassee TMC has both a Freeway Management and Arterial Management System; manages from MM 192 to MM 210; in 2020 the FMS will operate 24/7 and extend to MM 240; current hours of operation: 5am – 9pm Mondays through Friday
- FDOT District 2 Project: W. Bryan provided a summary of the upcoming District 2 project that will expand the FMS to the east up to the District Line. The City of Tallahassee will operate the D3 coverage area. Once this project is complete in 2020, the RTMC will begin 24/7 operations.
- Center to Center Communications: R. Allen provided a summary of the Center to Center Communications.
- Transit: StarMetro has arrival and departure boards; AVL on all existing fleet (73 buses)
- Additional Stakeholders:
 - School Board: it was requested that outreach to the school board occur regarding technology deployed within school zones
 - Judy Donahue – midtown parking
 - Matt Inman – FSU; reach out regarding parking technology on campus
 - Artie White – City of Tallahassee Planning
 - Sheree Bryant – Leon County Planning
 - Ryan Guthrie

Action Item: A transit specific discussion should be had, currently updating their TDP (include Transit IT)

Operational Scenarios

N. Smusz-Mengelkoch introduced scenarios specific to Tallahassee to facilitate discussion on future needs of the stakeholders. Key points from this discussion are described below:

- Incident Management: topics discussed included freeway closure due to ice, arterial crashes and work zones
 - Stakeholders agreed that the lines of communication need to remain open in these situations
 - It was also suggested that the incident debrief include lessons learned
 - Diversion routes have been identified but getting information to motorists is difficult
- Event Management: FSU football games, FAMU homecoming
 - Consistency with the event management plan is key; ensure that everyone involved knows the plan
 - The plans change annually and there should be better coordination with traffic operations on the event management plans

- Discussion on the TMC, transit, parking, bicycle, and pedestrian scenarios were tabled due to time.

Needs Discussion

- W. Bryan provided a breakdown of the projects funded under the Capital Improvement. He also presented a wishlist of future projects, including but not limited to:
 - Connected vehicles: The City is currently part of the SPAT challenge. 22 intersections are included and primed for connected vehicles with DSRC radios.
 - Transit Signal Priority: Monroe Street corridor would be a prime location for TSP.
 - Trailblazers: permanent wayfinding DMS to be used as part of diversion routes in the future.
- Preliminary transit needs were identified related to the Seminole Express. There are thoughts to making the Seminole Express an Automated Vehicle Transit Line. The first step is the replacement of the vehicles with all electric vehicles first.

Visioning

N. Smusz-Mengelkoch presented the vision statement for the City of Tallahassee as well as other key terms to generate dialogue on the potential vision for the ITS Master Plan. Key discussion points are highlighted below:

- J. Hollingsworth noted that the City has a lot of data but it is typically not in a format that can easily be shared with others. Which presents the question: how do we use resources to get to this point (keywords: data sharing/dissemination, data dashboard is on the wishlist)
- Developing an ITS working group would be beneficial that meets twice a year (keywords: collaboration)
- R. Allen suggested to keep track of not only how well the system is running, but what the benefit of having this system is. Suggested performance measures included: safety, mobility, benefit/cost, incident management, non-recurring congestion. The needs for data sharing and data dashboards were identified (keywords: streamline, effective, efficient)
- Evacuation route along 319

Next Steps

- Follow up on any outstanding information requests
- Finalize existing conditions summary technical memorandum
- Assess operational needs based on stakeholder input

Action Items

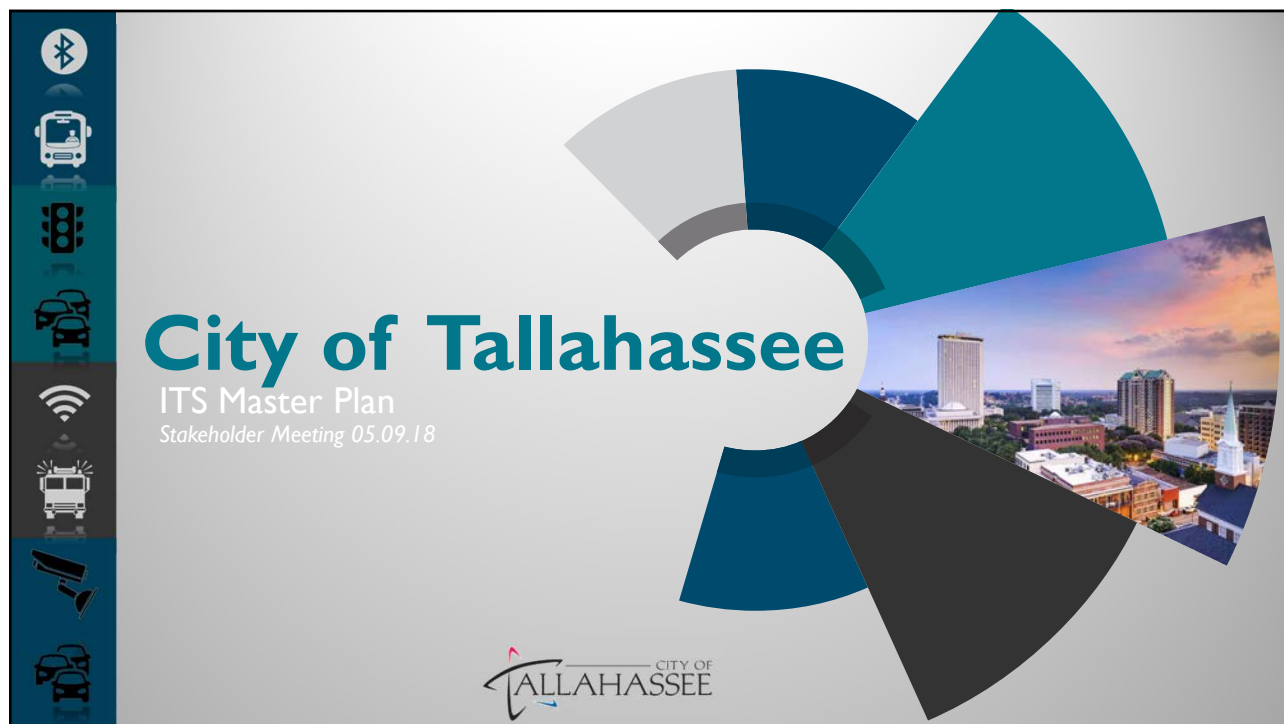
The action items identified during the meeting are summarized in the table below.

Action Item	Responsible Party	Status
Reach out to additional stakeholders	Kimley-Horn	Pending
Set a follow-up meeting with Transit IT	Kimley-Horn	Pending
Develop draft of existing conditions technical memorandum	Kimley-Horn	Ongoing
Provide Wish List Items to Kimley-Horn	City of Tallahassee	Complete

SIGN-IN SHEET

Description:	ITS Master Plan Stakeholder Meeting
Date & Time:	May 9, 2018 1:00PM
Location:	Tallahassee RTMC

Name	Agency/Department	Phone	Email
Jill Capelli	Kimley-Horn	954-535-5107	Jill.Capelli@kimley-horn.com
Natalie Smusz-Mengelkoch	Kimley-Horn	404-445-1902	Natalie.Mengelkoch@kimley-horn.com
Ekaete Ekwere	Kimley-Horn	404-998-8668	Ekaete.Ekwere@kimley-horn.com
Wayne Bryan	City of Tallahassee	850-891-2080	Wayne.Bryan@talgov.com
BILL ABLE	CITY OF TALL.	850-891-7074	WILLIAM.ABLE@TALGOV.COM
Greg Slog	CRTPA	850-991-4624	Greg.Slog@CRTPA.ORG
JOHN MCFADDEN	COT	850-891-2080	JOHN.MCFADDEN@TALGOV.COM
Josh Hollingsworth	HNTB	(850) 766-4394	joh.hollingsworth@hntb.com
ANDREA ROSSER	COT - STARMETRO	850-891-5196	Andrea.rosser@talgov.com
Allen Secreast	COT - Traffic Eng.	(850) 891-8273	allen.secreast@talgov.com
Charles Lee	LEON COUNTY PLD	(850) 606-1546	WLC@LEONCOUNTYFL.GOV.
Tony PARK	Leon County PW	850-606-1537	parkt@leoncountypw.com
Russell Allen	FDOT	850-410-5626	russell.allen@dot.state.fl.us



// Why Are We Here? _____

The goal of this plan is to develop a comprehensive roadmap for planning, implementation, operation, and maintenance of ITS and ITS communications assets. It will enable the City of Tallahassee to evolve the current system to one that will meet the mobility, safety, and quality of life needs of the City.

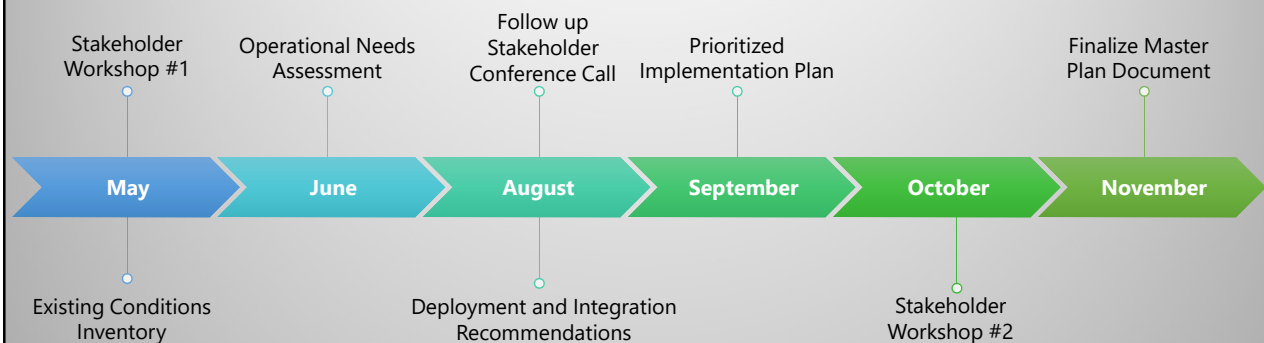


// Today's Goal

- Project Scope and Schedule
- Existing Inventory
- Operational Scenarios / Needs Discussion
- Visioning



// Tentative Schedule



// Existing Conditions

▪ Traffic Infrastructure

- Traffic Signals: 357
- System detectors: ~ 400
- CCTV Cameras:
 - 97 City
 - 28 FMS
- Dynamic Message Signs: 9
- City Bluetooth Devices: 80
- FMS MVDS: 36
- City UPS: 98
- FMS UPS: 19



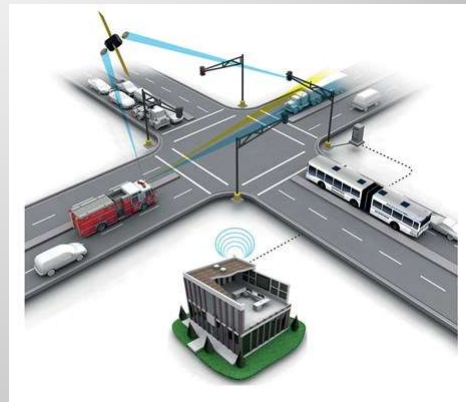
// Existing Conditions

▪ Communications Infrastructure

- ~190 miles of fiber
- 24 cell modems on a Verizon VPN tunnel
- Center-to-center communications
 - Chipley TMC
 - FDOT Central Office

▪ Transit

- Transit Signal Priority
 - Corridors
 - Routes



// Capital Improvement Program

Project Name	Five Year Total	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Camera Replacement	\$ 300,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -
Intersection Detection System	\$ 220,000	\$ 44,000	\$ 44,000	\$ 44,000	\$ 44,000	\$ 44,000
Minor Intersection Safety Mods	\$ 1,125,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000
Sustainable Traffic Signal Pil	\$ 150,000	\$ -	\$ -	\$ -	\$ 150,000	\$ -
TATMS Enhancements	\$ 1,600,000	\$ 300,000	\$ 325,000	\$ 325,000	\$ 325,000	\$ 325,000
Traffic A/R Master	\$ 5,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Traffic Management Systems Improvements	\$ 3,077,000	\$ 615,000	\$ 615,500	\$ 615,500	\$ 615,500	\$ 615,500
Traffic Monitoring Travel Time	\$ 308,000	\$ 200,000	\$ 27,000	\$ 27,000	\$ 27,000	\$ 27,000
Traffic Preemption Equipment	\$ 2,701,277	\$ 2,701,277	\$ -	\$ -	\$ -	\$ -
Traffic Preemption Equipment	\$ 295,600	\$ 295,600	\$ -	\$ -	\$ -	\$ -
Traffic Signal Refurbishment	\$ 1,250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
Turning Movement Count Program	\$ 600,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ -
UPS Upgrade	\$ 350,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -

// Vision

Tallahassee, Florida, a city that remembers its past while focusing on the future – a vibrant capital city: fostering a strong sense of community, cherishing our beautiful natural environment, and ensuring economic opportunities for all our citizens.

safe, efficient, and reliable transportation network

strategically preparing for the future in a fiscally responsible manner

maximize the existing transportation system

innovative technologies and systems, interdepartmental coordination, and regional initiatives



// Operational Scenarios / Needs Discussion



// Operational Scenarios / Needs Discussion

- Incident Management
 - Freeway and Arterial
 - closures due to ice
 - crashes
 - work zone



Source: USA Today affiliate. Tallahassee I-10 closure during winter storm.

- Event Management
 - Florida State University
 - City of Tallahassee



// Operational Scenarios / Needs Discussion

- Tallahassee Regional Transportation Management Center (TRTMC)
 - Hours of Operation
 - Center-to-Center Connections
 - Video Sharing
 - Data Sharing
 - Performance Measures
 - Asset Management

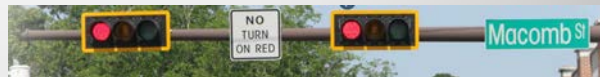


// Operational Scenarios / Needs Discussion

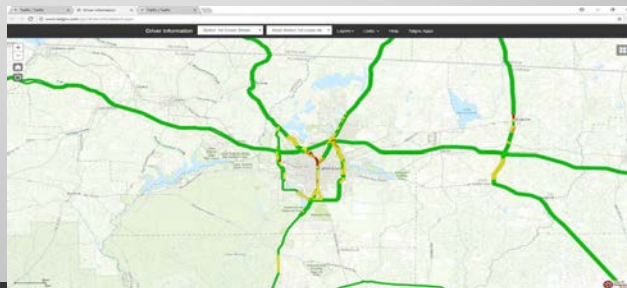
- Traffic Signal Management



- Management and Operations
- Maintenance



- Traveler Information
- Cameras



// Operational Scenarios / Needs Discussion



- Transit
 - Transit Signal Priority
- Parking
- Bicycle / Pedestrian



// What does the future hold?

- Connected Vehicles
- Advanced monitoring/management capabilities
- Transit Signal Priority
- Trailblazers





Stakeholders



Next Steps

- Follow up on any outstanding information requests
- Finalize existing conditions summary
- Assess operational needs based on today's input



// Questions?

Wayne Bryan

City of Tallahassee

Wayne.Bryan@talgov.com

Jill Capelli

Kimley-Horn

Jill.Capelli@Kimley-horn.com

Natalie Smusz-Mengelkoch

Kimley-Horn

Natalie.Mengelkoch@kimley-horn.com



Appendix B

Project Cost Estimates

Appendix B - Unit Costs

Project ID	FDOT Pay Item (If applicable)	Description	Unit Price	Unit of Measure	Notes
TRAFF-01 TRAFF-02	0680 1112	System Control Equipment, Adaptive Signal Control System - NEMA, Furnish & Install	\$ 37,800.00	EA	Cabinet Equipment
	0680 1113	System Control Equipment, Adaptive Signal Control System - NEMA, Furnish & Install	\$ 8,100.00	EA	Above Ground Equipment
TRAFF-03	0660 5 13	Vehicle Detection System- Wireless Magnetometer, Furnish & Install	\$ 1,104.95	EA	In Road Equipment
	0660 5 51	Vehicle Detection System- Wireless Magnetometer, Furnish & Install	\$ 980.85	EA	Cabinet Equipment
TRAFF-04	0641 3163	Concrete CCTV Pole, Furnish & Install, with Lowering Device	\$ 22,510.37	EA	This cost is for a 63 foot pole with lowering device.
TRAFF-05	0682 1113	ITS CCTV Camera, Furnish & Install, Dome Enclosed Pressurized	\$ 5,466.82	EA	Pan, Tilt, Zoom (PTZ), Internet Protocol, High Definition
TRAFF-06		Trailer Mounted Portable CCTV Camera Assembly	\$ 7,438.37		Average of four projects https://www.itscosts.its.dot.gov/ITS/benecost.nsf/0/2CADC1F0755DF9628525814D00566292?OpenDocument&Query=Home https://www.itscosts.its.dot.gov/ITS/benecost.nsf/0/50B6323A1928CFBA8525814D00559040?OpenDocument&Query=Home https://www.itscosts.its.dot.gov/ITS/benecost.nsf/0/444B9793EF1BCBD78525814D0054ABB9?OpenDocument&Query=Home https://www.itscosts.its.dot.gov/ITS/benecost.nsf/0/CEAAEE930263E3A88525814D0053B84B?OpenDocument&Query=Home
TRAFF-07	0650 1 60	Vehicular Traffic Signal, Remove, Poles to Remain	\$ 100.68	EA	
	0650 1 15	Vehicular Traffic Signal, Furnish & Install - Aluminum, 3 Section 2-4 ways	\$ 1,487.95	EA	
	0650 1 17	Vehicular Traffic Signal, Furnish & Install - Aluminum, 4 Section, 2-4 ways	\$ 3,430.00	EA	
	0650 1 19	Vehicular Traffic Signal, Furnish & Install - Aluminum, 5 Section-cluster, 1 way	\$ 1,594.07	EA	
TRAFF-08		Bluetooth readers equipped with GPS and cellular communications	\$ 5,000.00	EA	https://www.itsbenefits.its.dot.gov/ITS/benecost.nsf/0/E6936952DD735F8385257D9A006E2792?OpenDocument&Query=Home
TRAFF-09		Bluetooth travel time detection	\$ 8,000.00	EA	https://www.itsbenefits.its.dot.gov/ITS/benecost.nsf/0/77D2A8A6E739E12585257D7300654F00?OpenDocument&Query=Home
TRAFF-10	0676 2143	ITS Cabinet, Furnish & Install, Base, 334	\$ 12,000.00	EA	New cabinets will be Advanced Traffic Controller (ATC) high density cabinets with additional space for ITS devices.
	0676 2600	ITS Cabinet - Removal	\$ 247.03	EA	
TRAFF-11	0684 1 1	Managed Field Ethernet Switch, Furnish & Install	\$ 3,523.39	EA	
TRAFF-12		Equipment Cost	\$ 7,450.00	EA	Source: https://www.itscosts.its.dot.gov/ITS/benecost.nsf/SummID/SC2014-00325?OpenDocument&Query=Home
		Installation Cost	\$ 3,550.00	EA	
		Planning and Design Cost	\$ 6,650.00	EA	
		Average Total Cost	\$ 17,650.00	EA	
TRAFF-13	0682 1600	ITS CCTV Camera, Remove and Disposal	\$ 350.05	EA	
	0682 1113	ITS CCTV Camera, Furnish & Install, Dome Enclosed Pressurized	\$ 5,466.82	EA	Pan, Tilt, Zoom (PTZ), Internet Protocol, High Definition
TRANS-01	0663 1121	Signal Priority and Preemption System, Furnish & Install, GPS	\$ 6,049.78	EA	Cabinet Electronics
	0663 1122	Signal Priority and Preemption System, Furnish & Install, GPS, Detector	\$ 5,291.77	EA	
TRAV-02	0700 8135	Front Access Dynamic Message Sign, Furnish & Install, Full Color, 51-100 ft²	\$ 67,348.47	EA	Furnish & Install with Uninterruptible Power Supply (UPS)
	0700 10122	Dynamic Message Sign Support Structure, Cantilever, 21-30 FT	\$ 52,500.00	EA	
	0700 7111	Dynamic Message Sign- Embedded, Furnish & Install, Monochrome, 12-20 ft²	\$ 21,397.00	EA	
	0700 1 12	Single Post Sign, Furnish & Install Ground Mount, 12-20 ft²	\$ 1,160.74	EA	
BIKE-01		Bicycle Detection	\$ 2,680.00		Source: http://pedbikesafe.org/bikesafe/countermeasures_detail.cfm?CM_NUM=36
			\$ 7,730.00	per lane	https://activelivingresearch.org/sites/activelivingresearch.org/files/Dill_Bicycle_Facility_Cost_June2013.pdf
COMM-01	0633 1123	Fiber Optic Cable, Furnish & Install, Underground, 49-96	\$ 2.61	LF	
	0633 1124	Fiber Optic Cable, Furnish & Install, Underground, 97-144	\$ 2.82	LF	
	0630 2 11	Conduit, Furnish & Install, Open Trench	\$ 6.50	LF	
	0630 2 12	Conduit, Furnish & Install, Directional Bore	\$ 18.89	LF	
	0633 3 11	Fiber Optic Connection Hardware, Splice Enclosure	\$ 802.79	EA	
	0633 3 15	Fiber Optic Connection Hardware, Patch Panel, Preterminated	\$ 1,363.33	EA	

Source
Historical Cost and Other Information - Current 12 Month Moving Average (PDF attached)
<https://www.fdot.gov/programmanagement/estimates/historicalcostinformation/historicalcost.shtm>

Appendix B - Estimated Project Costs

Project ID	Project Name	Capital					
		Component 1		Quantity	Component 2		Quantity
TRAFF-01	Adaptive Traffic Signal Control (US 27)	Cabinet Equip	\$ 37,800.00	14	Above Ground Equip	\$ 8,100.00	14
TRAFF-02	Adaptive Traffic Signal Control (US 90)	Cabinet Equip	\$ 37,800.00	18	Above Ground Equip	\$ 8,100.00	18
TRAFF-03	System Detectors	In Road Equip	\$ 1,104.95	30	Cabinet Equip	\$ 980.85	30
TRAFF-04	CCTV Cameras - Phase 1	CCTV Camera	\$ 5,466.82	22			
TRAFF-05	CCTV Cameras - Phase 2	CCTV Camera	\$ 5,466.82	13			
TRAFF-06	Smart Work Zones	Trailer Mounted Cam	\$ 7,438.37	1			
TRAFF-07	FYA Upgrades Pilot	5 Section Signal Head	\$ 1,594.07	40	Signal Removal	\$ 100.68	40
TRAFF-08	Travel Time Reliability System - Phase 1	Bluetooth Reader	\$ 8,000.00	16			
TRAFF-09	Travel Time Reliability System - Phase 2	Bluetooth Reader	\$ 8,000.00	10			
TRAFF-10	Cabinet Upgrades	Cabinet	\$ 12,000.00	357	Cabinet Removal	\$ 247.03	357
TRAFF-11	Managed Field Ethernet Switch Replacement	Ethernet Switch	\$ 3,523.39	357			
TRAFF-12	Connected Vehicle Infrastructure	DSRC Deployment	\$ 17,650.00	28			
TRAFF-13	CCTV Camera Upgrade	CCTV Camera	\$ 5,466.82	97	Camera Removal	\$ 350.05	97
TRANS-01	Transit Signal Priority	TSP Cabinet Electronics	\$ 6,049.78	20	Detector	\$ 5,291.77	20
TRAV-01	Website Connectivity	Website Connectivity	\$ 100,000.00	1			
TRAV-02	I-10 Trailblazers	Front Access DMS	\$ 67,348.47	5	Support Structure	\$ 52,500.00	5
PERF-01	ATSPM Dashboard/Performance Monitoring	Dashboard Subscription	\$ 70,000.00	1			
BIKE-01	Bicycle Detection	Bicycle Detection	\$ 7,730.00	4			
TMC-01	Traffic Signal Management Plan	Traffic Signal Man. Plan	\$50,000	1			
COMM-01	Network Architecture	Fiber, 97-144 count	\$ 2.82	210,936	Conduit Install	\$ 18.89	210,936

Appendix B - Estimated Project Costs

Project ID	Project Name							Subtotal
		Component 3		Quantity	Component 4		Quantity	
TRAFF-01	Adaptive Traffic Signal Control (US 27)							\$ 642,600.00
TRAFF-02	Adaptive Traffic Signal Control (US 90)							\$ 826,200.00
TRAFF-03	System Detectors							\$ 62,574.00
TRAFF-04	CCTV Cameras - Phase 1							\$ 120,270.04
TRAFF-05	CCTV Cameras - Phase 2							\$ 71,068.66
TRAFF-06	Smart Work Zones							\$ 7,438.37
TRAFF-07	FYA Upgrades Pilot							\$ 67,790.00
TRAFF-08	Travel Time Reliability System - Phase 1							\$ 128,000.00
TRAFF-09	Travel Time Reliability System - Phase 2							\$ 80,000.00
TRAFF-10	Cabinet Upgrades							\$ 4,372,189.71
TRAFF-11	Managed Field Ethernet Switch Replacement							\$ 1,257,850.23
TRAFF-12	Connected Vehicle Infrastructure							\$ 494,200.00
TRAFF-13	CCTV Camera Upgrade							\$ 564,236.39
TRANS-01	Transit Signal Priority							\$ 226,831.00
TRAV-01	Website Connectivity							\$ 100,000.00
TRAV-02	I-10 Trailblazers	Embedded DMS	\$ 21,397.00	11	Single Post Sign	\$ 1,160.74	11	\$ 847,377.49
PERF-01	ATSPM Dashboard/Performance Monitoring							\$ 70,000.00
BIKE-01	Bicycle Detection							\$ 30,920.00
TMC-01	Traffic Signal Management Plan							\$ 50,000.00
COMM-01	Network Architecture	Splice Enclosure	\$ 802.79	5	Patch Panel	\$ 1,363.33	5	\$ 4,590,251.16

Appendix B - Estimated Project Costs

Project ID	Project Name	Design (18%)	Construction* (20%)	Operations (10%)	Maintenance (10%)	Contingency (15%)	Rounded Total
		18%	20%	10%	10%	15%	
TRAFF-01	Adaptive Traffic Signal Control (US 27)	\$ 115,668.00	\$ 128,520.00	\$ 64,260.00	\$ 64,260.00	\$ 96,390.00	\$ 1,120,000
TRAFF-02	Adaptive Traffic Signal Control (US 90)	\$ 148,716.00	\$ 165,240.00	\$ 82,620.00	\$ 82,620.00	\$ 123,930.00	\$ 1,430,000
TRAFF-03	System Detectors	\$ 11,263.32	\$ 12,514.80	\$ 6,257.40	\$ 6,257.40	\$ 9,386.10	\$ 110,000
TRAFF-04	CCTV Cameras - Phase 1	\$ 21,648.61	\$ 24,054.01	\$ 12,027.00	\$ 12,027.00	\$ 18,040.51	\$ 210,000
TRAFF-05	CCTV Cameras - Phase 2	\$ 12,792.36	\$ 14,213.73	\$ 7,106.87	\$ 7,106.87	\$ 10,660.30	\$ 130,000
TRAFF-06	Smart Work Zones	\$ 1,338.91	\$ 1,487.67	\$ 743.84	\$ 743.84	\$ 1,115.75	\$ 20,000
TRAFF-07	FYA Upgrades Pilot	\$ 12,202.20	\$ 13,558.00	\$ 6,779.00	\$ 6,779.00	\$ 10,168.50	\$ 120,000
TRAFF-08	Travel Time Reliability System - Phase 1	\$ 23,040.00	\$ 25,600.00	\$ 12,800.00	\$ 12,800.00	\$ 19,200.00	\$ 230,000
TRAFF-09	Travel Time Reliability System - Phase 2	\$ 14,400.00	\$ 16,000.00	\$ 8,000.00	\$ 8,000.00	\$ 12,000.00	\$ 140,000
TRAFF-10	Cabinet Upgrades	\$ 786,994.15	\$ 874,437.94	\$ 437,218.97	\$ 437,218.97	\$ 655,828.46	\$ 7,570,000
TRAFF-11	Managed Field Ethernet Switch Replacement	\$ 226,413.04	\$ 251,570.05	\$ 125,785.02	\$ 125,785.02	\$ 188,677.53	\$ 2,180,000
TRAFF-12	Connected Vehicle Infrastructure	\$ 88,956.00	\$ 98,840.00	\$ 49,420.00	\$ 49,420.00	\$ 74,130.00	\$ 860,000
TRAFF-13	CCTV Camera Upgrade	\$ 101,562.55	\$ 112,847.28	\$ 56,423.64	\$ 56,423.64	\$ 84,635.46	\$ 980,000
TRANS-01	Transit Signal Priority	\$ 40,829.58	\$ 45,366.20	\$ 22,683.10	\$ 22,683.10	\$ 34,024.65	\$ 400,000
TRAV-01	Website Connectivity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
TRAV-02	I-10 Trailblazers	\$ 152,527.95	\$ 169,475.50	\$ 84,737.75	\$ 84,737.75	\$ 127,106.62	\$ 1,470,000
PERF-01	ATSPM Dashboard/Performance Monitoring	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 70,000
BIKE-01	Bicycle Detection	\$ 5,565.60	\$ 6,184.00	\$ 3,092.00	\$ 3,092.00	\$ 4,638.00	\$ 60,000
TMC-01	Traffic Signal Management Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000
COMM-01	Network Architecture	\$ 826,245.21	\$ 918,050.23	\$ 459,025.12	\$ 459,025.12	\$ 688,537.67	\$ 7,950,000

*Some line items include both furnish and install costs. Construction percentage included in order to be conservative.

Appendix B - Estimated Project Costs

Project ID	Project Name	Assumptions
TRAFF-01	Adaptive Traffic Signal Control (US 27)	
TRAFF-02	Adaptive Traffic Signal Control (US 90)	
TRAFF-03	System Detectors	assumed wireless magnetometer detection
TRAFF-04	CCTV Cameras - Phase 1	
TRAFF-05	CCTV Cameras - Phase 2	
TRAFF-06	Smart Work Zones	
TRAFF-07	FYA Upgrades Pilot	for pilot project - assumed 20 locations replacing 5 section head for two approaches
TRAFF-08	Travel Time Reliability System - Phase 1	
TRAFF-09	Travel Time Reliability System - Phase 2	
TRAFF-10	Cabinet Upgrades	assumed deployment at all signalized intersections
TRAFF-11	Managed Field Ethernet Switch Replacement	assumed deployment at all signalized intersections
TRAFF-12	Connected Vehicle Infrastructure	
TRAFF-13	CCTV Camera Upgrade	
TRANS-01	Transit Signal Priority	current route chosen for TSP passes through 20 intersections
TRAV-01	Website Connectivity	cost could range from \$20,000 to \$500,000 depending on features and functionality
TRAV-02	I-10 Trailblazers	quantities based on preliminary locations identified in preliminary planning
PERF-01	ATSPM Dashboard/Performance Monitoring	
BIKE-01	Bicycle Detection	
TMC-01	Traffic Signal Management Plan	cost estimated based on similar documents previously completed
COMM-01	Network Architecture	40 miles of fiber being proposed; does not include cost of hubs

Current 12 Month Moving Average

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0102 1	260	\$460.67	\$40,024,029.67	86,883.000	DA	N	MAINTENANCE OF TRAFFIC
0102 2 1	57	\$183,569.90	\$11,197,763.95	61.000	LS	N	SPECIAL DETOUR 1
0102 2 2	30	\$119,101.09	\$3,692,133.91	31.000	LS	N	SPECIAL DETOUR 2
0102 2 3	19	\$83,651.50	\$1,589,378.56	19.000	LS	N	SPECIAL DETOUR 3
0102 2 4	18	\$125,381.65	\$2,256,869.68	18.000	LS	N	SPECIAL DETOUR 4
0102 2 5	13	\$125,309.78	\$1,629,027.12	13.000	LS	N	SPECIAL DETOUR 5
0102 2 6	11	\$262,375.42	\$2,886,129.57	11.000	LS	N	SPECIAL DETOUR 6
0102 2 7	7	\$183,873.69	\$1,287,115.84	7.000	LS	N	SPECIAL DETOUR 7
0102 2 8	7	\$94,423.10	\$660,961.68	7.000	LS	N	SPECIAL DETOUR 8
0102 2 9	5	\$55,228.54	\$276,142.72	5.000	LS	N	SPECIAL DETOUR 9
0102 2 10	4	\$25,635.57	\$102,542.26	4.000	LS	N	SPECIAL DETOUR 10
0102 3	34	\$20.00	\$583,687.17	29,181.100	CY	N	COMMERCIAL MATL FOR TEMP DRIVEWAY MAINT
0102 14	123	\$51.91	\$2,050,067.05	39,489.000	HR	N	TRAFFIC CONTROL OFFICER
0102 60	247	\$.25	\$1,259,773.99	5,120,921.000	ED	N	WORK ZONE SIGN
0102 61	28	\$6.49	\$30,646.20	4,720.000	EA	N	BUSINESS SIGN
0102 62	6	\$.44	\$38,773.70	87,232.000	ED	N	BARRIER MOUNTED WORK ZONE SIGN
0102 71 13	40	\$31.82	\$3,680,747.10	115,679.000	LF	N	TEMPORARY BARRIER, F&I, LOW PROFILE, CONC
0102 71 15	49	\$15.43	\$2,589,404.68	167,815.000	LF	N	TEMPORARY BARRIER, F&I, ANCHORED
0102 71 16	36	\$16.00	\$1,424,347.45	89,047.000	LF	N	TEMPORARY BARRIER, F&I, FREE STAND
0102 71 23	22	\$8.50	\$1,146,593.60	134,935.000	LF	N	TEMPORARY BARRIER, REL, LOW PROFILE CONC
0102 71 25	27	\$6.63	\$1,414,456.88	213,275.000	LF	N	TEMPORARY BARRIER, REL, ANCHORED
0102 71 26	19	\$7.76	\$445,006.50	57,365.000	LF	N	TEMPORARY BARRIER, REL, FREE STAND
0102 73	3	\$9.80	\$21,744.60	2,219.000	LF	N	TEMPORARY GUARDRAIL
0102 74 1	246	\$.12	\$1,988,160.86	16,372,063.000	ED	N	CHANNEL DEVICE-TYPS I, II, DI, VP, DRUM, LC
0102 74 2	158	\$.31	\$261,214.54	834,438.000	ED	N	CHANNELIZING DEVICE, TYPE III, 6'
0102 74 7	146	\$4.44	\$1,518,663.36	342,262.000	LF	N	CHANNELIZING DEVICE- PED LCD
0102 75 1	8	\$15.55	\$445,157.68	28,629.000	LF	N	TEMPORARY SEPARATOR, F&I REMOVE
0102 75 3	1	\$15.60	\$34,616.40	2,219.000	LF	N	TEMPORARY SEPARATOR, INSTALL
0102 75 4	1	\$5.20	\$11,252.80	2,164.000	LF	N	TEMPORARY SEPARATOR, RELOCATE
0102 75 5	1	\$2.10	\$4,659.90	2,219.000	LF	N	TEMPORARY SEPARATOR, REMOVE
0102 76	190	\$6.19	\$722,741.29	116,735.000	ED	N	ARROW BOARD /ADVANCE WARNING ARROW PANEL
0102 78	138	\$3.23	\$1,290,993.46	399,400.000	EA	N	TEMPORARY RETROREFLECTIVE PAVT MARKER
0102 89 1	63	\$856.16	\$701,197.42	819.000	LO	N	TEMPORARY CRASH CUSHION, RED OPT
0102 94 1	1	\$15.60	\$25,412.40	1,629.000	LF	N	TEMP GLARE SCREEN, F&I, WALL MAT-CONC
0102 99	232	\$11.90	\$2,763,990.79	232,288.000	ED	N	PORTABLE CHANGEABLE MESSAGE SIGN, TEMP
0102104	104	\$10.85	\$1,291,697.02	119,072.000	ED	N	TEMPORARY SIGNALIZATION AND MAINT, INTER
0102107 1	105	\$8.11	\$944,000.06	116,401.000	ED	N	TEMP TRAFFIC DETECTION & MAINTEN, INTER
0102120	1	\$.10	\$37.50	375.000	ED	N	TEMP TRAFF SIGNAL- 2LN, 2WAY
0102150 1	48	\$5.46	\$154,186.66	28,264.000	ED	N	PORTABLE REGULATORY, SIGN
0102150 2	48	\$5.80	\$148,815.96	25,636.000	ED	N	RADAR SPEED DISPLAY UNIT

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item		No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0102909		15	\$32.14	\$94,399.95	2,937.000	DA	N	TEMPORARY RAISED RUMBLE STRIPS
0102911	1	10	\$2.37	\$32,412.66	13,657.000	LF	N	PAVT MARKING REMOVABLE TAPE,WH BLK,SKIP
0102911	2	37	\$2.73	\$361,626.28	132,521.000	LF	N	PAVT MARKING REMOVABLE TAPE,WH BLK,SOLID
0102911	3	8	\$7.25	\$22,312.95	3,077.000	SF	N	PAVT MARKING REMOVABLE TAPE,WH BLK,OTHER
0102912	1	1	\$2.49	\$1,566.21	629.000	LF	N	PAVT MARKING REMOVABLE TAPE,YELLOW,SKIP
0102912	2	24	\$2.55	\$157,655.02	61,786.000	LF	N	PAVT MARKING REMOVABLE TAPE,YELLOW,SOLID
0102912	3	1	\$4.50	\$891.00	198.000	SF	N	PAVT MARKING REMOVABLE TAPE,YELLOW,OTHER
0104	1	29	\$3.42	\$477,778.63	139,824.000	SY	N	ARTIFICIAL COVERINGS / ROLL EROSION CNTL
0104	6	1	\$12.30	\$861.00	70.000	LF	N	TEMPORARY SLOPE DRAIN / RUNOFF CONT STR
0104	7	1	\$3,072.00	\$12,288.00	4.000	EA	N	SEDIMENT BASIN / CONTAINMENT SYSTEM
0104	9	5	\$1,936.04	\$135,522.60	70.000	EA	N	SEDIMENT BASIN / CONTAINMENT SY CLEANOUT
0104	10	3	\$1.96	\$4,039,617.22	2,058,360.000	LF	N	SEDIMENT BARRIER
0104	11	76	\$12.08	\$1,140,264.25	94,380.000	LF	N	FLOATING TURBIDITY BARRIER
0104	12	35	\$4.87	\$529,921.00	108,871.000	LF	N	STAKED TURBIDITY BARRIER- NYL REINF PVC
0104	15	49	\$2,626.89	\$512,243.16	195.000	EA	N	SOIL TRACKING PREVENTION DEVICE
0104	18	175	\$104.39	\$969,952.54	9,292.000	EA	N	INLET PROTECTION SYSTEM
0104	19	1	\$2.80	\$14.00	5.000	SY	N	CHEMICAL TREATMENT FOR EROSION CONTROL
0107	1	178	\$11.89	\$2,079,363.86	174,952.780	AC	N	LITTER REMOVAL
0107	2	173	\$20.88	\$2,959,876.94	141,746.550	AC	N	MOWING
0108	1	74	\$10,673.51	\$907,248.76	85.000	LS	N	MONITOR EXISTING STRUCTURES- SETTLE
0108	2	44	\$9,080.04	\$481,241.89	53.000	LS	N	MONITOR EXISTING STRUCTURES- VIBRA
0108	3	2	\$14,982.00	\$29,964.00	2.000	LS	N	MONITOR EXISTING STRUCTURES- GROUND
0110	1	1	\$10,075.04	\$34,194,497.00	3,393.980	AC	N	CLEARING & GRUBBING
0110	2	2	\$20,055.67	\$444,834.86	22.180	AC	N	SELECTIVE CLEARING AND GRUBBING, TREES R
0110	2	3	\$130,000.00	\$19,500.00	.150	AC	N	SELECTIVE CLEARING AND GRUB, PLANT PRES
0110	3	39	\$30.81	\$5,035,348.22	163,430.000	SF	N	REMOVAL OF EXISTING STRUCTURES/BRIDGES
0110	4	10	\$16.43	\$5,901,355.43	359,077.000	SY	N	REMOVAL OF EXIST CONC
0110	6	3	\$2,780.00	\$13,900.00	5.000	EA	N	PLUGGING WATER WELLS, NON-ARTESIAN
0110	7	1	\$232.55	\$128,137.66	551.000	EA	N	MAILBOX, F&I SINGLE
0110	8	1	\$2,200.00	\$11,000.00	5.000	DA	N	UNDERWATER DEBRIS REMOVAL
0110	12	1	\$1,214.05	\$565,745.37	466.000	SY	N	HYDRODEMOLITION, REM OF DECK SURFACE
0110	71	1	\$329.23	\$358,531.25	1,089.000	LF	N	BRIDGE FENDER SYSTEM, REMOVAL & DISPOSAL
0110	73	5	\$121.67	\$257,334.00	2,115.000	LF	N	REMOVE EXISTING BULKHEAD
0110	82	1	\$2,500.00	\$49,750.00	19.900	MB	N	REMOVE & DISPOSE OF STRUCTURAL TIMBER
0120	1	135	\$3.75	\$33,375,278.97	8,888,584.900	CY	N	REGULAR EXCAVATION
0120	2	2	\$15.85	\$1,873,752.50	118,215.500	CY	N	BORROW EXCAVATION, TRUCK MEASURE
0120	3	3	\$10.23	\$85,234.00	8,332.000	CY	N	LATERAL DITCH EXCAVATION
0120	4	30	\$7.48	\$5,588,601.82	747,544.900	CY	N	SUBSOIL EXCAVATION
0120	5	6	\$13.64	\$259,917.00	19,051.400	CY	N	CHANNEL EXCAVATION
0120	6	123	\$5.75	\$93,676,898.80	16,293,687.000	CY	N	EMBANKMENT

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0120 71	36	\$37,255.35	\$1,527,469.22	41.000	LS	N	REGULAR EXCAVATION (3-R PROJECTS ONLY)
0120 74	7	\$13.75	\$3,520,819.79	256,116.100	CY	N	SURCHARGE EMBANKMENT
0121 70 5	1	\$195.00	\$19,305.00	99.000	CY	N	FLOWABLE FILL, PAVEMENT REPAIRS
0125 1	7	\$26.93	\$366,648.50	13,613.500	CY	N	EXCAVATION FOR STRUCTURES
0125 3	3	\$51.01	\$42,075.66	824.900	CY	N	SELECT BEDDING MATERIAL
0141 70	7	\$967.25	\$88,019.61	91.000	AS	N	SETTLEMENT PLATE ASSEMBLY
0144 1 1	1	\$102.92	\$35,095.72	341.000	LF	N	DIGITAL INCLINOMETER CASING, VERTICAL
0144 71 2	2	\$810.15	\$8,911.60	11.000	EA	N	PORE-PRESSURE TRANSDUCER- PIEZOMETER,VIB
0144 72	1	\$89.10	\$26,730.00	300.000	LF	N	TUBING FOR PIEZOMETER
0144 74 2	2	\$1,422.32	\$5,689.26	4.000	EA	N	PORE-PRESSURE TRANSDUCER,CNTL/READOUT,VW
0145 1	1	\$5.20	\$27,149.20	5,221.000	SF	N	GEOSYNTHETIC REINFORCED SOIL SLOPE
0145 2	13	\$5.98	\$929,079.51	155,408.000	SY	N	GEOSYNTHETIC REINF FND OVER SOFT SOIL
0145 71	1	\$10.00	\$25,650.00	2,565.000	SY	N	REINFORCEMENT GRID FOR SOIL STABILIZAT
0160 4	125	\$3.93	\$18,255,628.39	4,642,950.000	SY	N	TYPE B STABILIZATION
0173 76	1	\$9.35	\$3,085.50	330.000	LF	N	GROUT PIPE INSTALLATION
0210 1 1	1	\$4.50	\$27,301.50	6,067.000	SY	N	REWORKING LIMEROCK BASE, 6"
0210 1 8	1	\$10.99	\$1,055.04	96.000	SY	N	REWORKING LIMEROCK BASE, 4"
0210 2	2	\$25.98	\$29,790.98	1,146.900	CY	N	LIMEROCK-NEW MATERIAL FOR REWORKING BASE
0285701	74	\$13.09	\$6,994,594.78	534,298.000	SY	N	OPTIONAL BASE,BASE GROUP 01
0285702	8	\$9.45	\$487,433.20	51,578.000	SY	N	OPTIONAL BASE,BASE GROUP 02
0285703	7	\$12.19	\$307,524.51	25,227.000	SY	N	OPTIONAL BASE,BASE GROUP 03
0285704	13	\$9.78	\$3,043,019.70	311,105.000	SY	N	OPTIONAL BASE,BASE GROUP 04
0285705	5	\$12.06	\$2,228,408.70	184,718.000	SY	N	OPTIONAL BASE,BASE GROUP 05
0285706	44	\$14.82	\$5,299,617.69	357,679.000	SY	N	OPTIONAL BASE,BASE GROUP 06
0285707	2	\$22.63	\$226,298.80	9,998.000	SY	N	OPTIONAL BASE,BASE GROUP 07
0285708	6	\$36.23	\$101,340.54	2,797.000	SY	N	OPTIONAL BASE,BASE GROUP 08
0285709	72	\$16.07	\$24,724,487.37	1,538,665.000	SY	N	OPTIONAL BASE,BASE GROUP 09
0285710	20	\$15.91	\$6,166,966.58	387,640.000	SY	N	OPTIONAL BASE,BASE GROUP 10
0285711	31	\$24.20	\$5,761,172.54	238,093.000	SY	N	OPTIONAL BASE,BASE GROUP 11
0285712	9	\$19.63	\$7,251,683.30	369,456.000	SY	N	OPTIONAL BASE,BASE GROUP 12
0285713	5	\$54.06	\$705,448.65	13,049.000	SY	N	OPTIONAL BASE,BASE GROUP 13
0285714	9	\$43.13	\$3,531,523.09	81,883.000	SY	N	OPTIONAL BASE,BASE GROUP 14
0285715	17	\$45.67	\$2,464,034.87	53,958.000	SY	N	OPTIONAL BASE,BASE GROUP 15
0286 1	29	\$24.10	\$870,474.49	36,117.000	SY	N	TURNOUT CONSTRUCT/DRIVEWAY BASE- OPTION
0286 2	9	\$238.35	\$57,989.64	243.300	TN	N	TURNOUT CONSTRUCT-ASPHALT/DRIVEWAY BASE
0327 70 1	49	\$2.43	\$2,361,449.14	971,786.000	SY	N	MILLING EXIST ASPH PAVT, 1" AVG DEPTH
0327 70 2	12	\$2.86	\$845,585.83	295,895.000	SY	N	MILLING EXIST ASPH PAVT,3 1/2" AVG DEPTH
0327 70 3	7	\$3.89	\$375,152.43	96,327.000	SY	N	MILLING EXIST ASPH PAVT,4 1/2" AVG DEPTH
0327 70 4	35	\$2.03	\$2,473,419.49	1,216,583.000	SY	N	MILLING EXIST ASPH PAVT, 3" AVG DEPTH
0327 70 5	35	\$2.60	\$2,452,528.48	944,353.000	SY	N	MILLING EXIST ASPH PAVT, 2" AVG DEPTH

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0327 70 6	110	\$2.21	\$6,597,590.11	2,980,451.000	SY	N	MILLING EXIST ASPH PAVT,1 1/2" AVG DEPTH
0327 70 7	10	\$2.76	\$503,351.24	182,218.000	SY	N	MILLING EXIST ASPH PAVT, 4" AVG DEPTH
0327 70 8	21	\$2.69	\$2,332,287.39	867,508.000	SY	N	MILLING EXIST ASPH PAVT,2 1/2" AVG DEPTH
0327 70 9	4	\$4.87	\$706,079.68	145,109.000	SY	N	MILLING EXIST ASPH PAVT,5 1/4" AVG DEPTH
0327 70 10	5	\$4.51	\$349,552.71	77,434.000	SY	N	MILLING EXIST ASPH PAVT, 5" AVG DEPTH
0327 70 11	30	\$2.04	\$4,202,991.56	2,062,640.000	SY	N	MILLING EXIST ASPH PAVT,2 1/4" AVG DEPTH
0327 70 12	10	\$2.35	\$436,795.59	185,529.000	SY	N	MILLING EXIST ASPH PAVT,1 1/4" AVG DEPTH
0327 70 13	10	\$1.93	\$1,645,094.23	852,979.000	SY	N	MILLING EXIST ASPH PAVT,1 3/4" AVG DEPTH
0327 70 15	21	\$2.18	\$3,327,926.84	1,526,839.000	SY	N	MILLING EXIST ASPH PAVT,2 3/4" AVG DEPTH
0327 70 16	7	\$.95	\$214,242.28	226,411.000	SY	N	MILLING EXIST ASPH PAVT, 1/2" AVG DEPTH
0327 70 17	7	\$2.65	\$1,170,018.03	442,070.000	SY	N	MILLING EXIST ASPH PAVT,3 1/4" AVG DEPTH
0327 70 18	3	\$6.25	\$69,095.45	11,047.000	SY	N	MILLING EXIST ASPH PAVT,5 1/2" AVG DEPTH
0327 70 19	29	\$1.98	\$751,813.43	379,153.000	SY	N	MILLING EXIST ASPH PAVT, 3/4" AVG DEPTH
0327 70 20	9	\$3.01	\$1,393,655.59	463,030.000	SY	N	MILLING EXIST ASPH PAVT,3 3/4" AVG DEPTH
0327 70 21	1	\$1.95	\$161,068.05	82,599.000	SY	N	MILLING EXIST ASPH PAVT, 7" AVG DEPTH
0327 70 22	5	\$4.14	\$448,467.00	108,440.000	SY	N	MILLING EXIST ASPH PAVT,4 1/4" AVG DEPT
0327 70 23	1	\$9.39	\$12,516.87	1,333.000	SY	N	MILLING EXIST ASPH PAVT, 6" AVG DEPTH
0327 70 26	4	\$4.29	\$818,510.57	190,777.000	SY	N	MILLING EXIST ASPH PAVT,4 3/4" AVG DEPTH
0327 70 27	1	\$6.46	\$390,907.52	60,512.000	SY	N	MILLING EXIST ASPH PAVT,5 3/4" AVG DEPTH
0327 70 29	2	\$6.16	\$422,942.75	68,670.000	SY	N	MILLING EXIST ASPH PAVT,6 1/4" AVG DEPTH
0327 70 31	2	\$5.54	\$519,437.80	93,739.000	SY	N	MILLING EXIST ASPH PAVT,7 1/2" AVG DEPTH
0327 70 32	2	\$5.51	\$9,095.95	1,651.000	SY	N	MILLING EXIST ASPH PAVT,8 1/2" AVG DEPTH
0327 70 34	1	\$40.14	\$7,385.76	184.000	SY	N	MILLING EXIST ASPH PAVT,8" AVG DEPTH
0327 70 35	1	\$1.95	\$13,281.45	6,811.000	SY	N	MILLING EXIST ASPH PAVT,8 1/4" AVG DEPTH
0327 70 42	2	\$8.39	\$1,464,287.55	174,439.000	SY	N	MILLING EXIST ASPH PAVT, 7 1/4" AVG DEPT
0334 1 11	9	\$129.58	\$312,588.88	2,412.400	TN	N	SUPERPAVE ASPHALTIC CONC, TRAFFIC A
0334 1 12	45	\$93.76	\$21,757,504.23	232,065.700	TN	N	SUPERPAVE ASPHALTIC CONC, TRAFFIC B
0334 1 13	63	\$98.37	\$34,768,724.19	353,435.700	TN	N	SUPERPAVE ASPHALTIC CONC, TRAFFIC C
0334 1 14	23	\$93.35	\$49,226,514.04	527,338.000	TN	N	SUPERPAVE ASPHALTIC CONC, TRAFFIC D
0334 1 52	29	\$106.22	\$16,100,679.97	151,574.200	TN	N	SUPERPAVE ASPH CONC, TRAF B, PG76-22
0334 1 53	55	\$105.18	\$39,184,564.45	372,540.400	TN	N	SUPERPAVE ASPH CONC, TRAF C, PG76-22
0334 1 54	30	\$107.24	\$50,242,409.71	468,511.200	TN	N	SUPERPAVE ASPH CONC, TRAF D, PG76-22
0334 1 55	2	\$106.37	\$13,889,272.06	130,581.200	TN	N	SUPERPAVE ASPH CONC, TRAF E, PG76-22
0334 1 56	1	\$120.50	\$4,335,120.05	35,976.100	TN	N	SUPERPAVE ASPH CONC, TRAF B, HIGH POLYM
0334 1 57	3	\$129.71	\$908,553.15	7,004.500	TN	N	SUPERPAVE ASPH CONC, TRAF C, HIGH POLYME
0334 1 58	4	\$123.73	\$9,040,372.78	73,064.800	TN	N	SUPERPAVE ASPH CONC, TRAF D, HIGH POLYM
0337 7 25	57	\$139.84	\$48,580,200.29	347,395.400	TN	N	ASPH CONC FC,INC BIT,FC-5,PG76-22
0337 7 26	2	\$152.48	\$1,538,569.15	10,090.400	TN	N	ASPH CONC FC,FC-5,FC-5, HIGH POLYMER
0337 7 80	13	\$112.09	\$4,018,976.97	35,855.100	TN	N	ASPH CONC FC,TRAFFIC B,FC-9.5,PG 76-22
0337 7 81	18	\$131.64	\$8,205,922.63	62,337.600	TN	N	ASPH CONC FC,TRAFFIC B,FC-12.5,PG 76-22

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0337 7 82	31	\$141.27	\$8,321,481.45	58,903.200	TN	N	ASPH CONC FC,TRAFFIC C,FC-9.5,PG 76-22
0337 7 83	69	\$113.40	\$36,673,443.17	323,407.700	TN	N	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22
0337 7 85	16	\$124.31	\$5,733,700.68	46,124.200	TN	N	ASPH CONC FC,TRAFFIC D,FC-12.5,PG 76-22
0337 7 90	2	\$133.22	\$4,666,722.73	35,029.800	TN	N	ASPH CONC FC,TRAFFIC B,FC-9.5,HIGH POLYM
0337 7 91	1	\$123.50	\$1,273,075.05	10,308.300	TN	N	ASPH CONC FC,TRAF B,FC-12.5,HIGH POLYMER
0337 7 93	5	\$156.60	\$2,866,590.14	18,305.300	TN	N	ASPH CONC FC,TRAF C,FC-12.5,HIGH POLYMER
0337 7 94	1	\$155.84	\$46,674.08	299.500	TN	N	ASPH CONC FC,TRAF D,FC-12.5,HIGH POLYMER
0339 1	100	\$197.82	\$2,804,300.08	14,175.800	TN	N	MISCELLANEOUS ASPHALT PAVEMENT
0350 3 7	1	\$130.00	\$76,050.00	585.000	SY	N	PLAIN CEMENT CONC PAVT, 9"
0350 3 11	1	\$84.00	\$2,837,772.00	33,783.000	SY	N	PLAIN CEMENT CONC PAVT, 11"
0350 3 13	2	\$80.23	\$440,357.06	5,489.000	SY	N	PLAIN CEMENT CONC PAVT, 12"
0350 3 17	1	\$86.06	\$4,687,257.90	54,465.000	SY	N	PLAIN CEMENT CONC PAVT, 14"
0350 5	3	\$3.30	\$868,645.95	263,371.000	LF	N	CLEANING & SEALING JOINTS - CONC PVMT
0350 6	1	\$10.00	\$29,640.00	2,964.000	LF	N	CLEANING & SEALING CRACKS - CONC PVMT
0350 30 13	3	\$109.15	\$141,028.00	1,292.000	SY	N	CONC PAVEMENT FOR ROUNDABOUT APRON, 12"
0352 70	6	\$8.60	\$1,785,865.66	207,772.000	SY	N	GRINDING CONCRETE PAVT
0353 70	2	\$652.89	\$1,161,565.48	1,779.100	CY	N	CONC PAVT SLAB REPLACEMENT
0370 1	1	\$233.00	\$10,951.00	47.000	LF	N	BRIDGE APPR EXP JOINT FOR CONC PVMT
0400 0 11	25	\$721.20	\$3,280,394.13	4,548.500	CY	N	CONC CLASS NS, GRAVITY WALL
0400 0 13	1	\$510.00	\$35,394.00	69.400	CY	N	CONC CLASS NS, STEPS
0400 1 2	39	\$1,263.69	\$1,335,843.77	1,057.100	CY	N	CONC CLASS I, ENDWALLS
0400 1 11	2	\$745.46	\$277,610.00	372.400	CY	N	CONC CLASS I, RETAINING WALLS
0400 2 1	3	\$1,288.72	\$658,792.62	511.200	CY	N	CONC CLASS II, CULVERTS
0400 2 2	6	\$516.38	\$838,387.36	1,623.600	CY	N	CONC CLASS II, ENDWALLS
0400 2 4	22	\$651.55	\$12,700,591.65	19,492.800	CY	N	CONC CLASS II, BRIDGE SUPERSTRUCTURE
0400 2 5	3	\$1,078.58	\$401,016.82	371.800	CY	N	CONC CLASS II, BRIDGE SUBSTRUCTURE
0400 2 10	30	\$437.75	\$3,595,129.34	8,212.700	CY	N	CONC CLASS II, APPROACH SLABS
0400 2 41	1	\$1,318.21	\$137,357.48	104.200	CY	N	CONC CLASS II, PRECAST DECK OVERLAY
0400 2 47	4	\$770.53	\$247,108.20	320.700	CY	N	CONC CLASS II, CIP TOP W/ SR ADMIX
0400 4 1	12	\$818.33	\$11,362,204.31	13,884.600	CY	N	CONC CLASS IV, CULVERTS
0400 4 4	7	\$772.59	\$2,017,232.60	2,611.000	CY	N	CONC CLASS IV, SUPERSTRUCTURE
0400 4 5	27	\$1,005.33	\$6,636,566.71	6,601.400	CY	N	CONC CLASS IV, SUBSTRUCTURE
0400 4 8	14	\$695.62	\$9,572,567.95	13,761.200	CY	N	CONC CLASS IV, BULKHEAD
0400 4 11	4	\$532.50	\$624,145.50	1,172.100	CY	N	CONC CLASS IV, RETAINING WALLS
0400 4 25	6	\$963.60	\$3,816,997.95	3,961.200	CY	N	CONC CLASS IV, MASS, SUBSTRUCTURE
0400 4 41	1	\$2,673.00	\$9,355.50	3.500	CY	N	CONC CLASS IV, PRECAST DECK OVERLAY
0400 4 47	1	\$9.56	\$3,375.64	353.100	CY	N	CONC CLASS IV, CIP TOP W/SR ADMIX
0400 7	13	\$12.77	\$115,373.64	9,037.000	SY	N	BRIDGE DECK GROOVING, LESS THAN 8.5"
0400 9	13	\$10.92	\$679,950.24	62,254.000	SY	N	BRIDGE DECK GROOV & PLANING, DECK 8.5" GR
0400 32	2	\$10,656.66	\$226,986.76	21.300	CY	N	CONCRETE FOR JOINT REPAIR

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0400 60 1	1	\$69,000.00	\$69,000.00	1.000	LS	N	CATHODIC PROTECTION-ELECT WORK, AC POW
0400 60 3	1	\$4.01	\$91,841.03	22,903.000	LF	N	CATHODIC PROTECTION-ELECT WORK, CODUIT,
0400 60 4	1	\$200,000.00	\$200,000.00	1.000	LS	N	CATHODIC PROTECTION-ELECT WORK, EQUIP,
0400 72	2	\$85.67	\$285,438.84	3,332.000	SF	N	PRECAST BULKHEAD PANELS
0400140 1	3	\$1,810.81	\$268,000.00	148.000	EA	N	NEOPRENE PAD REPLACEMENT, BENT/PIER
0400140 2	3	\$1,178.51	\$80,138.86	68.000	EA	N	NEOPRENE PAD REPLACEMENT, ABUTMENT
0400142 3	2	\$35.80	\$269,836.00	7,538.000	SF	N	CATHODIC PROTECTION SYSTEM, ZINC ALUM SP
0400142 7	1	\$66.32	\$182,711.60	2,755.000	SF	N	CATHODIC PROTECTION SYSTEM,TITANIUM MESH
0400143	6	\$2.17	\$319,053.99	146,988.000	SF	N	CLEAN & COAT CONCRETE SURF , CLASS 5
0400145	1	\$1.25	\$66,787.50	53,430.000	SF	N	CLEANING CONC SURFACE
0400147	14	\$941.12	\$570,788.65	606.500	CF	N	COMPOSITE NEOPRENE PADS
0400148	11	\$1,380.04	\$95,636.45	69.300	CF	N	PLAIN NEOPRENE BEARING PADS
0400153	4	\$472.92	\$44,407.50	93.900	CF	N	NON SHRINK GROUT, F&I, MISCELLANEOUS- RE
0401 70 2	1	\$250.00	\$460,250.00	1,841.000	CF	N	RESTORE SPALL AREA,LATX MOD MTR,STY-BUT
0401 70 3	12	\$446.07	\$1,040,093.00	2,331.700	CF	N	RESTORE SPALL AREA,LATX MOD MTR, ACRYLC
0401 70 4	12	\$671.48	\$552,631.90	823.000	CF	N	RESTORE SPALLED AREAS,PORTLND CEM GROUT
0401 70 5	1	\$2,057.90	\$20,579.00	10.000	CF	N	RESTORE SPALL AREAS,CONTRACTORS OPTION
0401 70 7	6	\$247.39	\$2,428,071.88	9,814.700	CF	N	RESTORE SPALLED AREAS, SHOTCRETE
0403 1 12	1	\$50.00	\$117,250.00	2,345.000	SY	N	EPOXY CONC OVERLAY- CONC BR 44096615201
0403 2 12	1	\$50.00	\$2,500.00	50.000	CF	N	RESTORE SPALLED AR CONC BRI 44096615201
0411 1	14	\$114.60	\$24,867.85	217.000	GA	N	EPOXY MATERIAL- STRUCTURES REHAB
0411 2	14	\$70.08	\$230,428.45	3,288.000	LF	N	CRACKS INJECT & SEAL- STRUCTURES REHAB
0413149	2	\$17.81	\$15,509.96	871.000	GA	N	PENETRANT SEALER
0413151	3	\$83.13	\$53,451.40	643.000	GA	N	METHACRYLATE MONOMER
0413154	5	\$1.05	\$207,528.30	198,267.000	SF	N	CLEAN & SEAL CONC- PENETR OR METHACR
0415 1 1	18	\$.93	\$2,717,992.69	2,915,680.000	LB	N	REINF STEEL- ROADWAY
0415 1 3	4	\$1.14	\$40,801.40	35,783.000	LB	N	REINF STEEL- RETAINING WALL
0415 1 4	32	\$.96	\$4,733,442.37	4,940,491.000	LB	N	REINF STEEL- SUPERSTRUCTURE
0415 1 5	32	\$.99	\$1,795,182.67	1,818,069.000	LB	N	REINF STEEL- SUBSTRUCTURE
0415 1 6	4	\$1.00	\$241,690.10	241,107.000	LB	N	REINF STEEL- MISCELLANEOUS
0415 1 8	12	\$1.04	\$1,654,936.17	1,586,483.000	LB	N	REINF STEEL- BULKHEAD
0415 1 9	29	\$.96	\$1,528,241.44	1,587,337.000	LB	N	REINF STEEL- APPROACH SLABS
0415 2 5	1	\$9.50	\$2,194.50	231.000	LB	N	STAINLESS REINFORCING STEEL, SUB
0415 10 5	4	\$1.78	\$142,614.42	80,282.000	LF	N	FIBER REINFORCED POLYMER BARS, #5 BAR
0415 10 6	1	\$1.68	\$18,664.80	11,110.000	LF	N	FIBER REINFORCED POLYMER BARS, #6 BAR
0415 10 8	1	\$2.29	\$4,765.49	2,081.000	LF	N	FIBER REINFORCED POLYMER BARS, #8 BAR
0415 10 10	1	\$4.37	\$37,625.70	8,610.000	LF	N	FIBER REINFORCED POLYMER BARS, #10 BAR
0425 1201	12	\$4,503.09	\$211,645.36	47.000	EA	N	INLETS, CURB, TYPE 9, <10'
0425 1203	3	\$5,637.62	\$62,013.87	11.000	EA	N	INLETS, CURB, TYPE 9, J BOT, <10'
0425 1204	1	\$5,300.00	\$10,600.00	2.000	EA	N	INLETS, CURB, TYPE 9, J BOT, >10'

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0425 1205	5	\$3,565.36	\$21,392.18	6.000	EA	N	INLETS, CURB, TYPE 9, PARTIAL
0425 1211	3	\$8,392.64	\$50,355.82	6.000	EA	N	INLETS, CURB, TYPE 10, <10'
0425 1311	14	\$5,825.36	\$972,834.74	167.000	EA	N	INLETS, CURB, TYPE P-1, <10'
0425 1312	1	\$7,200.00	\$21,600.00	3.000	EA	N	INLETS, CURB TYPE P-1, >10'
0425 1315	4	\$5,201.98	\$26,009.92	5.000	EA	N	INLETS, CURB TYPE P-1, PARTIAL
0425 1319	1	\$3,500.00	\$7,000.00	2.000	EA	N	INLETS, CURB TYPE P-1, MODIFY
0425 1321	9	\$6,881.46	\$275,258.46	40.000	EA	N	INLETS, CURB, TYPE P-2, <10'
0425 1325	3	\$2,600.35	\$13,001.74	5.000	EA	N	INLETS, CURB, TYPE P-2, PARTIAL
0425 1331	5	\$5,408.61	\$216,344.39	40.000	EA	N	INLETS, CURB, TYPE P-3, <10'
0425 1335	1	\$4,112.00	\$4,112.00	1.000	EA	N	INLETS, CURB, TYPE P-3, PARTIAL
0425 1341	6	\$6,480.13	\$129,602.63	20.000	EA	N	INLETS, CURB, TYPE P-4, <10'
0425 1342	1	\$7,300.00	\$14,600.00	2.000	EA	N	INLETS, CURB, TYPE P-4, >10'
0425 1345	5	\$6,364.55	\$50,916.40	8.000	EA	N	INLETS, CURB, TYPE P-4, PARTIAL
0425 1351	41	\$4,678.76	\$2,170,943.45	464.000	EA	N	INLETS, CURB, TYPE P-5, <10'
0425 1352	7	\$5,732.83	\$63,061.13	11.000	EA	N	INLETS, CURB, TYPE P-5, >10'
0425 1355	12	\$5,028.64	\$176,002.23	35.000	EA	N	INLETS, CURB, TYPE P-5, PARTIAL
0425 1359	2	\$7,276.83	\$21,830.50	3.000	EA	N	INLETS, CURB, TYPE P-5, MODIFY
0425 1361	32	\$5,044.10	\$867,584.62	172.000	EA	N	INLETS, CURB, TYPE P-6, <10'
0425 1362	2	\$5,450.00	\$10,900.00	2.000	EA	N	INLETS, CURB, TYPE P-6, >10'
0425 1365	10	\$4,346.83	\$73,896.19	17.000	EA	N	INLETS, CURB, TYPE P-6, PARTIAL
0425 1411	5	\$6,539.01	\$340,028.31	52.000	EA	N	INLETS, CURB TYPE J-1, <10'
0425 1412	2	\$8,578.43	\$111,519.54	13.000	EA	N	INLETS, CURB, TYPE J-1, >10'
0425 1421	2	\$8,749.37	\$69,994.96	8.000	EA	N	INLETS, CURB, TYPE J-2, <10'
0425 1422	1	\$11,236.59	\$33,709.77	3.000	EA	N	INLETS, CURB, TYPE J-2, >10'
0425 1425	1	\$3,685.00	\$3,685.00	1.000	EA	N	INLETS, CURB, TYPE J-2, PARTIAL
0425 1431	3	\$7,702.82	\$84,731.00	11.000	EA	N	INLETS, CURB, TYPE J-3, <10'
0425 1432	1	\$9,174.56	\$9,174.56	1.000	EA	N	INLETS, CURB, TYPE J-3, >10'
0425 1441	5	\$8,189.32	\$114,650.51	14.000	EA	N	INLETS, CURB, TYPE J-4, <10'
0425 1451	22	\$7,200.62	\$489,642.34	68.000	EA	N	INLETS, CURB, TYPE J-5, <10'
0425 1452	9	\$9,155.49	\$375,375.17	41.000	EA	N	INLETS, CURB, TYPE J-5, >10'
0425 1461	16	\$6,762.52	\$277,263.51	41.000	EA	N	INLETS, CURB, TYPE J-6, <10'
0425 1462	6	\$9,021.70	\$162,390.53	18.000	EA	N	INLETS, CURB, TYPE J-6, >10'
0425 1465	1	\$3,110.00	\$3,110.00	1.000	EA	N	INLETS, CURB, TYPE J-6, PARTIAL
0425 1469	2	\$6,875.00	\$27,500.00	4.000	EA	N	INLETS, CURB, TYPE J-6, MODIFY
0425 1471	11	\$5,271.55	\$616,771.20	117.000	EA	N	INLETS, CURB, TYPE 7, <10'
0425 1472	1	\$6,370.00	\$6,370.00	1.000	EA	N	INLETS, CURB, TYPE 7, >10'
0425 1473	6	\$8,025.11	\$120,376.67	15.000	EA	N	INLETS, CURB, TYPE 7, J BOT , <10'
0425 1474	1	\$6,600.00	\$6,600.00	1.000	EA	N	INLETS, CURB, TYPE 7, J BOT , >10'
0425 1475	1	\$8,236.67	\$8,236.67	1.000	EA	N	INLETS, CURB, TYPE 7, PARTIAL
0425 1481	2	\$5,979.83	\$23,919.30	4.000	EA	N	INLETS, CURB, TYPE 8, <10'

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0425 1485	1	\$8,250.00	\$16,500.00	2.000	EA	N	INLETS, CURB, TYPE 8, PARTIAL
0425 1501	4	\$3,403.99	\$398,267.00	117.000	EA	N	INLETS, DT BOT, TYPE A, <10'
0425 1502	1	\$4,500.00	\$9,000.00	2.000	EA	N	INLETS, DT BOT, TYPE A, >10'
0425 1503	1	\$3,500.00	\$73,500.00	21.000	EA	N	INLETS, DT BOT, TYPE A, J BOT, <10'
0425 1504	1	\$6,500.00	\$39,000.00	6.000	EA	N	INLETS, DT BOT, TYPE A, J BOT, >10'
0425 1505	2	\$2,518.00	\$12,590.00	5.000	EA	N	INLETS, DT BOT, TYPE A, PARTIAL
0425 1511	9	\$4,124.24	\$1,402,242.61	340.000	EA	N	INLETS, DT BOT, TYPE B, <10'
0425 1512	2	\$5,996.15	\$77,950.00	13.000	EA	N	INLETS, DT BOT, TYPE B, >10'
0425 1513	3	\$6,660.48	\$839,220.00	126.000	EA	N	INLETS, DT BOT, TYPE B, J BOT, <10'
0425 1514	2	\$8,108.57	\$227,040.00	28.000	EA	N	INLETS, DT BOT, TYPE B, J BOT, >10'
0425 1515	1	\$4,100.00	\$4,100.00	1.000	EA	N	INLETS, DT BOT, TYPE B, PARTIAL
0425 1521	42	\$3,324.43	\$957,435.17	288.000	EA	N	INLETS, DT BOT, TYPE C, <10'
0425 1522	2	\$5,405.00	\$21,620.00	4.000	EA	N	INLETS, DT BOT, TYPE C, >10'
0425 1523	12	\$5,745.95	\$775,702.63	135.000	EA	N	INLETS, DT BOT, TYPE C, J BOT, <10'
0425 1524	3	\$9,311.69	\$800,805.66	86.000	EA	N	INLETS, DT BOT, TYPE C, J BOT, >10'
0425 1525	7	\$4,504.34	\$58,556.39	13.000	EA	N	INLETS, DT BOT, TYPE C, PARTIAL
0425 1529	9	\$2,986.01	\$86,594.31	29.000	EA	N	INLETS, DT BOT, TYPE C, MODIFY
0425 1531	5	\$3,808.24	\$64,740.00	17.000	EA	N	INLETS, DT BOT, TYPE C MOD- BACK, <10'
0425 1541	31	\$4,047.53	\$785,220.16	194.000	EA	N	INLETS, DT BOT, TYPE D, <10'
0425 1542	2	\$6,043.50	\$12,087.00	2.000	EA	N	INLETS, DT BOT, TYPE D, >10'
0425 1543	8	\$6,966.53	\$188,096.34	27.000	EA	N	INLETS, DT BOT, TYPE D, J BOT, <10'
0425 1544	3	\$7,488.88	\$44,933.26	6.000	EA	N	INLETS, DT BOT, TYPE D, J BOT, >10'
0425 1545	4	\$4,233.00	\$16,932.00	4.000	EA	N	INLETS, DT BOT, TYPE D, PARTIAL
0425 1549	12	\$5,887.35	\$494,537.34	84.000	EA	N	INLETS, DT BOT, TYPE D, MODIFY
0425 1551	11	\$6,276.99	\$213,417.66	34.000	EA	N	INLETS, DT BOT, TYPE E, <10'
0425 1552	1	\$4,778.40	\$4,778.40	1.000	EA	N	INLETS, DT BOT, TYPE E, >10'
0425 1554	1	\$8,000.00	\$8,000.00	1.000	EA	N	INLETS, DT BOT, TYPE E, J BOT, >10'
0425 1555	2	\$2,377.50	\$4,755.00	2.000	EA	N	INLETS, DT BOT, TYPE E, PARTIAL
0425 1559	3	\$4,659.68	\$13,979.05	3.000	EA	N	INLETS, DT BOT, TYPE E, MODIFY
0425 1561	12	\$5,858.70	\$503,848.47	86.000	EA	N	INLETS, DT BOT, TYPE F, <10'
0425 1562	2	\$5,450.00	\$32,700.00	6.000	EA	N	INLETS, DT BOT, TYPE F, >10'
0425 1563	3	\$5,942.86	\$41,600.00	7.000	EA	N	INLETS, DT BOT, TYPE F, J BOT, <10'
0425 1564	3	\$11,340.00	\$170,100.00	15.000	EA	N	INLETS, DT BOT, TYPE F, J BOT, >10'
0425 1565	3	\$5,424.03	\$43,392.20	8.000	EA	N	INLETS, DT BOT, TYPE F, PARTIAL
0425 1569	1	\$6,500.00	\$39,000.00	6.000	EA	N	INLETS, DT BOT, TYPE F, MODIFY
0425 1571	3	\$5,266.05	\$500,274.40	95.000	EA	N	INLETS, DT BOT, TYPE G, <10'
0425 1572	2	\$6,363.64	\$70,000.00	11.000	EA	N	INLETS, DT BOT, TYPE G, >10'
0425 1573	1	\$6,600.00	\$26,400.00	4.000	EA	N	INLETS, DT BOT, TYPE G, J BOT, <10'
0425 1575	3	\$4,050.00	\$16,200.00	4.000	EA	N	INLETS, DT BOT, TYPE G, PARTIAL
0425 1581	9	\$5,226.95	\$114,993.00	22.000	EA	N	INLETS, DT BOT, TYPE H, <10'

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0425 1583	2	\$8,321.49	\$24,964.46	3.000	EA	N	INLETS, DT BOT, TYPE H, J BOTTOM <10'
0425 1585	1	\$4,200.00	\$8,400.00	2.000	EA	N	INLETS, DT BOT, TYPE H, PARTIAL
0425 1589	9	\$8,991.57	\$152,856.76	17.000	EA	N	INLETS, DT BOT, TYPE H, MODIFY
0425 1601	1	\$4,100.00	\$4,100.00	1.000	EA	N	INLETS, DT BOT, TYPE J, <10'
0425 1605	1	\$4,700.00	\$9,400.00	2.000	EA	N	INLETS, DT BOT, TYPE J, PARTIAL
0425 1701	26	\$3,586.89	\$2,159,307.01	602.000	EA	N	INLETS, GUTTER, TYPE S, <10'
0425 1702	4	\$4,189.36	\$155,006.40	37.000	EA	N	INLETS, GUTTER, TYPE S, >10'
0425 1703	6	\$5,970.35	\$173,140.15	29.000	EA	N	INLETS, GUTTER, TYPE S, J BOT<10'
0425 1704	3	\$6,846.67	\$27,386.68	4.000	EA	N	INLETS, GUTTER, TYPE S, J BOT, >10'
0425 1705	2	\$4,817.50	\$9,635.00	2.000	EA	N	INLETS, GUTTER, TYPE S, PARTIAL
0425 1711	11	\$4,090.35	\$233,150.00	57.000	EA	N	INLETS, GUTTER, TYPE V, <10'
0425 1712	2	\$4,438.46	\$57,700.00	13.000	EA	N	INLETS, GUTTER, TYPE V, >10'
0425 1713	1	\$4,456.40	\$4,456.40	1.000	EA	N	INLETS, GUTTER, TYPE V, J BOT, <10'
0425 1714	1	\$8,000.00	\$8,000.00	1.000	EA	N	INLETS, GUTTER, TYPE V, J BOT, >10'
0425 1781	3	\$4,281.42	\$38,532.76	9.000	EA	N	INLETS, MED BARRIER, TYPE 1, <=10'
0425 1783	1	\$5,200.00	\$213,200.00	41.000	EA	N	INLETS, MED BARRIER, TYPE 1, J BOT, <10'
0425 1791	1	\$4,400.00	\$334,400.00	76.000	EA	N	INLETS, MED BARRIER, TYPE 2, J BOT, <=10'
0425 1793	1	\$7,800.00	\$195,000.00	25.000	EA	N	INLETS, MED BARRIER, TYPE 2, J BOT, <10'
0425 1799	1	\$6,100.00	\$12,200.00	2.000	EA	N	INLETS, MED BARRIER, TYPE 2, MODIFY
0425 1881	3	\$4,827.60	\$28,965.61	6.000	EA	N	INLETS, BARRIER WALL, RIG, C&G, <=10'
0425 1891	6	\$4,722.38	\$760,303.28	161.000	EA	N	INLETS, BARRIER WALL, <=10'
0425 1892	3	\$7,217.50	\$28,870.00	4.000	EA	N	INLETS, BARRIER WALL, >10'
0425 1893	2	\$7,087.50	\$170,100.00	24.000	EA	N	INLETS, BARRIER WALL, J BOT, <10'
0425 1895	1	\$5,650.00	\$5,650.00	1.000	EA	N	INLETS, BARRIER WALL, PARTIAL
0425 1899	1	\$4,200.00	\$554,400.00	132.000	EA	N	INLETS, BARRIER WALL, MODIFY
0425 1910	21	\$4,194.21	\$281,011.83	67.000	EA	N	INLETS, CLOSED FLUME
0425 2 41	21	\$5,499.57	\$819,436.12	149.000	EA	N	MANHOLES, P-7, <10'
0425 2 42	2	\$4,818.66	\$19,274.65	4.000	EA	N	MANHOLES, P-7, >10'
0425 2 43	21	\$2,078.05	\$145,463.80	70.000	EA	N	MANHOLES, P-7, PARTIAL
0425 2 61	41	\$3,929.53	\$1,033,466.43	263.000	EA	N	MANHOLES, P-8, <10'
0425 2 62	13	\$4,893.89	\$215,330.99	44.000	EA	N	MANHOLES, P-8, >10'
0425 2 63	22	\$3,100.10	\$155,004.83	50.000	EA	N	MANHOLES, P-8, PARTIAL
0425 2 71	17	\$7,241.85	\$224,497.46	31.000	EA	N	MANHOLES, J-7, <10'
0425 2 72	3	\$9,253.85	\$120,300.00	13.000	EA	N	MANHOLES, J-7, >10'
0425 2 73	6	\$2,989.95	\$44,849.20	15.000	EA	N	MANHOLES, J-7, PARTIAL
0425 2 91	24	\$6,027.05	\$675,029.22	112.000	EA	N	MANHOLES, J-8, <10'
0425 2 92	19	\$8,292.53	\$688,279.62	83.000	EA	N	MANHOLES, J-8, >10'
0425 2 93	8	\$3,063.58	\$70,462.28	23.000	EA	N	MANHOLES, J-8, PARTIAL
0425 3 41	2	\$4,533.33	\$13,600.00	3.000	EA	N	JUNCTION BOX, DRAINAGE, P-7, <10'
0425 3 43	7	\$3,437.30	\$58,434.11	17.000	EA	N	JUNCTION BOX, DRAINAGE, P-7, PARTIAL

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0425 3 61	2	\$14,650.00	\$29,300.00	2.000	EA	N	JUNCTION BOXES, J-7, <10'
0425 3 63	2	\$2,880.00	\$5,760.00	2.000	EA	N	JUNCTION BOXES, DRAINAGE, J-7, PARTIAL
0425 4	5	\$1,622.62	\$56,791.84	35.000	EA	N	INLETS, ADJUST
0425 5	58	\$799.30	\$404,448.20	506.000	EA	N	MANHOLE, ADJUST
0425 5 1	29	\$808.64	\$271,704.35	336.000	EA	N	MANHOLE, ADJUST, UTILITIES
0425 6	38	\$464.95	\$291,058.17	626.000	EA	N	VALVE BOXES, ADJUST
0425 7	2	\$1,463.67	\$4,391.00	3.000	EA	N	MANHOLE COVER- REPLACE
0425 11	13	\$2,653.30	\$98,172.11	37.000	EA	N	MODIFY EXISTING DRAINAGE STRUCTURE
0425 14 1	1	\$950.00	\$14,250.00	15.000	SF	N	GRATE FOR EXISTING DRAINAGE STR, FUR INS
0425 74 1	1	\$1,600.00	\$16,000.00	10.000	EA	N	MANHOLES & INLETS CLEANING & SEAL, <10'
0425 78	2	\$2,703.00	\$10,812.00	4.000	EA	N	INLET CAP, PRECAST
0425 82	11	\$1,558.88	\$204,213.83	131.000	EA	N	REPLACE GRATE
0430 94 1	10	\$7.87	\$168,904.17	21,456.000	LF	N	DESILTING PIPE, 0 - 24"
0430 94 2	6	\$8.78	\$18,111.90	2,063.000	LF	N	DESILTING PIPE, 25 - 36"
0430 94 3	3	\$11.98	\$47,033.70	3,927.000	LF	N	DESILTING PIPE, 37 - 48"
0430 94 4	1	\$27.60	\$6,734.40	244.000	LF	N	DESILTING PIPE, 49 - 60"
0430173115	1	\$253.00	\$2,024.00	8.000	LF	N	PIPE CULV OPT MATL, ROUND, 15", GD
0430173118	3	\$96.74	\$132,916.00	1,374.000	LF	N	PIPE CULV OPT MATL, ROUND, 18", GD
0430173124	2	\$94.95	\$191,885.00	2,021.000	LF	N	PIPE CULV OPT MATL, ROUND, 24", GD
0430173130	2	\$116.07	\$107,595.00	927.000	LF	N	PIPE CULV OPT MATL, ROUND, 30", GD
0430173136	2	\$164.99	\$59,891.00	363.000	LF	N	PIPE CULV OPT MATL, ROUND, 36", GD
0430173142	1	\$113.00	\$52,319.00	463.000	LF	N	PIPE CULV OPT MATL, ROUND, 42"GD
0430174112	1	\$413.63	\$1,654.52	4.000	LF	N	PIPE CULV, OPT MATL, ROUND, 12"SD
0430174115	9	\$113.02	\$48,145.06	426.000	LF	N	PIPE CULV, OPT MATL, ROUND, 15"SD
0430174118	45	\$78.59	\$749,750.65	9,540.000	LF	N	PIPE CULV, OPT MATL, ROUND, 18"SD
0430174124	29	\$91.24	\$360,872.86	3,955.000	LF	N	PIPE CULV, OPT MATL, ROUND, 24"SD
0430174130	9	\$90.22	\$186,763.17	2,070.000	LF	N	PIPE CULV, OPT MATL, ROUND, 30"SD
0430174136	9	\$144.72	\$104,055.30	719.000	LF	N	PIPE CULV, OPT MATL, ROUND, 36"SD
0430174142	1	\$240.00	\$5,760.00	24.000	LF	N	PIPE CULV, OPT MATL, ROUND, 42"SD
0430174172	1	\$412.14	\$52,753.92	128.000	LF	N	PIPE CULV, OPT MATL, ROUND, 72"SD
0430174215	2	\$337.69	\$5,065.28	15.000	LF	N	PIPE CULV, OPT MATL, OTHER, 15"SD
0430174218	22	\$96.22	\$504,406.97	5,242.000	LF	N	PIPE CULV, OPT MATL, OTHER, 18"SD
0430174224	9	\$120.19	\$136,775.39	1,138.000	LF	N	PIPE CULV, OPT MATL, OTHER, 24"SD
0430174230	6	\$156.39	\$65,841.15	421.000	LF	N	PIPE CULV, OPT MATL, OTHER, 30"SD
0430174236	1	\$181.92	\$26,560.32	146.000	LF	N	PIPE CULV, OPT MATL, OTHER, 36"SD
0430175112	9	\$75.26	\$61,415.14	816.000	LF	N	PIPE CULV, OPT MATL, ROUND, 12"S/CD
0430175115	33	\$120.30	\$284,625.51	2,366.000	LF	N	PIPE CULV, OPT MATL, ROUND, 15"S/CD
0430175118	87	\$65.13	\$14,432,574.93	221,608.000	LF	N	PIPE CULV, OPT MATL, ROUND, 18"S/CD
0430175124	55	\$73.65	\$10,730,853.88	145,709.000	LF	N	PIPE CULV, OPT MATL, ROUND, 24"S/CD
0430175130	34	\$94.92	\$6,129,812.95	64,582.000	LF	N	PIPE CULV, OPT MATL, ROUND, 30"S/CD

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0430175136	32	\$117.92	\$5,786,816.75	49,075.000	LF	N	PIPE CULV, OPT MATL, ROUND, 36"S/CD
0430175142	15	\$148.41	\$3,162,670.80	21,311.000	LF	N	PIPE CULV, OPT MATL, ROUND, 42"S/CD
0430175148	13	\$202.13	\$4,128,380.80	20,424.000	LF	N	PIPE CULV, OPT MATL, ROUND, 48"S/CD
0430175154	10	\$276.64	\$1,045,978.60	3,781.000	LF	N	PIPE CULV, OPT MATL, ROUND, 54"S/CD
0430175160	4	\$328.11	\$406,522.26	1,239.000	LF	N	PIPE CULV, OPT MATL, ROUND, 60"S/CD
0430175166	1	\$1,315.23	\$23,674.14	18.000	LF	N	PIPE CULV, OPT MATL, ROUND, 66"S/CD
0430175172	1	\$400.00	\$78,400.00	196.000	LF	N	PIPE CULV, OPT MATL, ROUND, 72"S/CD
0430175215	8	\$208.96	\$88,391.36	423.000	LF	N	PIPE CULV, OPT MATL, OTHER, 15"S/CD
0430175218	25	\$106.59	\$715,231.89	6,710.000	LF	N	PIPE CULV, OPT MATL, OTHER, 18"S/CD
0430175224	18	\$108.83	\$499,955.81	4,594.000	LF	N	PIPE CULV, OPT MATL, OTHER, 24"S/CD
0430175230	11	\$139.93	\$391,650.59	2,799.000	LF	N	PIPE CULV, OPT MATL, OTHER, 30"S/CD
0430175236	7	\$169.61	\$776,126.71	4,576.000	LF	N	PIPE CULV, OPT MATL, OTHER, 36"S/CD
0430175242	2	\$211.39	\$176,513.00	835.000	LF	N	PIPE CULV, OPT MATL, OTHER, 42"S/CD
0430175248	3	\$323.99	\$83,589.48	258.000	LF	N	PIPE CULV, OPT MATL, OTHER, 48"S/CD
0430175254	1	\$311.00	\$28,612.00	92.000	LF	N	PIPE CULV, OPT MATL, OTHER, 54"S/CD
0430175272	1	\$1,220.00	\$9,760.00	8.000	LF	N	PIPE CULV, OPT MATL, OTHER, 72"S/CD
0430184 30	1	\$1,605.07	\$115,565.04	72.000	LF	N	PIPE CULV,OPT MATL, ROUND, JACK&BORE,30"
0430185124	3	\$388.68	\$113,884.00	293.000	LF	N	PIPE CULV,OPT MATL, ROUND, JACK&BORE,24"
0430185130	1	\$813.50	\$61,012.50	75.000	LF	N	PIPE CULV,OPT MATL, ROUND, JACK&BORE,30"
0430185136	1	\$510.00	\$110,160.00	216.000	LF	N	PIPE CULV,OPT MATL, ROUND, JACK&BORE,36"
0430185142	1	\$2,194.54	\$70,225.28	32.000	LF	N	PIPE CULV,OPT MATL, ROUND, JACK&BORE,42"
0430185148	1	\$900.00	\$56,700.00	63.000	LF	N	PIPE CULV,OPT MATL, ROUND, JACK&BORE,48"
0430185160	1	\$1,514.82	\$349,923.42	231.000	LF	N	PIPE CULV,OPT MATL, ROUND, JACK&BORE,60"
0430185178	1	\$3,260.00	\$309,700.00	95.000	LF	N	PIPE CULV,OPT MATL, ROUND, JACK&BORE,78"
0430200 25	3	\$2,628.57	\$92,000.00	35.000	EA	N	FLARED END SECTION, CONCRETE, 18"
0430200 29	2	\$2,500.00	\$10,000.00	4.000	EA	N	FLARED END SECTION, CONCRETE, 24"
0430602123	1	\$3,500.00	\$3,500.00	1.000	EA	N	U-ENDWALL,W \GR, 260/430-010,1:4 SLP,15"
0430602125	1	\$2,900.00	\$5,800.00	2.000	EA	N	U-ENDWALL,W \GR 260/430-010,1:4 SLP,18"
0430602133	1	\$3,950.00	\$7,900.00	2.000	EA	N	U-ENDWALL,W \GR 260/430-010,1:4 SLP,30"
0430610025	1	\$7,310.00	\$7,310.00	1.000	EA	N	U-ENDWALL,INDEX 261/430-011,1:6 SLP, 18"
0430610125	1	\$2,075.37	\$4,150.74	2.000	EA	N	U-ENDWALL,INDEX261/430-011,1:4 SLP, 18"
0430610129	1	\$2,421.80	\$4,843.60	2.000	EA	N	U-ENDWALL,INDEX 261/430-011,1:4 SLP, 24"
0430611025	2	\$3,622.50	\$7,245.00	2.000	EA	N	U-ENDWALL,INDEX 261,BAFFLES,1:6 SLP, 18"
0430611029	2	\$2,605.00	\$7,815.00	3.000	EA	N	U-ENDWALL,INDEX 261,BAFFLES,1:6 SLP, 24"
0430611125	4	\$2,583.00	\$25,830.00	10.000	EA	N	U-ENDWALL, BAFF,261/430-011,1:4 SLP, 18"
0430611129	3	\$2,766.67	\$16,600.00	6.000	EA	N	U-ENDWALL, BAFF,261/430-011,1:4 SLP, 24"
0430611133	3	\$3,500.00	\$17,500.00	5.000	EA	N	U-ENDWALL /BAFF,261/430-011, 1:4 SLP,30"
0430611225	2	\$3,046.65	\$36,559.74	12.000	EA	N	U-ENDWALL, BAFF,261/430-011,1:3 SLP,18"
0430611229	3	\$2,276.56	\$50,084.38	22.000	EA	N	U-ENDWALL, BAFF,261/430-011,1:3 SLP, 24"
0430611233	2	\$3,433.33	\$10,300.00	3.000	EA	N	U-ENDWALL,BAFF, 261/430-011,1:3 SLP, 30"

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0430611325	4	\$2,854.68	\$31,401.44	11.000	EA	N	U-ENDWALL, BAFF, 261/430-011,1:2 SLP,18"
0430612025	4	\$4,476.02	\$120,852.62	27.000	EA	N	U-ENDWALL, GRATE, 1:6 SLP,18"
0430612125	1	\$2,200.00	\$8,800.00	4.000	EA	N	U-ENDWALL, GRATE, 1:4 SLP,18"
0430612133	1	\$6,586.19	\$6,586.19	1.000	EA	N	U-ENDWALL, GRATE,1:4 SLP,30"
0430613025	2	\$4,065.38	\$52,850.00	13.000	EA	N	U-ENDWALL,BAF& GRATE,1:6 SLP,18"
0430613029	1	\$3,700.00	\$3,700.00	1.000	EA	N	U-ENDWALL,BAF& GRATE,1:6 SLP,24"
0430613033	1	\$5,500.00	\$11,000.00	2.000	EA	N	U-ENDWALL,BAF& GRATE,1:6 SLP,30"
0430821 25	1	\$500.00	\$1,000.00	2.000	EA	N	CLEANING & SEALING EXIST PIPE JNT,18" SS
0430821 29	1	\$500.00	\$2,000.00	4.000	EA	N	CLEANING & SEALING EXIST PIPE JNT,24" SS
0430821 33	1	\$4,070.00	\$4,070.00	1.000	EA	N	CLEANING & SEALING EXIST PIPE JNT,30" SS
0430830	21	\$290.96	\$256,914.93	883.000	CY	N	PIPE FILLING AND PLUGGING
0430880 01	1	\$6,799.00	\$20,397.00	3.000	EA	N	FLAP GATES, 0-24"
0430880 02	1	\$11,390.00	\$34,170.00	3.000	EA	N	FLAP GATES, 25-36"
0430886 60	2	\$7,172.50	\$28,690.00	4.000	EA	N	MANATEE GRATE FOR 60" OR GREATER PIPE
0430950	6	\$230.26	\$533,037.97	2,314.900	CY	N	DESILTING CONCRETE BOX CULVERT
0430963 1	2	\$41.63	\$16,110.00	387.000	LF	N	PVC PIPE FOR BACK OF SIDEWALK, 4"
0430982123	6	\$1,599.28	\$12,794.22	8.000	EA	N	MITERED END SECT, OPTIONAL RD, 15" CD
0430982125	30	\$1,561.94	\$285,834.94	183.000	EA	N	MITERED END SECT, OPTIONAL RD, 18" CD
0430982129	23	\$1,702.81	\$170,280.61	100.000	EA	N	MITERED END SECT, OPTIONAL RD, 24" CD
0430982133	12	\$2,447.21	\$132,149.11	54.000	EA	N	MITERED END SECT, OPTIONAL RD, 30" CD
0430982138	11	\$3,151.47	\$122,907.44	39.000	EA	N	MITERED END SECT, OPTIONAL RD, 36" CD
0430982140	8	\$5,419.49	\$108,389.84	20.000	EA	N	MITERED END SECT, OPTIONAL RD, 42" CD
0430982141	5	\$5,036.25	\$60,435.00	12.000	EA	N	MITERED END SECT, OPTIONAL RD, 48" CD
0430982142	4	\$8,517.50	\$34,070.00	4.000	EA	N	MITERED END SECT, OPTIONAL RD, 54" CD
0430982143	2	\$8,619.21	\$17,238.41	2.000	EA	N	MITERED END SECT, OPTIONAL RD, 60" CD
0430982625	7	\$2,088.39	\$87,712.58	42.000	EA	N	MITERED END SECT, OPT - OTHER, 18" CD
0430982629	12	\$2,375.57	\$45,135.88	19.000	EA	N	MITERED END SECT, OPT - OTHER, 24" CD
0430982633	7	\$2,954.47	\$47,271.57	16.000	EA	N	MITERED END SECT, OPT - OTHER, 30" CD
0430982638	2	\$1,199.85	\$17,997.74	15.000	EA	N	MITERED END SECT, OPT - OTHER, 36" CD
0430984123	5	\$1,125.87	\$23,643.36	21.000	EA	N	MITERED END SECT, OPTIONAL RD, 15" SD
0430984125	42	\$1,379.47	\$692,496.42	502.000	EA	N	MITERED END SECT, OPTIONAL RD, 18" SD
0430984129	30	\$1,628.61	\$343,636.04	211.000	EA	N	MITERED END SECT, OPTIONAL RD, 24" SD
0430984133	9	\$3,170.64	\$237,797.89	75.000	EA	N	MITERED END SECT, OPTIONAL RD, 30" SD
0430984138	7	\$4,436.57	\$66,548.50	15.000	EA	N	MITERED END SECT, OPTIONAL RD, 36" SD
0430984140	1	\$7,440.00	\$14,880.00	2.000	EA	N	MITERED END SECT, OPTIONAL RD, 42" SD
0430984623	1	\$3,716.67	\$7,433.34	2.000	EA	N	MITERED END SECT, OPTIONAL,OTHER,15" SD
0430984625	21	\$1,439.45	\$310,921.06	216.000	EA	N	MITERED END SECT, OPT / OTHER, 18" SD
0430984629	10	\$2,410.72	\$118,125.40	49.000	EA	N	MITERED END SECT, OPT / OTHER, 24" SD
0430984633	5	\$3,694.36	\$48,026.68	13.000	EA	N	MITER END SECT, OPT/ELLIP/ARCH, 30" SD
0430984638	2	\$2,278.50	\$4,557.00	2.000	EA	N	MITER END SECT, OPT/ELLIP/ARCH, 36" SD

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0430984645	1	\$27,000.00	\$27,000.00	1.000	EA	N	MITER END SECT, OPT/ELLIP/ARCH, 72" SD
0430990	1	\$2,500.00	\$5,000.00	2.000	EA	N	MITERED END SECT, REPLACE GRATE
0430991	4	\$948.51	\$36,043.49	38.000	EA	N	MITERED END SECT, REPLACE SLAB
0432 3 4	1	\$725.00	\$1,450.00	2.000	EA	N	CHEM GROUT REPAIR, PIPE, NON-TEST, 24"
0433 1	1	\$1,316.65	\$1,316.65	1.000	EA	N	CHEM GROUT REPAIR, MANHOLE / INLET
0436 1 1	15	\$278.80	\$718,470.09	2,577.000	LF	N	TRENCH DRAIN, STANDARD
0440 1 10	1	\$30.00	\$8,100.00	270.000	LF	N	UNDERDRAIN, TYPE I
0440 1 20	2	\$46.46	\$140,314.50	3,020.000	LF	N	UNDERDRAIN, TYPE II
0440 1 30	1	\$33.00	\$50,589.00	1,533.000	LF	N	UNDERDRAIN, TYPE III
0440 1 50	1	\$143.00	\$50,622.00	354.000	LF	N	UNDERDRAIN, TYPE V
0440 70	1	\$1,950.00	\$17,550.00	9.000	EA	N	UNDERDRAIN INSPECTION BOX
0440 73 2	5	\$37.23	\$10,983.22	295.000	LF	N	UNDERDRAIN OUTLET PIPE, 6"
0442 70	2	\$.60	\$931,700.00	1,554,800.000	LF	N	VERTICAL DRAINAGE WICKS
0443 70 3	3	\$92.35	\$592,775.00	6,419.000	LF	N	FRENCH DRAIN, 18"
0443 70 4	6	\$117.11	\$2,515,359.37	21,478.000	LF	N	FRENCH DRAIN, 24"
0443 70 5	1	\$215.00	\$447,415.00	2,081.000	LF	N	FRENCH DRAIN, 30"
0443 70 6	3	\$205.65	\$775,934.50	3,773.000	LF	N	FRENCH DRAIN, 36"
0443 70 7	1	\$285.00	\$1,301,310.00	4,566.000	LF	N	FRENCH DRAIN, 42"
0446 1 1	3	\$25.86	\$2,471,174.90	95,578.000	LF	N	EDGEDRAIN DRAINCRETE, STANDARD
0446 71 1	3	\$31.37	\$239,420.86	7,631.000	LF	N	EDGEDRAIN OUTLET PIPE, 4"
0450 1 1	2	\$248.69	\$222,078.27	893.000	LF	N	PREST BEAMS, TYPE II
0450 2 36	6	\$242.20	\$2,147,552.20	8,867.000	LF	N	PREST BEAMS: FLORIDA-I BEAM 36"
0450 2 45	4	\$238.47	\$5,099,510.00	21,384.000	LF	N	PREST BEAMS: FLORIDA-I BEAM 45"
0450 2 54	3	\$270.67	\$3,763,655.00	13,905.000	LF	N	PREST BEAMS: FLORIDA-I BEAM 54"
0450 2 63	2	\$254.57	\$1,409,569.33	5,537.000	LF	N	PREST BEAMS: FLORIDA-I BEAM 63"
0450 2 72	4	\$282.98	\$3,454,017.00	12,206.000	LF	N	PREST BEAMS: FLORIDA-I BEAM 72"
0450 2 78	2	\$281.60	\$2,818,010.00	10,007.000	LF	N	PREST BEAMS: FLORIDA-I BEAM 78"
0450 3 25	2	\$387.39	\$388,935.24	1,004.000	LF	N	PRESTRESSED SLAB UNITS, 60" X 15"
0450 3 95	1	\$372.54	\$63,704.34	171.000	LF	N	PRESTRESSED SLAB UNITS, VAR WI 30-47", 15
0450 8 12	1	\$250.00	\$58,250.00	233.000	LF	N	PREST BEAM: FL SLAB BEAM, 12" D, 52-54" W
0450 8 13	1	\$270.00	\$104,490.00	387.000	LF	N	PREST BEAM: FL SLAB BEAM, 12" D, 55-57" W
0450 8 21	1	\$583.00	\$328,812.00	564.000	LF	N	PREST BEAM: FL SLAB BEAM, 15" D, 48-51" W
0450 8 22	2	\$296.44	\$324,300.00	1,094.000	LF	N	PREST BEAM: FL SLAB BEAM, 15" D, 52-54" W
0450 8 23	1	\$507.00	\$461,370.00	910.000	LF	N	PREST BEAM: FL SLAB BEAM, 15" D, 55-57" W
0450 82	1	\$460.00	\$3,323,500.00	7,225.000	LF	N	BEAM REPAIR
0450 83 1	2	\$5,334.13	\$170,692.00	32.000	EA	N	BEAM REPAIR, STRAND SPLICES
0450 88 15	1	\$106.75	\$37,469.25	351.000	SF	N	PRESTR SLAB UNITS TRANSV POST TENS, 15"
0451 70	2	\$6,255.24	\$412,845.58	66.000	EA	N	PREST SOIL ANCHORS
0451 70 1	1	\$1,100.00	\$2,200.00	2.000	EA	N	PREST SOIL ANCHOR, PERFORMANCE TEST
0451 70 2	1	\$2,750.00	\$5,500.00	2.000	EA	N	PREST SOIL ANCHOR, CREEP TEST

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0455 14 2	2	\$339.29	\$283,650.00	836.000	LF	N	CONC SHEET PILING, 8"X30"
0455 14 4	1	\$3,843.32	\$165,262.76	43.000	LF	N	CONC SHEET PILING, 12"X30"
0455 34 2	1	\$444.00	\$159,840.00	360.000	LF	N	PRESTRESSED CONCRETE PILING, 14" SQ.
0455 34 3	9	\$115.87	\$2,816,414.50	24,307.000	LF	N	PRESTRESSED CONCRETE PILING, 18" SQ
0455 34 5	7	\$95.96	\$14,265,798.26	148,671.000	LF	N	PRESTRESSED CONCRETE PILING, 24" SQ
0455 34 6	1	\$204.00	\$2,013,480.00	9,870.000	LF	N	PRESTRESSED CONCRETE PILING, 30" SQ
0455 34 23	1	\$224.55	\$411,824.70	1,834.000	LF	N	PREST CONC PILING, 18" W/FRP SS STRAND R
0455 35 6	1	\$153.98	\$559,563.32	3,634.000	LF	N	STEEL PILING, HP 14 X 89
0455 35 20	1	\$762.00	\$74,676.00	98.000	LF	N	STEEL PILING, 18" DIA. PIPE
0455 35 21	1	\$90.00	\$122,490.00	1,361.000	LF	N	STEEL PILING, 20" DIA. PIPE
0455 35 22	2	\$165.37	\$349,260.00	2,112.000	LF	N	STEEL PILING, 24" DIA. PIPE
0455 76	4	\$500.97	\$359,700.00	718.000	EA	N	WRAP PILE CLUSTERS
0455 81106	1	\$1,700.00	\$489,600.00	288.000	EA	N	CATHODIC PROT,F&I,PIER,OTHER MATERIAL
0455 87	3	\$1,674.19	\$51,900.00	31.000	EA	N	ANCHOR BAR, STEEL
0455 88 5	1	\$2,200.00	\$103,400.00	47.000	LF	N	DRILLED SHAFT, 48" DIA
0455107 5	1	\$360.00	\$16,920.00	47.000	LF	N	DRILLED SHAFT CASING, 48" DIA
0455107 8	1	\$498.50	\$5,982.00	12.000	LF	N	DRILLED SHAFT CASING, 54" DIA
0455120 7	1	\$550.00	\$7,700.00	14.000	EA	N	PILE POINT PROTECTION, 24" ROUND
0455133 2	12	\$31.22	\$5,514,431.11	176,644.000	SF	N	SHEET PILING STEEL, TEMPORARY-CRITICAL
0455133 3	7	\$40.63	\$3,350,452.16	82,456.000	SF	N	SHEET PILING STEEL, F&I PERMANENT
0455143 3	10	\$264.29	\$1,287,904.55	4,873.000	LF	N	TEST PILES-PREST CONCRETE,18" SQ
0455143 5	7	\$224.00	\$2,466,642.00	11,012.000	LF	N	TEST PILES-PREST CONCRETE,24" SQ
0455143 6	1	\$350.00	\$652,750.00	1,865.000	LF	N	TEST PILES-PREST CONCRETE,30" SQ
0455143 23	1	\$287.94	\$48,949.80	170.000	LF	N	TEST PILE- PRES CONC, 18" SQ W/FRP OR SS
0455143 25	1	\$675.00	\$97,875.00	145.000	LF	N	TEST PILE- PRES CONC, 24" SQ W/FRP OR SS
0455144 20	1	\$585.00	\$23,400.00	40.000	LF	N	TEST PILES - STEEL, 18" DIA PIPE
0455144 21	1	\$150.00	\$49,500.00	330.000	LF	N	TEST PILES - STEEL, 20" DIA PIPE
0455144 22	2	\$200.89	\$124,150.00	618.000	LF	N	TEST PILES - STEEL, 24" DIA PIPE
0457 1 11	1	\$850.00	\$48,450.00	57.000	LF	N	STD INTEGRAL PILE JKT, NON-STR, UP TO 16
0457 1 12	2	\$797.99	\$327,177.30	410.000	LF	N	STD INTEGRAL PILE JKT, NON-STR, 16 to 30
0457 1 21	2	\$656.63	\$720,980.00	1,098.000	LF	N	STD INTEGRAL PILE JKT, STR, UP TO 16
0457 1 22	5	\$766.92	\$658,780.00	859.000	LF	N	STD INTEGRAL PILE JKT, STR, 16 to 30
0457 2121	3	\$1,591.55	\$565,000.00	355.000	LF	N	CATH PROT INTE PILE JA, NON-STR, 16.1-30
0457 2221	9	\$1,492.93	\$5,231,212.00	3,504.000	LF	N	CATH PROT INTE PILE JA, STR, 16.1-30
0458 1 11	26	\$49.90	\$435,074.56	8,719.000	LF	N	BRIDGE DECK EXPANSION JNT,NEW,POURED
0458 1 12	1	\$325.00	\$98,475.00	303.000	LF	N	BRIDGE DECK EXPANSION JNT,NEW,STRIP SEAL
0458 1 21	24	\$46.29	\$619,888.93	13,390.000	LF	N	BRIDGE DECK EXPANSION JNT, REHAB,POURED
0458 1 22	2	\$291.63	\$123,650.00	424.000	LF	N	BRIDGE DECK EXPANSION JNT, REHAB,STRIP
0458 1 23	1	\$90.00	\$84,150.00	935.000	LF	N	BRIDGE DECK EXPANSION JNT, REHAB,MODULAR
0458 1 24	1	\$1,600.00	\$80,000.00	50.000	LF	N	BRIDGE DECK EXPAN JNT,REHAB,FINGER JNT

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0458 2	9	\$685.59	\$871,178.90	1,270.700	CF	N	POLYMER NOSING FOR BRIDGE DECK EXPANSION
0459 71	6	\$6.47	\$56,263.48	8,696.000	SY	N	PILES, POLYETHYLENE SHEETING
0460 1 1	1	\$45.60	\$78,432.00	1,720.000	LB	N	STRUCT STEEL- REHAB, CARBON
0460 1 5	1	\$100.00	\$24,700.00	247.000	LB	N	STRUCT STEEL-REHAB, BASCULE LEAVES
0460 1 12	1	\$100.00	\$17,300.00	173.000	LB	N	STRUCT STEEL-REHAB, FLANKING SPAN
0460 1 13	2	\$20.00	\$25,400.00	1,270.000	LB	N	STRUCT STEEL REHAB-BOLT, NUT, WASH & PLT
0460 1 15	2	\$18.21	\$714,082.00	39,206.000	LB	N	STRUCT STEEL - REHAB, MISC.
0460 2 1	1	\$7.32	\$9,589.20	1,310.000	LB	N	STRUCT STEEL, CARBON
0460 7	2	\$311.62	\$666,860.00	2,140.000	SF	N	PREFABRICATED STEEL PED BRIDGE
0460 71 1	2	\$161.97	\$130,709.21	807.000	LF	N	METAL TRAF RAILING, THRIE BEAM RETROFIT
0460 71 4	1	\$65.00	\$83,850.00	1,290.000	LF	N	METAL TRAF RAILING, RECTANGULAR TUBE RET
0460 81	4	\$210.25	\$170,300.00	810.000	EA	N	RIVETS - HIGH STRENGTH BOLTS, REPLACE
0462 2 11	1	\$30.00	\$11,730.00	391.000	LB	N	POST TENSIONING TENDONS, SUPSTR STRAND G
0465 2105	1	\$120,000.00	\$480,000.00	4.000	AS	N	MOV BRDG MACH & CAST-REHAB,F&I,SPAN LOCK
0465 2108	1	\$45,725.00	\$45,725.00	1.000	LS	N	MOV BRDG MACH & CAST-REHAB,F&I,LIVE LOAD
0465 2154	1	\$50,000.00	\$50,000.00	1.000	EA	N	MOV BRDG MACH & CAST-REHAB,F&I,HYDRAULIC
0465 2155	2	\$124,000.00	\$620,000.00	5.000	EA	N	MOV BRDG MACH & CAST-REHAB,F&I,HYDRAULIC
0465 2401	1	\$85,000.00	\$85,000.00	1.000	LS	N	MOV BRDG MACH & CAST-REHAB,REC, SPEED
0465 2405	2	\$34,785.52	\$173,927.60	5.000	AS	N	MOV BRDG MACH & CAST-REHAB,REHAB,SPAN LK
0465 2407	1	\$10,000.00	\$10,000.00	1.000	EA	N	MOV BRDG MACH & CAST-REHAB,REC, COUPLING
0465 2408	1	\$60,000.00	\$60,000.00	1.000	LS	N	MOV BRDG MACH&CAST-REHAB,REHAB,LL SHOES
0465 2410	1	\$23,500.00	\$47,000.00	2.000	EA	N	MOV BRDG MACH & CAST-REHAB,RECONDITION
0465 2460	1	\$9,204.00	\$9,204.00	1.000	LS	N	MOV BRDG MACH & CAST-REHAB,RECOND, OTHER
0465 2505	1	\$4,838.00	\$9,676.00	2.000	AS	N	MOV BRDG MACH & CAST-REHAB,REC, ADJ/MOD,
0465 2508	2	\$39,753.93	\$119,261.80	3.000	LS	N	MOV BRDG MACH & CAST-REHAB,REC, ADJ/MOD,
0465 2605	2	\$9,627.45	\$77,019.60	8.000	AS	N	MOV BRDG MACH & CAST-REHAB,R&D,SPAN LOCK
0465 2654	1	\$6,000.00	\$6,000.00	1.000	EA	N	MOV BRDG MACH & CAST-REHAB,R&D,HYDRLC
0465 2660	1	\$7,500.00	\$7,500.00	1.000	LS	N	MOV BRDG MACH & CAST-REHAB,R&D,HYDRLC
0465 3 17	2	\$95.00	\$3,800.00	40.000	EA	N	MOVABLE BRIDGE COUNTERWEIGHT, F&I,BAL BL
0465 3 50	4	\$10,685.91	\$138,916.80	13.000	EA	N	MOVABLE BRIDGE COUNTERWEIGHT, ADJ
0465 3 96	1	\$6,500.00	\$13,000.00	2.000	EA	N	MOVABLE BRIDGE COUNTERWEIGHT, CLN,POCKET
0465 20	6	\$128.55	\$223,682.40	1,740.000	DA	N	MOVABLE BRIDGE- PREV MAINT & ROUT REPAIR
0465 21	6	\$409.16	\$536,000.00	1,310.000	DA	N	MOVABLE BRIDGE OPERATOR
0465 71 3	4	\$31,117.50	\$124,470.00	4.000	LS	N	MOVABLE BRIDGE FUNCTIONAL CHECKOUT,PH C
0470 1	4	\$17,672.86	\$222,678.02	12.600	MB	N	TREATED TIMBER, STRUCTURAL
0471 1 1	3	\$19,682.36	\$799,104.00	40.600	MB	N	FENDER SYS,PLASTIC MARINE LUMBER,REINF
0471 1 2	2	\$16,583.52	\$134,326.50	8.100	MB	N	FENDER SYS,PLASTIC MARINE LUMBER, NR
0471 3 2	1	\$943,034.00	\$943,034.00	1.000	LS	N	POLYMERIC FENDER SYSTEM, 41-200 KIP-FT
0506 2	1	\$95.00	\$20,425.00	215.000	LF	N	BRIDGE DRAINAGE PIPE
0506 3	1	\$1,000.00	\$13,000.00	13.000	EA	N	BRIDGE DRAINS

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0508 2 1	2	\$64,408.47	\$579,676.20	9.000	AS	N	MOVABLE BRIDGE GATE, F&I
0508 2 5	2	\$28,200.00	\$141,000.00	5.000	AS	N	MOVABLE BRIDGE GATE, ADJUST/MODIFY/REHAB
0508 2 6	2	\$7,126.00	\$35,630.00	5.000	AS	N	MOVABLE BRIDGE GATE, REMOVE & DISPOSE
0508 3 1	1	\$42,000.00	\$84,000.00	2.000	AS	N	MOVABLE BRIDGE - SIGNAL, F&I
0508 3 5	1	\$7,000.00	\$14,000.00	2.000	AS	N	MOVABLE BRIDGE - SIGNAL,ADJ /MOD/ REHAB
0508 3 6	1	\$1,000.00	\$2,000.00	2.000	AS	N	MOVABLE BRIDGE - SIGNAL, REMOVE & DISPO
0508 4	6	\$194,650.97	\$1,167,905.80	6.000	LS	N	MOVABLE BRIDGE ELECTRICAL EQUIP, REHAB
0508 76 1	1	\$65,000.00	\$65,000.00	1.000	LS	N	MOVABLE BRIDGE-REHAB,SPAN MOTORS,F&I
0508 77 5	1	\$30,000.00	\$30,000.00	1.000	EA	N	MOVABLE BRIDGE-REHAB,PROG LOGIC
0508 78 1	1	\$8,000.00	\$8,000.00	1.000	LS	N	MOVABLE BRIDGE-REHAB,LIMIT SWITCH,F&I
0508 79 1	2	\$60,000.00	\$120,000.00	2.000	EA	N	MOVABLE BRIDGE-REHAB,CONTROL CONSOLE,F&I
0508 80 5	1	\$4,000.00	\$8,000.00	2.000	EA	N	MOVABLE BRIDGE-REHAB,BRAKE SYS,RECOND
0508 82 1	1	\$72,600.00	\$72,600.00	1.000	EA	N	MOVABLE BRIDGE-REHAB,CONTROL PANEL,F&I
0508 83101	1	\$124,317.00	\$248,634.00	2.000	AS	N	MOVABLE BR INTGR DR SYS,F&I,25 KW OR <
0510 1	3	\$55,788.33	\$167,365.00	3.000	LS	N	NAVIGATION LIGHTS- FIXED BRIDGE, SYSTEM
0510 1 4	1	\$7,100.00	\$92,300.00	13.000	EA	N	NAVIGATION LIGHTS- FIXED BRIDGE, REPAIR/
0512 1 1	1	\$70,000.00	\$70,000.00	1.000	LS	N	MOVABLE BRIDGE-CONTROL HOUSE,RENOVATE
0515 1 1	8	\$69.95	\$259,739.87	3,713.000	LF	N	PIPE HANDRAIL - GUIDERAIL, STEEL
0515 1 2	28	\$39.07	\$264,279.85	6,764.000	LF	N	PIPE HANDRAIL - GUIDERAIL, ALUMINUM
0515 2111	3	\$56.13	\$127,816.74	2,277.000	LF	N	PED/BICYCLE RAILING,NS, 42" TYPE 1
0515 2211	8	\$101.82	\$466,631.38	4,583.000	LF	N	PED/BICYCLE RAILING,STL, 42" TYPE 1
0515 2252	1	\$250.00	\$1,500.00	6.000	LF	N	PED/BICYCLE RAILING, STEEL, 43652715201
0515 2311	12	\$66.57	\$528,588.87	7,940.000	LF	N	PED/BICYCLE RAILING, ALUM,42" TYPE 1
0515 2313	1	\$165.00	\$3,630.00	22.000	LF	N	PED/BICYCLE RAILING,ALUM, 42" TYPE 3
0515 2500	2	\$54.15	\$5,902.00	109.000	LF	N	PEDESTRIAN / BICYCLE RAILING, RELOCATE
0515 4 1	9	\$40.73	\$150,523.90	3,696.000	LF	N	BULLET RAIL, SINGLE RAIL
0515 4 2	7	\$44.45	\$207,765.24	4,674.000	LF	N	BULLET RAIL, DOUBLE RAIL
0519 78	7	\$1,056.34	\$70,774.45	67.000	EA	N	BOLLARDS
0520 1 7	67	\$16.46	\$4,707,554.32	286,072.000	LF	N	CONCRETE CURB & GUTTER, TYPE E
0520 1 10	129	\$22.26	\$6,498,073.61	291,948.000	LF	N	CONCRETE CURB & GUTTER, TYPE F
0520 1 12	1	\$26.75	\$108,524.75	4,057.000	LF	N	CONCRETE CURB & GUTTER, TYPE F W/SP GUTT
0520 2 1	6	\$28.23	\$23,094.56	818.000	LF	N	CONCRETE CURB, TYPE A
0520 2 2	10	\$23.74	\$56,753.24	2,391.000	LF	N	CONCRETE CURB, TYPE B
0520 2 4	53	\$22.92	\$520,843.72	22,725.000	LF	N	CONCRETE CURB, TYPE D
0520 2 8	3	\$21.84	\$24,443.00	1,119.000	LF	N	CONCRETE CURB, TYPE RA
0520 3	16	\$32.05	\$75,916.89	2,369.000	LF	N	VALLEY GUTTER- CONCRETE
0520 5 11	22	\$46.94	\$1,080,541.64	23,021.000	LF	N	TRAF SEP CONC-TYPE I, 4' WIDE
0520 5 12	4	\$66.69	\$126,773.10	1,901.000	LF	N	TRAF SEP CONC-TYPE I, 6' WIDE
0520 5 16	3	\$69.97	\$430,707.15	6,156.000	LF	N	TRAF SEP CONC-TYPE I, 8.5' WIDE
0520 5 21	2	\$65.47	\$28,807.01	440.000	LF	N	TRAF SEP CONC - TYPE II, 4' WIDE

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0520 5 22	1	\$65.00	\$38,285.00	589.000	LF	N	TRAF SEP CONC - TYPE II, 6' WIDE
0520 5 41	13	\$40.53	\$284,411.64	7,018.000	LF	N	TRAF SEP CONC-TYPE IV, 4' WIDE
0520 5 42	1	\$55.52	\$26,260.96	473.000	LF	N	TRAF SEP CONC-TYPE IV, 6' WIDE
0520 5 46	3	\$80.01	\$111,215.63	1,390.000	LF	N	TRAF SEP CONC-TYPE IV,8.5' WIDE
0520 5 51	1	\$53.76	\$71,500.80	1,330.000	LF	N	TRAF SEP CONC, TYPE V, 4' WIDE
0520 6	33	\$22.67	\$2,706,497.68	119,392.000	LF	N	SHOULDER GUTTER- CONCRETE
0520 7 1	1	\$77.88	\$44,080.08	566.000	LF	N	GRANITE CURB, FURNISH & INSTALL
0520 7 2	1	\$51.92	\$96,259.68	1,854.000	LF	N	GRANITE CURB, RESET
0520 70	39	\$71.45	\$919,466.71	12,869.000	SY	N	CONCRETE TRAFFIC SEPARATOR, SP- VAR WIDT
0521 1 11	6	\$125.30	\$2,944,126.10	23,497.000	LF	N	MEDIAN CONC BARRIER, 38" HEIGHT
0521 1 12	4	\$209.67	\$2,557,135.00	12,196.000	LF	N	MEDIAN CONC BARRIER, SHORT GRADE SEP
0521 1 13	2	\$365.71	\$1,387,128.14	3,793.000	LF	N	MEDIAN CONC BARRIER, TALL GRADE SEP
0521 1 14	2	\$344.37	\$707,345.80	2,054.000	LF	N	MEDIAN CONC BARRIER, VAR SECT WIDTH
0521 5 4	6	\$159.32	\$299,531.00	1,880.000	LF	N	CONC TRAF RAIL- BRG, 32" VERT FACE
0521 5 12	2	\$64.99	\$88,835.00	1,367.000	LF	N	CONC TRAF RAIL- BRG, 36" MED SING SLOPE
0521 5 13	21	\$89.32	\$3,076,861.10	34,447.000	LF	N	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE
0521 5 22	1	\$450.00	\$221,850.00	493.000	LF	N	CONC TRAF RAIL- BRIDGE, 8' NOISE WALL
0521 6 11	8	\$69.40	\$343,474.68	4,949.000	LF	N	CONC PARAPET, PED/BIKE, 27"
0521 6 12	1	\$4,612.00	\$41,508.00	9.000	LF	N	CONC PARAPET, PED/BIKE, 42"
0521 6 31	2	\$161.10	\$293,200.00	1,820.000	LF	N	CONC PARAPET, RETAINING WALL SYS, 27"
0521 6 32	1	\$254.00	\$153,924.00	606.000	LF	N	CONCRETE PARAPET, RETAINING WALL SYSTEM
0521 8 3	1	\$240.00	\$40,080.00	167.000	LF	N	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP
0521 8 4	2	\$319.39	\$107,954.26	338.000	LF	N	CONC TRAF RAIL BAR,JCT SLAB,42"V SHP
0521 8 7	4	\$198.52	\$6,882,922.00	34,671.000	LF	N	CONC BARRIER, W/JUNCT SL, 36 SS
0521 8 11	1	\$350.00	\$5,181,400.00	14,804.000	LF	N	CONC BARRIER, W/JUNCT SLAB, 8'-NWALL
0521 72 24	1	\$450.00	\$360,900.00	802.000	LF	N	SHLDR CONC BAR WALL, 8' NOISE WALL
0521 72 27	2	\$586.35	\$12,098,662.00	20,634.000	LF	N	SHLDR CONC BAR WALL, 14' NOISE WALL
0521 72 40	15	\$279.90	\$2,448,869.59	8,749.000	LF	N	SHLDR CONC BARRIER,38" OR 44" HEIGHT
0521 72 41	1	\$210.00	\$123,270.00	587.000	LF	N	SHLDR CONC BARRIER, RETAINING SECTION
0521 72 43	4	\$229.57	\$680,217.66	2,963.000	LF	N	SHLDR CONC BARRIER, CURB AND GUTTER BARR
0521 72 56	4	\$455.84	\$640,459.90	1,405.000	LF	N	SHLDR CONC BARRIER,56" PIER PROT
0522 1	132	\$39.27	\$10,833,814.96	275,861.000	SY	N	CONCRETE SIDEWALK AND DRIVEWAYS, 4"
0522 2	142	\$51.72	\$5,761,908.25	111,410.000	SY	N	CONCRETE SIDEWALK AND DRIVEWAYS, 6"
0522 3	2	\$128.72	\$15,833.00	123.000	SY	N	BUS BOARDING PAD- CONCRETE
0522 4	6	\$174.10	\$102,199.38	587.000	SY	N	BUS SHELTER PAD- CONCRETE
0523 1	4	\$93.26	\$515,730.90	5,530.000	SY	N	PATTERNED PAVEMENT, VEHICULAR AREAS
0523 1 3	18	\$68.81	\$1,519,786.91	22,086.000	SY	N	PATTERNED PAVEMENT, VEHIC AREAS- BIKE LA
0523 2	1	\$419.39	\$4,613.29	11.000	SY	N	PATTERNED PAVEMENT, NON-VEHICULAR AREAS
0524 1 1	19	\$37.15	\$861,038.54	23,177.000	SY	N	CONCRETE DITCH PAVT, NR, 3"
0524 1 2	23	\$47.37	\$608,212.93	12,840.000	SY	N	CONCRETE DITCH PAVT, NR, 4"

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0524 1 4	6	\$71.90	\$255,181.50	3,549.000	SY	N	CONCRETE DITCH PAVT, NR, 6"
0524 1 19	2	\$39.57	\$76,561.82	1,935.000	SY	N	CONC DITCH PAVT, 3", REINFORCED
0524 1 29	6	\$65.39	\$107,114.42	1,638.000	SY	N	CONC DITCH PAVT, 4", REINFORCED
0524 1 49	6	\$114.95	\$158,061.70	1,375.000	SY	N	CONC DITCH PAVT, 6", REINFORCED
0524 2 2	7	\$73.40	\$857,995.47	11,690.000	SY	N	CONC SLOPE PAVT, NR, 4"
0524 2 29	1	\$81.00	\$6,804.00	84.000	SY	N	CONC SLOPE PAVT, 4", REINFORCED
0524 3	1	\$550.00	\$9,900.00	18.000	CY	N	CONC CORE DITCH BLOCKS
0526 1 1	5	\$69.59	\$35,281.64	507.000	SY	N	PAVERS, ARCHITECTURAL, ROADWAY
0526 1 2	18	\$100.76	\$202,025.21	2,005.000	SY	N	PAVERS, ARCHITECTURAL, SIDEWALK
0527 2	135	\$27.46	\$1,686,219.51	61,415.000	SF	N	DETECTABLE WARNINGS
0530 1	25	\$514.93	\$1,287,264.50	2,499.900	CY	N	RIPRAP, SAND-CEMENT
0530 3 3	30	\$88.02	\$9,180,552.75	104,305.500	TN	N	RIPRAP- RUBBLE, BANK AND SHORE
0530 3 4	37	\$83.95	\$5,609,320.58	66,818.700	TN	N	RIPRAP, RUBBLE, F&I, DITCH LINING
0530 3 8	1	\$160.60	\$3,693.80	23.000	CY	N	RIPRAP- RUBBLE, REM EXIST & REINSTALL
0530 4 4	1	\$80.00	\$120,640.00	1,508.000	SY	N	ARTICULATING CONC BLOCK REVET SYS, 4"
0530 4 6	4	\$187.90	\$113,115.40	602.000	SY	N	ARTICULATING CONC BLOCK REVET SYS, 6"
0530 4 9	1	\$90.00	\$189,000.00	2,100.000	SY	N	ARTICULATING CONC BLOCK REVET SYS, 9"
0530 5 2	1	\$995.50	\$16,923.50	17.000	SY	N	GABION, 1 FOOT AND GREATER THICKNESS
0530 74	38	\$65.46	\$3,882,380.23	59,311.700	TN	N	BEDDING STONE
0534 72101	4	\$34.04	\$5,813,790.30	170,811.000	SF	N	SOUND/NOISE BARRIER-INC FOUNDATION, PERM
0534 73	1	\$70.00	\$292,320.00	4,176.000	SF	N	PERIMETER WALL
0536 1 0	15	\$21.47	\$110,357.86	5,141.000	LF	N	GUARDRAIL- ROADWAY, GEN/LS TL-2
0536 1 1	71	\$18.44	\$4,132,447.91	224,155.000	LF	N	GUARDRAIL- ROADWAY, GEN TL-3
0536 1 3	11	\$27.10	\$447,446.95	16,512.000	LF	N	GUARDRAIL- ROADWAY, DOUBLE FACE
0536 1 11	4	\$73.94	\$233,199.49	3,154.000	LF	N	GUARDRAIL, ROADWAY, MOD THRIE BEAM
0536 1 12	2	\$82.92	\$3,648.50	44.000	LF	N	GUARDRAIL, ROADWAY, MOD THRIE BEAM DOUBL
0536 5 1	7	\$8.05	\$272,283.25	33,825.000	LF	N	RUB RAIL FOR GUARDRAIL, SINGLE SIDED RUB
0536 5 2	1	\$15.23	\$55,223.98	3,626.000	LF	N	RUB RAIL FOR GUARDRAIL, DOUBLE SIDED RUB
0536 6	17	\$16.88	\$126,355.55	7,486.000	LF	N	PIPE RAIL FOR GUARDRAIL
0536 7 1	4	\$75.79	\$172,882.35	2,281.000	EA	N	SPECIAL GUARDRAIL POST- DEEP POST FOR SL
0536 7 2	17	\$328.95	\$42,105.01	128.000	EA	N	SPECIAL GUARDRAIL POST- SP STEEL POST CM
0536 7 3	20	\$123.32	\$564,075.31	4,574.000	EA	N	SPECIAL GUARDRAIL POST- ENCASED POST SM
0536 7 4	2	\$214.00	\$5,350.00	25.000	EA	N	SPECIAL GUARDRAIL POST- FRANG LEAVE OUT
0536 8 12	8	\$2,774.51	\$52,715.74	19.000	EA	N	APPROACH TRANS CONN TO RIGID BA, F&I, 2
0536 8 13	35	\$2,548.96	\$800,374.39	314.000	EA	N	APPROACH TRANS CONN TO RIGID BA, F&I, 3
0536 73	77	\$2.61	\$355,086.92	135,902.000	LF	N	GUARDRAIL REMOVAL
0536 85 24	73	\$2,830.05	\$1,095,229.09	387.000	EA	N	GUARDRAIL END TREATMENT- PARA APP TERM
0536 85 25	50	\$954.86	\$201,475.58	211.000	EA	N	GUARDRAIL END TREAT- TRAIL AN TYPE II
0536 85 26	8	\$3,059.84	\$33,658.20	11.000	EA	N	GUARDRAIL END TREATMENT- TYPE CRT
0536 85 27	6	\$7,572.23	\$106,011.15	14.000	EA	N	GUARDRAIL END TREAT- DOUB FACE APPR TER

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0538 1	14	\$12.35	\$250,172.99	20,260.000	LF	N	GUARDRAIL RESET
0542 70	2	\$265.79	\$5,050.00	19.000	EA	N	BUMPER GUARDS, CONCRETE
0544 75 1	14	\$20,939.68	\$1,570,476.32	75.000	EA	N	CRASH CUSHION
0546 71 1	3	\$566.21	\$8,493.12	15.000	EA	N	RAISED RUMBLE STRIP SET- PERMANENT
0546 72 1	20	\$1,441.76	\$594,050.73	412.032	GM	N	GROUND-IN RUMBLE STRIPS, 16"
0546 72 2	10	\$1,655.83	\$146,427.94	88.432	GM	N	GROUND-IN RUMBLE STRIPS, 8" CYL
0546 72 3	7	\$971.90	\$110,760.54	113.963	GM	N	GROUND-IN RUMBLE STRIPS, 8" SIN
0548 12	8	\$30.52	\$38,476,673.49	1,260,634.000	SF	N	RET WALL SYSTEM, PERM, EX BARRIER
0548 13	8	\$13.36	\$1,638,706.36	122,696.000	SF	N	RETAINING WALL SYSTEM,TEMP, EXC BAR.
0550 10110	6	\$8.16	\$514,364.95	63,003.000	LF	N	FENCING, TYPE A, 0.0-5.0', STANDARD
0550 10128	1	\$20.00	\$1,880.00	94.000	LF	N	FENCING, TYPE A, 5.1-6.0', RESET EXIST
0550 10148	1	\$26.70	\$3,738.00	140.000	LF	N	FENCING, TYPE A, 7.1-8.0', RESET
0550 10150	3	\$20.38	\$3,627,309.75	177,957.000	LF	N	FENCING, TYPE A, 8.1-10.0', STANDARD
0550 10210	6	\$19.66	\$34,487.05	1,754.000	LF	N	FENCING, TYPE B, 0.0-5.0', STANDARD FEAT
0550 10212	1	\$17.20	\$5,005.20	291.000	LF	N	FENCING, TYPE B, 0.0-5.0', W/ VINYL COAT
0550 10218	1	\$15.00	\$3,675.00	245.000	LF	N	FENCING, TYPE B, 0.0-5.0', RESET EXIST
0550 10220	14	\$17.42	\$2,241,570.95	128,708.000	LF	N	FENCING, TYPE B, 5.1-6.0', STANDARD
0550 10221	3	\$19.93	\$264,625.00	13,279.000	LF	N	FENCING, TYPE B, 5.1-6.0', W/ BARB ATTMT
0550 10222	3	\$15.18	\$280,341.51	18,467.000	LF	N	FENCING, TYPE B, 5.1-6.0, W/ VINYL COAT
0550 10228	3	\$30.01	\$23,645.04	788.000	LF	N	FENCING, TYPE B, 5.1-6.0, RESET EXISTING
0550 10232	1	\$52.00	\$2,236.00	43.000	LF	N	FENCING, TYPE B, 6.1-7.0, W/VINYL COATIN
0550 10240	1	\$55.00	\$2,695.00	49.000	LF	N	FENCING, TYPE B, 7.1-8.0', STANDARD
0550 10248	2	\$34.08	\$31,525.00	925.000	LF	N	FENCING, TYPE B, 7.1-8.0, RESET EXISTING
0550 10315	1	\$100.00	\$342,700.00	3,427.000	LF	N	FENCING, TYPE R, 0-5.0', VERTICAL
0550 10325	1	\$78.75	\$28,980.00	368.000	LF	N	FENCING, TYPE R, 5.1-6.0', VERTICAL
0550 10343	1	\$237.00	\$84,846.00	358.000	LF	N	FENCING, TYPE R, 7.1-8.0, W/FULL ENCLOS
0550 10344	3	\$132.06	\$417,439.00	3,161.000	LF	N	FENCING, TYPE R, 7.1-8.0, W/PART ENCLOS
0550 10353	1	\$173.00	\$162,966.00	942.000	LF	N	FENCING, TYPE R, 8.1-10', W/FULL ENCLOS
0550 10420	1	\$100.00	\$800.00	8.000	LF	N	FENCING, WOOD, 5.1-6.0'
0550 10918	1	\$20.00	\$1,880.00	94.000	LF	N	FENCING,SPECIAL TYP, 0.0-5.0', RESET EXI
0550 60112	3	\$1,118.00	\$38,012.00	34.000	EA	N	FENCE GATE,TYP A, SGL, 6.1-12' OPENING
0550 60123	3	\$2,281.22	\$47,905.69	21.000	EA	N	FENCE GATE,TYP A, DBL, 12.1-18' OPENING
0550 60126	1	\$4,355.87	\$4,355.87	1.000	EA	N	FENCE GATE,TYP A, DBL, 24.1-30.' OPENING
0550 60133	1	\$4,100.00	\$16,400.00	4.000	EA	N	FENCE GATE,TYP A, SLIIDE/CAN, 12.1-18.'
0550 60135	1	\$4,400.00	\$17,600.00	4.000	EA	N	FENCE GATE,TYP A, SLIDE/CAN, 20.1-24.0'
0550 60211	5	\$1,215.89	\$10,943.00	9.000	EA	N	FENCE GATE,TYP B,SGL, 0- 6.0' OPENING
0550 60212	3	\$1,267.67	\$7,606.00	6.000	EA	N	FENCE GATE,TYP B,SGL,6.1-12.0' OPENING
0550 60213	1	\$1,000.00	\$1,000.00	1.000	EA	N	FENCE GATE,TYP B, SGL,12.1-18.0' OPENING
0550 60222	3	\$1,916.67	\$5,750.00	3.000	EA	N	FENCE GATE,TYP B, DBL, 6.1-12.0' OPENING
0550 60224	1	\$1,977.00	\$5,931.00	3.000	EA	N	FENCE GATE,TYP B, DBL,18.1-20.0' OPENING

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0550 60225	1	\$1,000.00	\$1,000.00	1.000	EA	N	FENCE GATE,TYP B, DBL, 20.1-24' OPENING
0550 60232	4	\$2,654.32	\$196,420.00	74.000	EA	N	FENCE GATE,TYP B,SLIDE/CANT,6.1-12'OPEN
0550 60233	1	\$3,005.33	\$3,005.33	1.000	EA	N	FENCE GATE,TYP B,SLIDE/CANT,12.1-18'OPEN
0550 60235	4	\$4,185.00	\$167,400.00	40.000	EA	N	FENCE GATE,TYP B,SLIDE/CANT,20.1-24'OPEN
0550 60237	1	\$8,230.00	\$8,230.00	1.000	EA	N	FENCE GATE,TYP B,SLI CANT, > THAN 30'
0550 60400	1	\$1,500.00	\$1,500.00	1.000	EA	N	FENCE GATE, RESET EXISTING
0550 60513	1	\$4,500.00	\$18,000.00	4.000	EA	N	FENCE GATE,METAL, SGL,12.1-18.0' OPENING
0561 1	13	\$1,440.44	\$8,620,163.92	5,984.400	TN	N	COATING EXISTING STRUCTURAL STEEL
0561 2	2	\$65.29	\$349,300.00	5,350.000	SF	N	COATING EXISTING STRUCTURAL STEEL
0570 1 1	35	\$1.40	\$6,689,644.73	4,771,427.000	SY	N	PERFORMANCE TURF
0570 1 2	193	\$2.61	\$14,054,439.16	5,387,798.000	SY	N	PERFORMANCE TURF, SOD
0571 1 11	6	\$4.53	\$45,616.25	10,065.000	SY	N	PLASTIC EROSION MAT, TRM, TYPE 1
0571 1 12	3	\$6.95	\$38,617.00	5,555.000	SY	N	PLASTIC EROSION MAT, TRM, TYPE 2
0571 1 13	2	\$6.95	\$16,667.76	2,397.000	SY	N	PLASTIC EROSION MAT, TRM, TYPE 3
0580 1 1	9	\$42,720.15	\$469,921.60	11.000	LS	N	LANDSCAPE COMPLETE- SMALL PLANTS
0580 1 2	9	\$44,524.72	\$400,722.50	9.000	LS	N	LANDSCAPE COMPLETE- LARGE PLANTS
0580 2 1	2	\$3,779.36	\$22,676.16	6.000	EA	N	LANDSCAPE- RELOCATE TREE, PALMS <14'
0580 2 2	7	\$2,353.08	\$70,592.27	30.000	EA	N	LANDSCAPE- RELOCATE TREE, PALMS >14'
0580 2 4	2	\$1,008.41	\$18,151.30	18.000	EA	N	LANDSCAPE- RELOCATE TREE, TREES <5"
0580 2 5	2	\$1,331.53	\$62,582.08	47.000	EA	N	LANDSCAPE- RELOCATE TREE, TREES >5"
0580 2 7	2	\$603.19	\$14,476.44	24.000	EA	N	LANDSCAPE- RELOCATE TREE, PALMS <14' SAB
0580 2 8	3	\$527.58	\$19,520.60	37.000	EA	N	LANDSCAPE- RELOCATE TREE, PALMS >14' SAB
0581 1 1	1	\$925.00	\$58,275.00	63.000	EA	N	RELOCATE TREES & PALMS, PALM <14'
0581 1 2	1	\$955.00	\$307,510.00	322.000	EA	N	RELOCATE TREES & PALMS, PALMS >=14'
0581 1 3	1	\$540.00	\$21,060.00	39.000	EA	N	RELOCATE TREES & PALMS, MULTI-TRUNK
0581 1 4	1	\$800.00	\$800.00	1.000	EA	N	RELOCATE TREES & PALMS, TREES <5" DBH
0581 1 5	1	\$1,000.00	\$1,000.00	1.000	EA	N	RELOCATE TREES & PALMS, TREES <=5" DBH
0581 1 8	1	\$300.00	\$600.00	2.000	EA	N	RELOCATE TREES & PALMS, >=14', SABAL
0590 1	2	\$44,427.50	\$88,855.00	2.000	EA	N	LANDSCAPE IRRIGATION SYSTEM
0590 1 9	1	\$596.67	\$5,370.03	9.000	EA	N	LANDSCAPE IRRIGATION SYSTEM- REP VALVE
0590 70	5	\$17,268.00	\$86,340.00	5.000	LS	N	IRRIGATION SYSTEM
0590 70 1	10	\$9,473.48	\$94,734.80	10.000	LS	N	IRRIGATION SYSTEM REPAIRS
0630 2 11	131	\$6.19	\$6,243,187.14	1,009,141.000	LF	N	CONDUIT, F& I, OPEN TRENCH
0630 2 12	146	\$18.74	\$10,462,795.92	558,380.000	LF	N	CONDUIT, F& I, DIRECTIONAL BORE
0630 2 14	32	\$16.63	\$2,115,524.68	127,225.000	LF	N	CONDUIT, F& I, ABOVEGROUND
0630 2 15	20	\$23.12	\$439,993.05	19,034.000	LF	N	CONDUIT, F& I, BRIDGE MOUNT
0630 2 16	16	\$10.76	\$1,969,129.16	183,013.000	LF	N	CONDUIT, F& I, EMBEDDED- BARR./RAILINGS
0630 2 65	2	\$6.75	\$3,833.66	568.000	LF	N	CONDUIT, REMOVE, BRIDGE MOUNT
0632 7 1	89	\$5,069.50	\$1,358,627.30	268.000	PI	N	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL
0632 7 2	23	\$5.77	\$96,984.59	16,812.000	LF	N	SIGNAL CABLE, REPAIR/REPL-FUR & INSTALL

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0632 7 4	1	\$2,118.39	\$2,118.39	1.000	PI	N	SIGNAL CABLE, ADJUST
0632 7 6	45	\$749.19	\$102,639.32	137.000	PI	N	SIGNAL CABLE, REMOVE- INTERSECTION
0632 7 7	3	\$1.11	\$1,324.70	1,195.000	LF	N	SIGNAL CABLE, REMOVE- OUTSIDE OF INTERSE
0633 1111	2	\$4.25	\$4,330.30	1,018.000	LF	N	FIBER OPTIC CABLE, F&I, OVH,2-12
0633 1112	2	\$4.85	\$67,263.60	13,865.000	LF	N	FIBER OPTIC CABLE, F&I,OVH,13-48
0633 1113	3	\$2.52	\$99,095.92	39,248.000	LF	N	FIBER OPTIC CABLE,F&I, OVH,49-96
0633 1114	1	\$2.60	\$293.80	113.000	LF	N	FIBER OPTIC CABLE,F&I, OVH,97-144
0633 1121	26	\$2.28	\$169,337.48	74,256.000	LF	N	FIBER OPTIC CABLE, F&I, UG,2-12
0633 1122	17	\$2.48	\$185,011.57	74,484.000	LF	N	FIBER OPTIC CABLE, F&I, UG,13-48
0633 1123	18	\$2.50	\$1,230,589.26	492,777.000	LF	N	FIBER OPTIC CABLE, F&I, UG,49-96
0633 1124	5	\$3.38	\$322,502.80	95,482.000	LF	N	FIBER OPTIC CABLE, F&I, UG,97-144
0633 1410	1	\$4.00	\$3,000.00	750.000	LF	N	FIBER OPTIC CABLE, REL, OV
0633 1420	13	\$4.89	\$22,374.44	4,575.000	LF	N	FIBER OPTIC CABLE, REL, UG
0633 1610	3	\$1.66	\$7,096.06	4,271.000	LF	N	FIBER OPTIC CABLE, REM, OV
0633 1620	15	\$.67	\$118,717.77	177,029.000	LF	N	FIBER OPTIC CABLE, REM, UG
0633 2 31	31	\$39.39	\$225,955.94	5,736.000	EA	N	FIBER OPTIC CONNECTION, INSTALL, SPLICE
0633 2 32	19	\$63.12	\$256,007.20	4,056.000	EA	N	FIBER OPTIC CONNECTION, INSTALL, TERM
0633 3 11	27	\$809.91	\$182,230.78	225.000	EA	N	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE
0633 3 12	22	\$71.68	\$27,166.38	379.000	EA	N	FIBER OPTIC CONN HDWR, SPLICE TRAY
0633 3 13	8	\$54.24	\$33,138.92	611.000	EA	N	FIBER OPTIC CONN HDWR, PRETERM CONNECT A
0633 3 14	17	\$277.29	\$56,566.83	204.000	EA	N	FIBER OPTIC CONN HDWR, BUFFER TUBE FAN O
0633 3 15	19	\$1,353.39	\$207,068.14	153.000	EA	N	FIBER OPTIC CONN HDWR, PRETERM PATCH PAN
0633 3 16	21	\$1,735.13	\$244,653.89	141.000	EA	N	FIBER OPTIC CONN HDWR, PATCH PANEL- FIE
0633 3 17	8	\$153.99	\$10,625.60	69.000	EA	N	FIBER OPTIC CONN HDWR, CONNECTOR PANEL
0633 3 44	1	\$60.39	\$120.78	2.000	EA	N	FIBER OPTIC CONNECTION HARDWARE, REL
0633 3 45	2	\$879.03	\$7,032.27	8.000	EA	N	FIBER OPTIC CONN HDWR, REL, PATCH PANEL
0633 3 46	3	\$326.72	\$1,633.59	5.000	EA	N	FIBER OPTIC CONN HDWR, REL, PP FT
0633 3 51	7	\$510.82	\$13,792.26	27.000	EA	N	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE
0633 3 52	3	\$196.92	\$1,378.45	7.000	EA	N	FIBER OPTIC CONN HDWR, ADJ, SPL TRAY
0633 3 56	2	\$466.92	\$2,801.50	6.000	EA	N	FIBER OPTIC CONN HDWR, ADJ, PATCH PANEL
0633 3 57	1	\$189.39	\$189.39	1.000	EA	N	FIBER OPTIC CONN HW, ADJ/MOD, CON PAN
0633 4 1	2	\$3.46	\$11,341.77	3,277.000	LF	N	SIGNALS COMMUNIC- TWISTED PAIR CABLE
0633 4 4	1	\$3.30	\$2,006.40	608.000	LF	N	SIGNALS COMMUNIC- TWISTED PAIR C, RELOCA
0633 4 6	3	\$.66	\$1,088.20	1,650.000	LF	N	SIGNALS COMMUNIC- TWISTED PAIR C, REMOVE
0633 8 1	9	\$4.06	\$89,823.68	22,151.000	LF	N	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I
0633 8 4	1	\$1.80	\$18.00	10.000	LF	N	MULTI-CONDUCTOR COMMUNICATION CABLE, REL
0633 8 6	4	\$1.28	\$3,750.97	2,934.000	LF	N	MULTI-CONDUCTOR COMMUNICATION CABLE, REM
0634 4142	1	\$2,700.00	\$2,700.00	1.000	PI	N	SPAN WIRE ASSEMBLY, F&I, SINGLE PT, DIA
0634 4152	2	\$6,961.53	\$27,846.12	4.000	PI	N	SPAN WIRE ASSEMBLY, F&I, TWO PT, DIAG
0634 4153	11	\$5,853.22	\$93,651.53	16.000	PI	N	SPAN WIRE ASSEM, F&I, TWO PT, BOX/DROP B

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0634 4154	1	\$6,000.00	\$6,000.00	1.000	PI	N	SPAN WIRE ASSEMBLY, F&I, TWO PT, OTHER
0634 4600	4	\$1,208.54	\$7,251.22	6.000	PI	N	SPAN WIRE ASSEMBLY, REMOVE- POLES REMAIN
0634 5 1	4	\$36.42	\$4,734.72	130.000	LF	N	FIBERGLASS INSULATOR, FURNISH & INSTALL
0635 2 11	151	\$681.26	\$8,287,469.66	12,165.000	EA	N	PULL & SPLICE BOX, F&I, 13" x 24"
0635 2 12	47	\$1,301.23	\$1,025,373.16	788.000	EA	N	PULL & SPLICE BOX, F&I, 24" X 36"
0635 2 13	24	\$2,570.55	\$377,870.13	147.000	EA	N	PULL & SPLICE BOX, F&I, 30" X 60" OR 36"
0635 2 30	5	\$986.14	\$24,653.51	25.000	EA	N	PULL & SPLICE BOX, INSTALL
0635 3 11	6	\$477.99	\$70,264.58	147.000	EA	N	JUNCTION BOX, FURNISH & INSTALL, AERIAL
0635 3 12	11	\$638.46	\$132,162.16	207.000	EA	N	JUNCTION BOX, FURNISH & INSTALL, MOUNTED
0635 3 13	15	\$356.52	\$395,023.60	1,108.000	EA	N	JUNCTION BOX, FURNISH & INSTALL, EMBED
0639 1111	4	\$1,794.32	\$16,148.84	9.000	AS	N	ELECTRICAL POWER SRV,F&I,OH,M,FURNISHED
0639 1112	13	\$2,130.03	\$53,250.74	25.000	AS	N	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON
0639 1113	2	\$1,066.42	\$2,132.83	2.000	AS	N	ELECTRICAL POWER SRV,F&I, OH, M NOT REQ
0639 1121	13	\$2,572.73	\$138,927.38	54.000	AS	N	ELECTRICAL POWER SRV,F&I, UG,FUR BY POWE
0639 1122	54	\$2,139.54	\$434,327.57	203.000	AS	N	ELECTRICAL POWER SRV,F&I, UG,PUR CONT
0639 1123	7	\$2,028.36	\$16,226.91	8.000	AS	N	ELECTRICAL POWER SRV,F&I, UG,PUR,NOT REQ
0639 1420	5	\$1,500.74	\$9,004.43	6.000	AS	N	ELECTRICAL POWER SRV,REL UND
0639 1610	12	\$402.48	\$10,464.36	26.000	AS	N	ELECTRICAL POWER SRV,REM OHD
0639 1620	10	\$358.96	\$6,102.26	17.000	AS	N	ELECTRICAL POWER SRV,REM UND
0639 2 1	78	\$5.55	\$1,338,307.26	241,181.000	LF	N	ELECTRICAL SERVICE WIRE, F&I
0639 2 6	20	\$8.89	\$54,872.26	61,383.000	LF	N	ELECTRICAL SERVICE WIRE, REMOVE
0639 3 11	32	\$1,419.04	\$290,902.53	205.000	EA	N	ELEC SERV DISCON, F&I, POLE MNT
0639 3 12	4	\$2,571.50	\$128,574.76	50.000	EA	N	ELEC SERV DISCON, F&I, CABINET
0639 3 60	14	\$150.68	\$12,657.30	84.000	EA	N	ELEC SERV DISCON, REMOVE
0639 4 7	1	\$981.99	\$1,963.98	2.000	EA	N	EMERGENCY GENERATOR- HARNESS FOR CAB
0639 6 1	5	\$1,753.33	\$122,733.17	70.000	EA	N	ELECTRICAL POWER SERVICE- TRANSF, F&I
0639 6 2	1	\$987.50	\$44,437.50	45.000	EA	N	ELECTRICAL POWER SERVICE- TRANSF, REPLAC
0641 2 11	12	\$1,384.48	\$29,074.01	21.000	EA	N	PREST CNC POLE,F&I,TYP P-II,PEDESTAL
0641 2 12	67	\$1,318.47	\$304,567.65	231.000	EA	N	PREST CNC POLE,F&I,TYP P-II SRV POLE
0641 2 13	6	\$4,851.35	\$213,459.56	44.000	EA	N	PREST CNC POLE,F&I,TYP P-III
0641 2 14	1	\$6,983.00	\$6,983.00	1.000	EA	N	PREST CNC POLE,F&I,TYP P-IV
0641 2 16	1	\$11,293.07	\$45,172.28	4.000	EA	N	PREST CNC POLE,F&I,TYP P-VI
0641 2 18	6	\$10,745.08	\$322,352.40	30.000	EA	N	PREST CNC POLE,F&I,TYP P-VIII
0641 2 19	1	\$1,150.00	\$3,450.00	3.000	EA	N	PREST CNC POLE,F&I, CUSTOM DESIGN
0641 2 60	18	\$500.99	\$44,588.10	89.000	EA	N	PREST CNC POLE, REMOVE
0641 2 70	15	\$3,866.82	\$402,149.59	104.000	EA	N	PREST CNC POLE, REMOVE SHALLOW
0641 2 80	19	\$4,098.39	\$331,969.56	81.000	EA	N	PREST CNC POLE, REMOVE COMPLETE
0641 3163	3	\$22,576.30	\$135,457.79	6.000	EA	N	CONCRETE CCTV POLE, FUR & INS W/LOW
0641 3169	3	\$18,929.47	\$416,448.44	22.000	EA	N	CONCRETE CCTV POLE, FUR & INS W/LOW
0641 3175	3	\$20,948.38	\$460,864.44	22.000	EA	N	CONCRETE CCTV POLE, FUR & INS W/LOW

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0641 3180	2	\$21,190.49	\$42,380.98	2.000	EA	N	CONCRETE CCTV POLE, FUR & INS W/LOW
0641 3186	2	\$19,914.75	\$99,573.76	5.000	EA	N	CONCRETE CCTV POLE, FUR & INS W/LOW
0641 3800	1	\$1,879.00	\$15,032.00	8.000	EA	N	CONCRETE CCTV POLE, REMOVE
0643600	1	\$332.05	\$1,660.25	5.000	EA	N	STRAIN POLE, WOOD, REMOVE
0646 1 11	92	\$1,390.34	\$1,679,527.29	1,208.000	EA	N	ALUMINUM SIGNALS POLE, PEDESTAL
0646 1 12	28	\$1,054.34	\$168,694.25	160.000	EA	N	ALUMINUM SIGNALS POLE, PED DETECT POST
0646 1 40	13	\$1,296.47	\$40,190.67	31.000	EA	N	ALUMINUM SIGNALS POLE, RELOCATE
0646 1 60	67	\$236.99	\$89,346.56	377.000	EA	N	ALUMINUM SIGNALS POLE, REMOVE
0646 2112	1	\$2,600.00	\$2,600.00	1.000	EA	N	ALUMINUM POLE- INDEX 695-001, F&I, 12'
0646 2600	1	\$1,042.78	\$2,085.56	2.000	EA	N	ALUMINUM POLE- INDEX 17900, REMOVE
0649 1 16	1	\$33,500.00	\$134,000.00	4.000	EA	N	STEEL STRAIN POLE, F&I, TYPE PS- IX
0649 1 17	4	\$42,585.71	\$596,200.00	14.000	EA	N	STEEL STRAIN POLE, F&I, TYPE PS- X
0649 1 61	1	\$9,752.00	\$9,752.00	1.000	EA	N	STEEL STRAIN POLE, REMOVE PEDESTAL OR SE
0649 1 62	1	\$1,897.00	\$13,279.00	7.000	EA	N	STEEL STRAIN POLE, REMOVE TYPE PS POLE
0649 21 1	17	\$30,259.33	\$695,964.65	23.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 30'
0649 21 3	26	\$34,275.21	\$2,227,888.59	65.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 40'
0649 21 4	1	\$35,741.06	\$107,223.18	3.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'
0649 21 5	2	\$45,981.19	\$183,924.76	4.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 40'- 40'
0649 21 6	25	\$39,707.85	\$1,945,684.43	49.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 50'
0649 21 7	1	\$43,131.83	\$43,131.83	1.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 50'- 30'
0649 21 8	2	\$53,922.21	\$161,766.63	3.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 50'- 40'
0649 21 9	6	\$57,621.84	\$345,731.04	6.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 50'- 50'
0649 21 10	31	\$49,871.70	\$3,141,917.04	63.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 60'
0649 21 12	5	\$57,569.00	\$402,982.99	7.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 60'- 40'
0649 21 13	4	\$62,814.20	\$251,256.81	4.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 60'- 50'
0649 21 14	2	\$63,499.46	\$126,998.91	2.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 60'- 60'
0649 21 15	25	\$47,098.00	\$2,496,194.15	53.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 70'
0649 21 17	3	\$61,695.53	\$185,086.60	3.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 70'- 40'
0649 21 18	5	\$58,381.21	\$350,287.24	6.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 70'- 50'
0649 21 19	3	\$66,146.50	\$264,586.01	4.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 70-60
0649 21 20	3	\$74,422.89	\$223,268.68	3.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 70-70
0649 21 21	27	\$57,992.20	\$3,943,469.47	68.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 78'
0649 21 24	1	\$55,163.22	\$55,163.22	1.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 78'-50'
0649 21 25	2	\$60,209.71	\$120,419.41	2.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 78'-60'
0649 21 26	2	\$212,007.09	\$636,021.27	3.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 78-70
0649 21 27	2	\$73,720.32	\$147,440.64	2.000	EA	N	STEEL MAST ARM ASSEMBLY, F&I, 78-78
0649 26 3	26	\$3,060.42	\$382,552.91	125.000	EA	N	STEEL MAST ARM ASSEMBLY, REMOVE
0649 26 5	12	\$6,081.87	\$231,111.18	38.000	EA	N	STEEL MAST ARM ASSEMBLY, REMOVE
0649 26 7	1	\$3,000.00	\$3,000.00	1.000	EA	N	STEEL MAST ARM ASSEMBLY, REMOVE
0650 1 14	69	\$949.67	\$1,359,934.18	1,432.000	AS	N	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0650 1 15	3	\$1,664.37	\$14,979.31	9.000	AS	N	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 2-4 W
0650 1 16	23	\$1,164.39	\$135,068.93	116.000	AS	N	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W
0650 1 17	1	\$3,430.00	\$6,860.00	2.000	AS	N	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 2-4 W
0650 1 18	14	\$1,366.23	\$112,030.81	82.000	AS	N	VEH TRA SIGNAL,F&I ALUMINUM, 5 S STR 1 W
0650 1 19	19	\$1,596.99	\$99,013.14	62.000	AS	N	VEH TRAF SIGNAL,F&I ALUMINUM, 5 S CL 1 W
0650 1 24	2	\$959.87	\$42,234.32	44.000	AS	N	VEH TRAF SIGNAL,F&I POLY W/AL, 3 S
0650 1 26	1	\$1,156.32	\$2,312.64	2.000	AS	N	VEH TRAF SIGNAL,F&I POLY W/AL, 4 S
0650 1 34	6	\$946.90	\$64,388.89	68.000	AS	N	VEH TRAF SIGNAL,F&I POLYCARBONA, 3 S 1 W
0650 1 36	4	\$1,141.60	\$9,132.80	8.000	AS	N	VEH TRAF SIGNAL,F&I POLYCARBON, 4 S 1 W
0650 1 38	1	\$1,725.00	\$5,175.00	3.000	AS	N	VEH TRAF SIGNAL, F&I POLYCARB, 5 SEC, 1W
0650 1 39	2	\$1,505.20	\$6,020.80	4.000	AS	N	VEH TRAF SIGNAL, F&I, POLY, 5 SEC, 1 W
0650 1 44	1	\$3,560.00	\$14,240.00	4.000	AS	N	VEH TRAF SIGNAL,F&I PROGRAM, 3 S 1 W
0650 1 48	1	\$5,850.00	\$11,700.00	2.000	AS	N	VEH TRAF SIGNAL, F&I, 5S, 1 W PROG
0650 1 60	19	\$100.89	\$21,691.96	215.000	AS	N	VEH TRAF SIGNAL, REMOVE- POLES TO REMAIN
0650 1 70	4	\$643.14	\$9,003.90	14.000	AS	N	VEHICULAR TRAFFIC SIGNAL, RELOCATE
0650 2102	11	\$248.37	\$39,739.44	160.000	EA	N	VEHIC SIGNAL AUX, REP/RETROFIT- F&I, BAC
0653 1 11	93	\$691.20	\$822,532.87	1,190.000	AS	N	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY
0653 1 12	52	\$1,207.29	\$248,701.20	206.000	AS	N	PEDESTRIAN SIGNAL, F&I LED COUNT, 2 WAYS
0653 1 40	6	\$354.79	\$4,257.46	12.000	AS	N	PEDESTRIAN SIGNAL, RELOCATE
0653 1 60	35	\$84.98	\$24,814.51	292.000	AS	N	PEDESTRIAN SIGNAL, REMOVE
0654 2 11	1	\$4,546.26	\$27,277.56	6.000	AS	N	RECT RAPID FLASH BCN, F&I AC, 1 SIGN
0654 2 12	1	\$10,560.00	\$42,240.00	4.000	AS	N	RECT RAPID FLASH BEACON, F&I AC, BB SIGN
0654 2 21	2	\$6,114.97	\$110,069.46	18.000	AS	N	RECT RAPID FLASH BEACON, F&I SOL, 1 SIGN
0654 3 10	1	\$1,151.58	\$20,728.44	18.000	AS	N	PEDESTRIAN HYBRID BEACON, F&I, COMP
0659 1102	1	\$610.00	\$1,220.00	2.000	EA	N	MOUNTING ASSEMBLY, REP/REPLACE/RETRO- SP
0660 1103	3	\$843.69	\$14,342.80	17.000	EA	N	LOOP DETECTOR INDUCTIVE, F&I, TYPE 3
0660 1104	2	\$247.50	\$1,980.00	8.000	EA	N	LOOP DETECTOR INDUCTIVE, F&I, TYPE 4
0660 1105	2	\$326.36	\$7,180.00	22.000	EA	N	LOOP DETECTOR INDUCTIVE, F&I, TYPE 5
0660 1106	2	\$322.00	\$1,610.00	5.000	EA	N	LOOP DETECTOR INDUCTIVE, F&I, TYPE 6
0660 1109	19	\$207.67	\$46,103.36	222.000	EA	N	LOOP DETECTOR INDUCTIVE, F&I, TYPE 9
0660 1110	24	\$206.61	\$69,421.42	336.000	EA	N	LOOP DETECTOR INDUCTIVE, F&I, TYPE 10
0660 1111	1	\$350.00	\$350.00	1.000	EA	N	LOOP DETECTOR INDUCTIVE, F&I, TYPE 11
0660 1600	11	\$60.68	\$23,058.03	380.000	EA	N	LOOP DETECTOR INDUCTIVE, REMOVE
0660 2101	17	\$853.46	\$157,036.11	184.000	AS	N	LOOP ASSEMBLY- F&I, TYPE A
0660 2102	32	\$724.22	\$535,197.46	739.000	AS	N	LOOP ASSEMBLY, F&I, TYPE B
0660 2106	53	\$882.02	\$785,881.86	891.000	AS	N	LOOP ASSEMBLY, F&I, TYPE F
0660 3 11	14	\$1,268.02	\$153,430.44	121.000	EA	N	VEHICLE DETECTION SYSTEM- MICRO,F&I, CAB
0660 3 12	14	\$7,723.26	\$1,227,998.65	159.000	EA	N	VEHICLE DETECTION SYSTEM- MICRO,F&I, ABO
0660 3 41	3	\$471.97	\$2,831.83	6.000	EA	N	VEHICLE DETECTION SYS- MICR, REL CAB EQU
0660 3 42	2	\$1,436.47	\$4,309.40	3.000	EA	N	VEHICLE DETECTION SYSTEM- MICRO,REL,ABOV

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0660 3 52	1	\$991.00	\$5,946.00	6.000	EA	N	VEHICLE DETECTION SYSTEM- MICRO,A&J,ABOV
0660 3 60	3	\$328.07	\$10,170.15	31.000	EA	N	VEHICLE DETECTION SYSTEM- MICRO,REM,SYST
0660 4 11	47	\$7,574.45	\$1,893,612.60	250.000	EA	N	VEHICLE DETECTION SYSTEM- VIDEO, CABINET
0660 4 12	48	\$4,027.59	\$1,888,941.10	469.000	EA	N	VEHICLE DETECTION SYSTEM- VIDEO, ABOVE G
0660 4 42	6	\$2,007.47	\$32,119.44	16.000	EA	N	VEHICLE DETECTION SYSTEM- VIDEO, ABOVE G
0660 4 51	4	\$1,133.77	\$17,006.60	15.000	EA	N	VEHICLE DETECTION SYSTEM- VIDEO, CABINET
0660 4 52	3	\$1,164.79	\$18,636.60	16.000	EA	N	VEHICLE DETECTION SYSTEM- VIDEO, ABOVE G
0660 4 60	6	\$184.59	\$3,691.81	20.000	EA	N	VEHICLE DETECTION SYSTEM- VIDEO, REMOVE
0660 5 13	1	\$1,104.95	\$78,451.45	71.000	EA	N	VEHICLE DETECTION SYSTEM- W MAG, IN-ROAD
0660 5 51	1	\$980.85	\$3,923.40	4.000	EA	N	VEHICLE DETECTION SYSTEM- W MAG, CAB EQU
0660 5 60	1	\$387.10	\$27,484.10	71.000	EA	N	VEHICLE DETECTION SYSTEM- W MAG, REMOVE
0660 6121	11	\$2,316.37	\$164,462.38	71.000	EA	N	VEHICLE DETECTION SYSTEM- AVI B,F&I, CAB
0660 6122	11	\$6,062.80	\$430,458.50	71.000	EA	N	VEHICLE DETECTION SYSTEM- AVI B,F&I, ABO
0660 6421	1	\$530.64	\$1,061.28	2.000	EA	N	VEHICLE DETECTION SYSTEM- AVI B, REL
0660 6422	3	\$813.76	\$3,255.04	4.000	EA	N	VEHICLE DETECTION SYSTEM- AVI B, REL
0660 6600	3	\$336.65	\$13,466.00	40.000	EA	N	VEHICLE DETECTION SYSTEM- AVI REMOVE
0663 1111	9	\$4,762.30	\$80,959.17	17.000	EA	N	SIGNAL PRIO & PREEMP, F&I, OPT,CAB E
0663 1112	8	\$1,726.22	\$62,144.06	36.000	EA	N	SIGNAL PRIO & PREEMP, F&I, OPT,DETEC
0663 1121	9	\$6,046.78	\$302,339.11	50.000	EA	N	SIGNAL PRIO & PREEMP, F&I, GPS, REPLACE
0663 1122	10	\$5,299.57	\$307,375.32	58.000	EA	N	SIGNAL PRIO & PREEMP, F&I, GPS, DETE
0663 1400	1	\$850.00	\$11,050.00	13.000	EA	N	SIGNAL PRIO & PREEMP, RELOCATE
0663 1600	4	\$360.32	\$12,971.51	36.000	EA	N	SIGNAL PRIO & PREEMP, REMOVE
0665 1 11	85	\$243.36	\$353,851.95	1,454.000	EA	N	PEDESTRIAN DETECTOR, F&I, STANDARD
0665 1 12	15	\$1,483.84	\$229,994.96	155.000	EA	N	PEDESTRIAN DETECTOR, F&I, ACCESSIBLE
0665 1 40	5	\$122.83	\$1,596.75	13.000	EA	N	PEDESTRIAN DETECTOR, RELOCATE
0665 1 50	5	\$286.61	\$8,598.22	30.000	EA	N	PEDESTRIAN DETECTOR, ADJUST/MODIFY
0665 1 60	38	\$51.23	\$17,419.19	340.000	EA	N	PEDESTRIAN DETECTOR, REMOVE
0670 5110	18	\$26,621.62	\$1,544,054.09	58.000	AS	N	TRAF CNTL ASSEM, F&I, NEMA
0670 5111	20	\$29,594.66	\$976,623.88	33.000	AS	N	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT
0670 5112	4	\$23,024.91	\$184,199.29	8.000	AS	N	TRAF CNTL ASSEM, F&I, NEMA, 2 PREEMPT
0670 5140	9	\$29,938.07	\$748,451.80	25.000	AS	N	TRAF CNTL ASSEM, F&I, MODEL 2070
0670 5141	3	\$31,982.15	\$127,928.60	4.000	AS	N	TRAF CNTL ASSEM, F&I, 2070, 1 PREEMPT
0670 5142	1	\$33,562.27	\$33,562.27	1.000	AS	N	TRAF CNTL ASSEM, F&I, 2070, 2 PREEMPT
0670 5300	1	\$3,101.02	\$3,101.02	1.000	AS	N	TRAF CNTL ASSEM, INSTALL
0670 5400	67	\$1,732.54	\$441,796.66	255.000	AS	N	TRAF CNTL ASSEM, MODIFY
0670 5500	2	\$4,025.77	\$8,051.53	2.000	AS	N	TRAF CNTL ASSEM, RELOCATE
0670 5600	45	\$561.54	\$61,208.31	109.000	AS	N	TRAF CNTL ASSEM, REMOVE
0671 2 11	2	\$7,309.95	\$365,497.44	50.000	EA	N	TRAFFIC CONTROLLER, F&I, NEMA
0671 2 40	3	\$3,357.90	\$184,684.29	55.000	EA	N	TRAFFIC CONTROLLER, MODIFY
0671 2 50	1	\$940.00	\$940.00	1.000	EA	N	TRAFFIC CONTROLLER, RELOCATE

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0671 2 60	3	\$358.34	\$18,633.89	52.000	EA	N	TRAFFIC CONTROLLER, REMOVE
0676 1115	1	\$24,667.00	\$24,667.00	1.000	EA	N	TRAFFIC SIGL CONTR CAB, F&I, NEMA UW S 5
0676 1500	2	\$367.05	\$34,870.00	95.000	EA	N	TRAFFIC SIGNAL CONTR CAB, ADJUST/MODIFY
0676 2111	2	\$7,203.23	\$57,625.80	8.000	EA	N	ITS CABINET- F&I, POLE, 336
0676 2122	5	\$7,544.23	\$656,347.80	87.000	EA	N	ITS CABINET- F&I, POLE, 336S
0676 2123	2	\$6,856.29	\$47,994.01	7.000	EA	N	ITS CAB, F&I, POLE W/SUN, 24'X66'X30'
0676 2131	1	\$7,107.00	\$7,107.00	1.000	EA	N	ITS CABINET- F&I, BASE, 336
0676 2143	3	\$8,370.20	\$125,553.02	15.000	EA	N	ITS CABINET- F&I, BASE, 334
0676 2144	2	\$9,437.65	\$179,315.28	19.000	EA	N	ITS CABINET- F&I, BASE, 340
0676 2400	3	\$2,827.00	\$8,481.01	3.000	EA	N	ITS CABINET- RELOCATE
0676 2500	3	\$851.42	\$35,759.60	42.000	EA	N	ITS CABINET- ADJUST/MODIFY
0676 2600	2	\$247.03	\$14,574.90	59.000	EA	N	ITS CABINET- REMOVE
0676 3 10	2	\$1,122.50	\$10,102.48	9.000	EA	N	SMALL EQUIPMENT ENCLOSURE, F&I,>10X13X11
0676 3 30	2	\$1,112.54	\$21,138.20	19.000	EA	N	SMALL EQUIPMENT ENCLOSURE, INSTALL
0676 3 60	1	\$210.00	\$210.00	1.000	EA	N	SMALL EQUIPMENT ENCLOSURE, REMOVE
0677 1 11	1	\$99,000.00	\$99,000.00	1.000	EA	N	EQUIPMENT SHELTER, F&I, UP TO 120 SF
0678 1104	4	\$135.51	\$1,084.09	8.000	EA	N	CNTRL ACCESS, F&I, LOAD SWITCH
0680 1112	1	\$85,000.00	\$85,000.00	1.000	EA	N	SYS CONTROL EQP, F&I,ADAPTIVE SIGNA- NEM
0680 1113	1	\$3,300.00	\$9,900.00	3.000	EA	N	SYS CONTROL EQP, F&I,ADAPTIVE SIGNA- NEM
0680 1422	1	\$884.40	\$1,768.80	2.000	EA	N	SYS CONTROL EQP, REL,ADAPTIVE SIGNA- 170
0680 1423	1	\$530.64	\$3,714.48	7.000	EA	N	SYS CONTROL EQP, REL,ADAPTIVE SIGNA- 170
0682 1111	1	\$8,611.11	\$8,611.11	1.000	EA	N	ITS CCTV CAMERA, F&I, DOME ENCL-PRES.
0682 1112	1	\$6,677.78	\$6,677.78	1.000	EA	N	ITS CCTV CAMERA, F&I, DOME ENCL-PRES.
0682 1113	8	\$5,417.23	\$444,212.70	82.000	EA	N	ITS CCTV CAMERA, F&I, DOME ENCL-PRESS
0682 1133	11	\$6,846.29	\$445,009.10	65.000	EA	N	ITS CCTV CAMERA, F&I, DOME ENCL-NP.
0682 1400	7	\$2,197.06	\$19,773.54	9.000	EA	N	ITS CCTV CAMERA, RELOCATE
0682 1600	2	\$350.05	\$3,150.47	9.000	EA	N	ITS CCTV CAMERA, REMOVE & DISPOSAL
0684 1 1	34	\$3,050.49	\$655,855.98	215.000	EA	N	MANAGED FIELD ETHERNET SWITCH, F&I
0684 1 4	5	\$531.20	\$3,718.40	7.000	EA	N	MANAGED FIELD ETHERNET SWITCH, RELOCATE
0684 2 1	6	\$657.27	\$57,839.95	88.000	EA	N	DEVICE SERVER, F&I
0684 2 4	1	\$305.00	\$915.00	3.000	EA	N	DEVICE SERVER, RELOCATE
0684 3 11	1	\$1,969.14	\$1,969.14	1.000	EA	N	DIGITAL VIDEO ENC W SO, F&I HARD ENCODER
0684 3 41	1	\$200.49	\$200.49	1.000	EA	N	DIGITAL VIDEO ENC W SO, REL HARD ENCODER
0684 5 1	6	\$777.09	\$47,402.68	61.000	EA	N	MEDIA CONVERTER, FURNISH & INSTALL
0684 6 11	1	\$2,724.56	\$5,449.12	2.000	EA	N	WIRELESS COMMUNICATION DEVICE, F&I, ETHE
0684 6 40	4	\$745.79	\$2,983.15	4.000	EA	N	WIRELESS COMMUNICATION DEVICE, RELOCATE
0684 6 60	1	\$360.00	\$720.00	2.000	EA	N	WIRELESS COMMUNICATION DEVICE, REMOVE
0685 1 11	18	\$4,864.09	\$350,214.20	72.000	EA	N	UPS POWER SUPPLY, F&I, LINE INTERACTIVE
0685 1 12	7	\$5,130.67	\$359,146.74	70.000	EA	N	UPS, F&I, ONLINE DOUBLE CONVERSION
0685 1 13	10	\$7,366.11	\$213,617.29	29.000	EA	N	UPS, F&I, ONLINE DOUBLE CONVERSION

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0685 1 60	1	\$545.00	\$2,725.00	5.000	EA	N	UPS, REMOVE- POLE/CABINET REMAINS
0695 1 1	37	\$1,462.47	\$494,314.03	338.000	EA	N	TMS VEH SNSR-NON-WEIGHT, F&I,
0695 3 11	2	\$6,153.00	\$12,306.00	2.000	AS	N	TMS VEH SPEED/CLASS UNIT, F&I,
0695 5 1	1	\$2,703.00	\$2,703.00	1.000	EA	N	TMS VEH SOLAR POWER UNIT, F&I,
0695 6 12	40	\$1,223.60	\$464,969.68	380.000	EA	N	TMS IND LOOP ASSEMBLY
0695 7131	4	\$4,593.38	\$36,747.00	8.000	EA	N	TMS CABINET, F&I , TYP 3 BASE MOUNT
0695 7132	8	\$4,883.10	\$73,246.56	15.000	EA	N	TMS CABINET, F&I , TYP 3 PEDESTAL
0695 7141	3	\$5,314.00	\$26,570.02	5.000	EA	N	TMS CABINET, F&I , TYP 4 BASE
0695 7143	1	\$3,767.00	\$3,767.00	1.000	EA	N	TMS CABINET, F&I , TYP 4 POLE
0695 7162	11	\$4,982.26	\$109,609.78	22.000	EA	N	TMS CABINET, F&I , TYP 3, PEDESTAL
0695 7600	18	\$585.72	\$17,571.65	30.000	EA	N	TMS CABINET, REMOVE
0695 8 11	1	\$1,647.00	\$1,647.00	1.000	EA	N	TMS VEH SYSTEM COMMUNICATIONS MODE, F&I,
0700 1 11	167	\$350.08	\$1,864,535.86	5,326.000	AS	N	SINGLE POST SIGN, F&I GM, <12 SF
0700 1 12	107	\$1,160.74	\$1,634,315.35	1,408.000	AS	N	SINGLE POST SIGN, F&I GM, 12-20 SF
0700 1 13	70	\$1,542.30	\$673,984.27	437.000	AS	N	SINGLE POST SIGN, F&I GM, 21-30 SF
0700 1 14	10	\$1,962.29	\$45,132.72	23.000	AS	N	SINGLE POST SIGN, F&I GM, 31+ SF
0700 1 21	5	\$1,672.00	\$31,768.00	19.000	AS	N	SINGLE POST SIGN, F&I BARR MT, LT 12 SF
0700 1 22	2	\$3,813.00	\$15,252.00	4.000	AS	N	SINGLE POST SIGN, F&I BARR MT, 12-20 SF
0700 1 25	2	\$2,075.48	\$8,301.90	4.000	AS	N	SINGLE POST SIGN, F&I BARR MT, 21-30 SF
0700 1 31	5	\$1,936.29	\$15,490.31	8.000	AS	N	SINGLE POST SIGN, F&I BRG MNT, <12 SF
0700 1 32	5	\$2,069.23	\$26,899.96	13.000	AS	N	SINGLE POST SIGN, F&I BRG MNT, 12-20 SF
0700 1 33	1	\$2,491.17	\$2,491.17	1.000	AS	N	SINGLE POST SIGN, F&I BRG MNT, 21-30 SF
0700 1 40	1	\$300.00	\$600.00	2.000	AS	N	SINGLE POST SIGN, INSTALL
0700 1 50	119	\$235.57	\$202,823.53	861.000	AS	N	SINGLE POST SIGN, RELOCATE
0700 1 60	158	\$28.39	\$126,284.78	4,448.000	AS	N	SINGLE POST SIGN, REMOVE
0700 2 11	3	\$2,064.99	\$14,454.96	7.000	AS	N	MULTI- POST SIGN, F&I GM, <12 SF
0700 2 12	25	\$3,427.54	\$161,094.33	47.000	AS	N	MULTI- POST SIGN, F&I GM, 12-20 SF
0700 2 13	29	\$3,813.32	\$247,866.04	65.000	AS	N	MULTI- POST SIGN, F&I GM, 21-30 SF
0700 2 14	37	\$4,455.66	\$543,591.12	122.000	AS	N	MULTI- POST SIGN, F&I GM, 31-50 SF
0700 2 15	31	\$6,258.18	\$650,851.20	104.000	AS	N	MULTI- POST SIGN, F&I GM, 51-100 SF
0700 2 16	15	\$10,470.30	\$1,329,727.54	127.000	AS	N	MULTI- POST SIGN, F&I GM, 101-200 SF
0700 2 17	7	\$14,243.30	\$484,272.20	34.000	AS	N	MULTI- POST SIGN, F&I GM, 201-300 SF
0700 2 18	2	\$17,590.91	\$193,500.00	11.000	AS	N	MULTI- POST SIGN, F&I GM, 301-400 SF
0700 2 50	19	\$3,643.89	\$120,248.35	33.000	AS	N	MULTI- POST SIGN, RELOCATE
0700 2 60	55	\$936.87	\$361,630.79	386.000	AS	N	MULTI- POST SIGN, REMOVE
0700 3101	41	\$220.37	\$58,837.54	267.000	EA	N	SIGN PANEL, F&I GM, UP TO 12 SF
0700 3102	10	\$427.12	\$20,928.92	49.000	EA	N	SIGN PANEL, F&I GM, 12-20 SF
0700 3103	4	\$887.92	\$9,767.17	11.000	EA	N	SIGN PANEL, F&I GM, 21-30 SF
0700 3104	2	\$1,045.29	\$3,135.88	3.000	EA	N	SIGN PANEL, F&I GM, 31-50 SF
0700 3105	1	\$2,337.00	\$2,337.00	1.000	EA	N	SIGN PANEL, F&I GM, 51-100 SF

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0700 3106	3	\$5,544.38	\$22,177.50	4.000	EA	N	SIGN PANEL, F&I GM, 101-200 SF
0700 3107	1	\$7,122.42	\$7,122.42	1.000	EA	N	SIGN PANEL, F&I GM, 201-300 SF
0700 3201	58	\$577.78	\$262,892.00	455.000	EA	N	SIGN PANEL, F&I OM, UP TO 12 SF
0700 3202	16	\$763.40	\$41,223.68	54.000	EA	N	SIGN PANEL, F&I OM, 12-20 SF
0700 3203	10	\$1,031.17	\$46,402.78	45.000	EA	N	SIGN PANEL, F&I OM, 21-30 SF
0700 3204	3	\$1,750.00	\$8,750.00	5.000	EA	N	SIGN PANEL, F&I OM, 31-50 SF
0700 3205	15	\$3,151.69	\$110,309.25	35.000	EA	N	SIGN PANEL, F&I OM, 51-100 SF
0700 3206	17	\$5,295.35	\$386,560.55	73.000	EA	N	SIGN PANEL, F&I OM, 101-200 SF
0700 3207	9	\$8,141.26	\$390,780.25	48.000	EA	N	SIGN PANEL, F&I OM, 201-300 SF
0700 3208	4	\$11,480.35	\$229,607.00	20.000	EA	N	SIGN PANEL, F&I OM, 301-400 SF
0700 3209	4	\$14,790.79	\$147,907.94	10.000	EA	N	SIGN PANEL, F&I OM, 401-500 SF
0700 3211	1	\$21,500.00	\$150,500.00	7.000	EA	N	SIGN PANEL, F&I OM, 601 SF AND GREATER
0700 3301	2	\$770.00	\$3,850.00	5.000	EA	N	SIGN PANEL, F&I BM, 11870, UP TO 12 SF
0700 3302	1	\$1,700.00	\$1,700.00	1.000	EA	N	SIGN PANEL, F&I BM, 12-20 SF
0700 3401	4	\$138.24	\$9,538.29	69.000	EA	N	SIGN PANEL, INSTALL, UP TO 12 SF
0700 3402	1	\$340.14	\$340.14	1.000	EA	N	SIGN PANEL, INSTALL, 12-20 SF
0700 3404	1	\$1,914.00	\$1,914.00	1.000	EA	N	SIGN PANEL, INSTALL, 31-50 SF
0700 3501	30	\$101.69	\$37,219.32	366.000	EA	N	SIGN PANEL, RELOCATE, UP TO 12 SF
0700 3502	4	\$134.86	\$1,753.20	13.000	EA	N	SIGN PANEL, RELOCATE, 12-20 SF
0700 3504	1	\$720.98	\$1,441.96	2.000	EA	N	SIGN PANEL, RELOCATE, 31-50 SF
0700 3506	1	\$840.00	\$3,360.00	4.000	EA	N	SIGN PANEL, RELOCATE, 101-200 SF
0700 3601	59	\$49.87	\$27,377.59	549.000	EA	N	SIGN PANEL, REMOVE, UP TO 12 SF
0700 3602	12	\$107.09	\$4,176.70	39.000	EA	N	SIGN PANEL, REMOVE, 12-20 SF
0700 3603	10	\$187.39	\$6,558.67	35.000	EA	N	SIGN PANEL, REMOVE, 21-30 SF
0700 3604	6	\$233.05	\$2,097.48	9.000	EA	N	SIGN PANEL, REMOVE, 31-50 SF
0700 3605	11	\$642.29	\$30,829.91	48.000	EA	N	SIGN PANEL, REMOVE, 51-100 SF
0700 3606	11	\$622.51	\$17,430.36	28.000	EA	N	SIGN PANEL, REMOVE, 101-200 SF
0700 3607	5	\$624.59	\$12,491.76	20.000	EA	N	SIGN PANEL, REMOVE, 201-300 SF
0700 3608	1	\$850.00	\$1,700.00	2.000	EA	N	SIGN PANEL, REMOVE, 301-400 SF
0700 3610	1	\$2,390.00	\$33,460.00	14.000	EA	N	SIGN PANEL, REMOVE, 501-600 SF
0700 3624	2	\$791.67	\$2,375.00	3.000	EA	N	SIGN PANEL, REMOVE, UP TO 50 SF WITH LIG
0700 3625	4	\$1,535.44	\$21,496.11	14.000	EA	N	SIGN PANEL, REMOVE, 51-100 SF W LIGHTING
0700 3626	7	\$1,477.27	\$47,272.58	32.000	EA	N	SIGN PANEL, REMOVE, 101-200 SF W LIGHT
0700 3627	5	\$1,452.44	\$8,714.65	6.000	EA	N	SIGN PANEL, REMOVE, 201-300 SF W LIGHT
0700 4112	4	\$63,066.26	\$630,662.56	10.000	EA	N	OH STATIC SIGN STR, F&I, C 21-30 FT
0700 4113	4	\$77,675.71	\$1,087,460.00	14.000	EA	N	OH STATIC SIGN STR, F&I, C 31-40 FT
0700 4114	6	\$98,970.41	\$989,704.10	10.000	EA	N	OH STATIC SIGN STR, F&I, C 41-50 FT
0700 4122	1	\$212,510.00	\$212,510.00	1.000	EA	N	OH STATIC SIGN STR, F&I, S 21-30 FT
0700 4123	1	\$217,577.00	\$217,577.00	1.000	EA	N	OH STATIC SIGN STR, F&I, S 31-40 FT
0700 4125	8	\$152,229.24	\$3,196,814.00	21.000	EA	N	OH STATIC SIGN STR, F&I, S 51-100 FT

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0700 4126	2	\$164,666.67	\$2,964,000.00	18.000	EA	N	OH STATIC SIGN STR, F&I, S 101-150 FT
0700 4127	1	\$277,545.00	\$277,545.00	1.000	EA	N	OH STATIC SIGN STR, F&I, S 151-200 FT
0700 4140	1	\$9,066.00	\$18,132.00	2.000	EA	N	OH STATIC SIGN STR, F&I, O BR MOUNT
0700 4610	10	\$5,132.73	\$189,911.06	37.000	EA	N	OH STATIC SIGN STR, REMOVE, CANT
0700 4620	7	\$10,341.21	\$103,412.10	10.000	EA	N	OH STATIC SIGN STR, REMOVE, SPAN
0700 4640	1	\$1,516.00	\$3,032.00	2.000	EA	N	OH STATIC SIGN STR, REMOVE, BRIDGE MOUNT
0700 4810	1	\$4,465.27	\$8,930.54	2.000	EA	N	OH STATIC SIGN STR, REPAIR, CANT
0700 4820	1	\$8,435.12	\$8,435.12	1.000	EA	N	OH STATIC SIGN STR, REPAIR, SPAN
0700 5 21	24	\$3,199.17	\$323,116.12	101.000	EA	N	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF
0700 5 22	54	\$3,587.96	\$1,428,009.92	398.000	EA	N	INTERNAL ILLUM SIGN, F&I OM, 12-18 SF
0700 5 50	2	\$1,940.00	\$9,700.00	5.000	EA	N	INTERNAL ILLUM SIGN, RELOCATE
0700 5 60	12	\$212.98	\$13,843.59	65.000	EA	N	INTERNAL ILLUM SIGN, REMOVE
0700 5 70	1	\$374.30	\$7,111.70	19.000	EA	N	INTERNAL ILLUM SIGN, RETROFIT
0700 7111	1	\$21,397.00	\$85,588.00	4.000	EA	N	EMBED DYNAMIC MESS SIGN, F&I, MONO, <12
0700 7500	1	\$4,015.05	\$8,030.10	2.000	EA	N	EMBED DYNAMIC MESS SIGN, RELOCATE
0700 8135	3	\$67,348.47	\$808,181.69	12.000	EA	N	FRONT ACC DYN MESS SIGN, F&I, FUL,51-100
0700 8136	2	\$105,616.78	\$211,233.56	2.000	EA	N	FRONT ACC DYN MESS SIGN, F&I, FULL,101-
0700 8600	2	\$2,820.06	\$19,740.40	7.000	EA	N	FRONT ACC DYN MESS SIGN, REMOVE
0700 9137	4	\$117,523.34	\$3,290,653.42	28.000	EA	N	WALK-IN DYN MESS SIGN,F&I, FULL,201-
0700 9600	2	\$623.11	\$11,839.00	19.000	EA	N	WALK-IN DYN MESS SIGN, REMOVE
0700 10115	1	\$52,691.00	\$105,382.00	2.000	EA	N	DMS SUPPORT STRUCTURE, SPAN, 51-100 FT
0700 10122	1	\$52,500.00	\$105,000.00	2.000	EA	N	DMS SUPPORT STRUCTURE, CANT, 21-30 FT
0700 10123	4	\$56,781.43	\$851,721.41	15.000	EA	N	DMS SUPPORT STRUCTURE, CANT, 31-40 FT
0700 10124	3	\$72,013.36	\$360,066.82	5.000	EA	N	DMS SUPPORT STRUCTURE, CANT, 41-50 FT
0700 10600	4	\$34,423.41	\$172,117.06	5.000	EA	N	DMS SUPPORT STRUCTURE, REMOVE
0700 11111	2	\$5,102.39	\$15,307.16	3.000	AS	N	ELECT DISP SIGN, F&I GM- AC, ELECT WARN,
0700 11231	1	\$12,370.98	\$49,483.92	4.000	AS	N	ELECT DISP SIGN, F&I GM- SO, SPEED FEEDB
0700 11232	1	\$13,000.00	\$52,000.00	4.000	AS	N	ELECT DISP SIGN, F&I GM- SO, SPEED FEEDB
0700 11241	1	\$7,911.58	\$15,823.16	2.000	AS	N	ELECT DISP SIGN, F&I GM- SO, ELECT WARN,
0700 11251	1	\$12,800.00	\$51,200.00	4.000	AS	N	ELECT DISP SIGN, F&I GM- SO, ELECT REGUL
0700 11262	2	\$12,539.58	\$75,237.46	6.000	EA	N	ELEC DIS SIGN- F&I GM- SOLAR, SPEED FLAS
0700 11321	2	\$5,063.00	\$60,756.00	12.000	AS	N	ELECT DISP SIGN, F&I OM- AC, EL REG UP
0700 11391	10	\$5,169.54	\$124,068.93	24.000	AS	N	ELECT DISP SIGN, F&I OM- AC, BLANK OUT
0700 11600	1	\$1,000.00	\$1,000.00	1.000	AS	N	ELECT DISP SIGN, REMOVE- GROUND MOUNT
0700 11700	1	\$357.80	\$1,789.00	5.000	AS	N	ELECT DISP SIGN, REMOVE- OVERHEAD MOUNT
0700 12 11	1	\$3,500.00	\$7,000.00	2.000	AS	N	SIGN BEACON, F&I GM- AC, ONE BEACON
0700 12 12	3	\$5,321.43	\$37,250.00	7.000	AS	N	SIGN BEACON, F&I GM- AC, TWO BEACONS
0700 12 21	4	\$5,693.69	\$56,936.88	10.000	AS	N	SIGN BEACON, F&I GM- SOLAR, ONE BEACON
0700 12 22	3	\$8,494.74	\$42,473.72	5.000	AS	N	SIGN BEACON, F&I GM- SOLAR, TWO BEACONS
0700 12 50	1	\$1,720.74	\$3,441.48	2.000	AS	N	SIGN BEACON, RELOCATE BEACON- SIGN TO RE

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0700 13 12	11	\$84.64	\$5,416.66	64.000	EA	N	RETROREFLECTIVE SIGN STRIP- F&I, 2'
0700 13 15	13	\$96.94	\$4,750.07	49.000	EA	N	RETROREFLECTIVE SIGN STRIP- F&I, 5'
0701 17101	6	\$5,343.05	\$155,258.34	29.058	GM	N	PROFILED THERMOPLAST,STD, WHITE,SOLID,6"
0701 17201	6	\$5,227.42	\$125,771.74	24.060	GM	N	PROFILED THERMOPLAST,STD, YELLO,SOLID,6"
0701 17221	1	\$3,300.00	\$4,065.60	1.232	GM	N	PROFILED THERMOPLAST,STD, YELLO,SKIP,6"
0701 18101	22	\$5,603.86	\$1,206,583.87	215.313	GM	N	PROFILED THER,STANDARD- ASPHALT, WH SO 6
0701 18201	22	\$5,584.19	\$555,275.13	99.437	GM	N	PROFILED THER,STANDARD- ASPHALT, YE SO 6
0701 18221	4	\$1,907.42	\$41,797.33	21.913	GM	N	PROFILED THERMOPLAST,STD, YELLO,SKIP,6"
0705 10 1	47	\$226.55	\$98,324.02	434.000	EA	N	OBJECT MARKER, TYPE 1
0705 10 2	15	\$80.43	\$12,064.74	150.000	EA	N	OBJECT MARKER, TYPE 2
0705 10 3	12	\$208.23	\$15,825.59	76.000	EA	N	OBJECT MARKER, TYPE 3
0705 10 4	7	\$152.63	\$6,105.00	40.000	EA	N	OBJECT MARKER, TYPE 4
0705 11 1	43	\$78.32	\$188,820.28	2,411.000	EA	N	DELINEATOR, FLEXIBLE TUBULAR
0705 11 2	20	\$57.15	\$70,581.91	1,235.000	EA	N	DELINEATOR, NON-FLEXIBLE
0705 11 3	31	\$152.20	\$64,378.55	423.000	EA	N	DELINEATOR, FLEX HIGH VISABILITY MED
0705 11 4	6	\$78.60	\$18,942.11	241.000	EA	N	DELINEATOR, FLEX HIGH PERFORMANCE 48"
0705 11 5	4	\$13.03	\$77,073.68	5,913.000	EA	N	DELINEATOR, FLEX HIGH PERF 36"- EXP MARK
0710 11101	140	\$1,029.27	\$1,570,718.22	1,526.048	GM	N	PAINTED PAVT MARK,STD,WHITE,SOLID,6"
0710 11102	63	\$1,400.82	\$42,278.19	30.181	GM	N	PAINTED PAVT MARK,STD,WHITE,SOLID,8"
0710 11103	16	\$2,122.21	\$45,005.62	21.207	GM	N	PAINTED PAVT MARK,STD,WHITE,SOLID,12"
0710 11123	78	\$76	\$144,528.64	189,325.000	LF	N	PAINTED PAVT MARK,STD,WHITE,SOLID, 12"
0710 11124	63	\$99	\$53,996.92	54,606.000	LF	N	PAINTED PAVT MARK,STD,WHITE,SOLID, 18"
0710 11125	109	\$1.35	\$178,961.94	132,779.000	LF	N	PAINTED PAVT MARK,STD,WHITE,SOLID,24"
0710 11131	96	\$435.16	\$375,537.78	862.982	GM	N	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"
0710 11133	9	\$851.14	\$4,184.21	4.916	GM	N	PAINTED PVMT MARK, STD, WHITE, SKIP, 12"
0710 11141	79	\$606.63	\$39,293.98	64.774	GM	N	PAINTED PAVT MARK,STD,WH,DOT GUIDE, 6"
0710 11144	1	\$1,250.00	\$10.00	.008	GM	N	PAINTED PAVEMENT MARKINGS, STANDARD, WHI
0710 11160	71	\$48.33	\$76,997.60	1,593.000	EA	N	PAINTED PAVT MARK,STD,WHITE, MESSAGE
0710 11170	103	\$28.56	\$266,453.36	9,329.000	EA	N	PAINTED PAVT MARK,STD,WHITE, ARROWS
0710 11180	4	\$3.57	\$802.46	225.000	LF	N	PAINTED PAVT MARK,STD,WHITE,YIELD LINE
0710 11190	17	\$13.11	\$14,890.27	1,136.000	SF	N	PAINTED PAVT MARK,STD,WHITE, ISLA NOSE
0710 11201	138	\$976.38	\$1,072,948.87	1,098.907	GM	N	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"
0710 11202	20	\$1,693.83	\$5,023.90	2.966	GM	N	PAINTED PAVT MARK,STD,YELLOW,SOLID,8"
0710 11224	77	\$1.17	\$62,638.51	53,410.000	LF	N	PAINTED PAVT MARK,STD,YELLOW,SOLID,18"
0710 11231	30	\$505.74	\$90,311.06	178.573	GM	N	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"
0710 11241	57	\$650.28	\$17,180.45	26.420	GM	N	PAINTED PAVT MARK,STD,YELLOW,DOT,6"
0710 11290	54	\$3.31	\$61,396.12	18,557.000	SF	N	PAINTED PAVT MARK,STD,YELLOW,ISLAND NOSE
0710 11331	5	\$1,595.55	\$1,238.15	.776	GM	N	PAINTED PAVT MARK,STD,BLACK,SKIP,6"
0710 11421	1	\$56	\$2.80	5.000	LF	N	PAINTED PAVT MARK,STD,BLUE,SOLID,6"
0710 90	182	\$23,911.93	\$5,117,152.46	214.000	LS	N	PAINTED PAVEMENT MARKINGS, FINAL SURFACE

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0711 11102	23	\$7,285.68	\$77,242.77	10.602	GM	N	THERMOPLASTIC, STD, WHITE, SOLID, 8"
0711 11103	24	\$9,073.11	\$204,970.56	22.591	GM	N	THERMOPLASTIC, STD, WHITE, SOLID, 12"
0711 11123	111	\$2.60	\$553,823.11	212,955.000	LF	N	THERMOPLASTIC, STD, WHITE, SOLID, 12"
0711 11124	119	\$3.62	\$315,328.06	86,999.000	LF	N	THERMOPLASTIC, STD, WHITE, SOLID, 18"
0711 11125	151	\$5.03	\$432,825.26	85,968.000	LF	N	THERMOPLASTIC, STD, WHITE, SOLID, 24"
0711 11141	116	\$2,203.05	\$177,609.99	80.620	GM	N	THERMOPLASTIC, STD, WHITE, DOT GUIDE, 6"
0711 11144	2	\$5,110.26	\$398.60	.078	GM	N	THERMO, STD, WHITE, 2-2 DOT EXT,12"
0711 11160	101	\$138.84	\$187,297.11	1,349.000	EA	N	THERMOPLASTIC, STD, WHITE, MESSAGE
0711 11170	135	\$63.65	\$539,134.37	8,470.000	EA	N	THERMOPLASTIC, STD, WHITE, ARROW
0711 11180	20	\$6.71	\$6,548.46	976.000	LF	N	THERMOPLASTIC, STD, WHITE, YIELD LINE
0711 11224	115	\$3.66	\$210,193.49	57,401.000	LF	N	THERMOPLASTIC, STD, YELLOW, SOLID, 18"
0711 11241	86	\$2,289.14	\$66,641.55	29.112	GM	N	THERMOPLASTIC,STD,YELLOW,DOT / GUIDE, 6"
0711 11421	4	\$5.66	\$7,604.07	1,344.000	LF	N	THERMOPLASTIC, STD, BLUE, SOLID,6"
0711 12101	1	\$20,365.86	\$7,718.66	.379	GM	N	THERMOPLASTIC,REFURB, WHITE, SOLID, 6"
0711 12131	1	\$4,967.93	\$1,371.15	.276	GM	N	THERMOPLASTIC, REFURB, WHITE, SKIP, 6"
0711 12170	1	\$121.88	\$1,340.68	11.000	EA	N	THERMOPLASTIC, REFURBISH, WHITE, ARROWS
0711 12201	1	\$5,241.22	\$2,148.90	.410	GM	N	THERMOPLASTIC, REFURB, YELLOW, SOLID, 6"
0711 12231	1	\$5,242.62	\$1,158.62	.221	GM	N	THERMOPLASTIC, REFURB, YELLOW, SKIP, 6"
0711 14123	40	\$9.87	\$521,417.19	52,809.000	LF	N	THERMOPLASTIC, PREFORM, WHITE, SOLID,12"
0711 14125	108	\$17.22	\$2,477,014.42	143,885.000	LF	N	THERMOPLASTIC, PREFORM, WHITE, SOLID,24"
0711 14141	5	\$16,939.29	\$21,326.56	1.259	GM	N	THERMOPLASTIC, PREF, WHITE, 2-4 DOT, CON
0711 14160	99	\$255.40	\$794,290.98	3,110.000	EA	N	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE
0711 14170	93	\$133.16	\$351,677.25	2,641.000	EA	N	THERMOPLASTIC, PREFORMED, WHITE, ARROW
0711 14241	2	\$9,650.89	\$434.29	.045	GM	N	THERMOPLASTIC, PREF, YELLOW, 2-4' CONC
0711 14341	4	\$13,547.43	\$10,417.97	.769	GM	N	THERMOPLASTIC, PREF, BLACK, 2-4' CONC
0711 14560	5	\$1,045.74	\$54,378.68	52.000	EA	N	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE
0711 14570	6	\$461.37	\$116,727.64	253.000	EA	N	THERMOPLASTIC, PREF, WHITE CONTRAST
0711 14660	13	\$2,162.75	\$261,692.64	121.000	EA	N	THERMOPLASTIC, PREFORMED, MULTI, ROUTE S
0711 15101	54	\$4,502.21	\$1,942,410.12	431.435	GM	N	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"
0711 15102	21	\$5,525.48	\$67,952.41	12.298	GM	N	THERMOPLASTIC, STD-OP, WHITE, SOLID, 8"
0711 15131	49	\$1,556.26	\$833,593.21	535.640	GM	N	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"
0711 15133	8	\$2,466.67	\$26,062.86	10.566	GM	N	THERMOPLASTIC, STD-OP, WHITE, SKIP, 12"
0711 15201	49	\$4,429.37	\$1,623,972.47	366.637	GM	N	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"
0711 15202	9	\$5,880.02	\$5,092.10	.866	GM	N	THERMOPLASTIC, STD-OP, YELLOW, SOLID, 8"
0711 15231	5	\$1,749.27	\$2,924.78	1.672	GM	N	THERMOPLASTIC, STD-OP, YELLOW, SKIP, 6"
0711 16101	149	\$4,123.65	\$1,844,443.93	447.284	GM	N	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"
0711 16102	74	\$5,475.21	\$116,052.58	21.196	GM	N	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 8"
0711 16131	91	\$1,390.57	\$286,211.03	205.823	GM	N	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"
0711 16133	17	\$3,129.86	\$5,586.80	1.785	GM	N	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 12"
0711 16201	145	\$4,165.63	\$1,261,343.56	302.798	GM	N	THERMOPLASTIC, STD-OTH,YELLOW, SOLID, 6"

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0711 16202	29	\$6,388.91	\$15,863.66	2.483	GM	N	THERMOPLASTIC, STD-OT, YELLOW, SOLID, 8"
0711 16231	33	\$1,597.02	\$136,262.39	85.323	GM	N	THERMOPLASTIC, STD-OTH, YELLOW, SKIP, 6"
0711 17	27	\$2.35	\$176,558.91	74,985.000	SF	N	THERMOPLASTIC, REMOVE
0713103101	45	\$26,031.17	\$268,355.38	10.309	GM	N	PERMANENT TAPE, WHITE,SOLID,6" CONC BR
0713103102	2	\$37,903.91	\$11,522.79	.304	GM	N	PERM TAPE, WHITE, S, 8" EXIT CONC PAVMT
0713103103	4	\$48,724.48	\$8,380.61	.172	GM	N	PERMANENT TAPE, WHITE,SOLID,12" CONC BR
0713103131	32	\$10,710.91	\$148,849.54	13.897	GM	N	PERMANENT TAPE, WHITE,SKIP/D,6" FOR CONC
0713103133	2	\$43,478.26	\$3,000.00	.069	GM	N	PERM TAPE, WHITE, SK, 12" 3'-9 CON PVMT
0713103201	42	\$23,220.73	\$166,121.13	7.154	GM	N	PERMANENT TAPE, YELLOW,SOLID,6" CONC BR
0713103231	5	\$10,915.05	\$9,026.75	.827	GM	N	PERMANENT TAPE, YELLOW,SKIP/,6" FOR CONC
0713103331	29	\$9,311.95	\$124,091.04	13.326	GM	N	PERMANENT TAPE, BLACK,SKIP/D,6" FOR CONC
0713103333	1	\$17,000.00	\$680.00	.040	GM	N	PERM TAPE, BLACK,, 3'-9' DROP LN,12"
0713107	5	\$3.13	\$24,473.88	7,818.000	SF	N	PREFORMED/PERMANENT TAPE, REMOVE
0715 1 11	11	\$.67	\$38,634.01	57,850.000	LF	N	LIGHTING CONDUCTORS,F&I,INSUL, NO.10 OR<
0715 1 12	84	\$1.19	\$4,118,871.27	3,446,834.000	LF	N	LIGHTING CONDUCTORS, F&I, INSUL,NO.8-6
0715 1 13	44	\$1.67	\$1,936,354.48	1,160,642.000	LF	N	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2
0715 1 14	5	\$2.49	\$753,882.88	303,298.000	LF	N	LIGHTING CONDUCTORS, F&I, INSUL, NO.1-0
0715 1 15	7	\$2.75	\$177,218.90	64,337.000	LF	N	LIGHTING CONDUCTORS, F&I,NO.1/0-3/0
0715 1 40	1	\$22.00	\$1,408.00	64.000	LF	N	LIGHTING CONDUCTORS, RELOCATE EXISTING C
0715 1 60	37	\$.37	\$217,079.47	584,591.000	LF	N	LIGHTING CONDUCTORS,R&D, CONT OWNS
0715 4 11	24	\$4,893.86	\$709,609.46	145.000	EA	N	LIGHT POLE COMPLETE, F&I- STD, 30'
0715 4 12	18	\$5,515.31	\$728,020.31	132.000	EA	N	LIGHT POLE COMPLETE, F&I- STD, 35'
0715 4 13	40	\$5,041.84	\$5,621,655.08	1,115.000	EA	N	LIGHT POLE COMPLETE, F&I- STD, 40'
0715 4 14	24	\$5,981.57	\$5,568,837.29	931.000	EA	N	LIGHT POLE COMPLETE, F&I- STD, 45'
0715 4 15	9	\$5,960.10	\$10,120,257.92	1,698.000	EA	N	LIGHT POLE COMPLETE, F&I- STD, 50'
0715 4 21	8	\$7,574.76	\$287,840.89	38.000	EA	N	LIGHT POLE COMPLETE, F&I- STD P, SP, 30'
0715 4 22	5	\$7,170.12	\$272,464.51	38.000	EA	N	LIGHT POLE COMPLETE, F&I- STD P, SP, 35'
0715 4 23	12	\$6,374.49	\$624,700.02	98.000	EA	N	LIGHT POLE COMPLETE, F&I- STD P, SP, 40'
0715 4 24	8	\$9,041.44	\$1,030,723.65	114.000	EA	N	LIGHT POLE COMPLETE, F&I- STD P, SP, 45'
0715 4 25	2	\$11,513.48	\$529,620.22	46.000	EA	N	LIGHT POLE COMPLETE, F&I- STD P, SP, 50'
0715 4 31	7	\$5,441.34	\$103,385.41	19.000	EA	N	LIGHT POLE COMPLETE, F&I- UTI 17515, 30'
0715 4 32	6	\$6,836.30	\$116,217.12	17.000	EA	N	LIGHT POLE COMPLETE, F&I- UTI 17515, 35'
0715 4 33	2	\$5,690.59	\$11,381.17	2.000	EA	N	LIGHT POLE COMPLETE, F&I- UTI 17515, 40'
0715 4 41	6	\$7,674.27	\$429,759.21	56.000	EA	N	LIGHT POLE COMPLETE, F&I- UTI SP, 30'
0715 4 42	4	\$8,640.22	\$155,523.89	18.000	EA	N	LIGHT POLE COMPLETE, F&I- SP, 35'
0715 4 60	13	\$2,818.97	\$140,948.56	50.000	EA	N	LIGHT POLE COMPLETE, RELOCATE
0715 4 70	34	\$800.14	\$398,467.41	498.000	EA	N	LIGHT POLE COMPLETE, REMOVE POLE/FOUND
0715 4 71	4	\$282.39	\$8,189.25	29.000	EA	N	LIGHT POLE COMPLETE, REMOVE POLE
0715 5 21	4	\$1,970.88	\$59,126.40	30.000	EA	N	LUMINAIRE & BRACKET ARM, REPLACE L &ARM
0715 5 30	1	\$1,448.33	\$1,448.33	1.000	EA	N	LUMINAIRE & BRACKET ARM, INSTALL

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0715 5 31	11	\$1,489.17	\$62,545.06	42.000	EA	N	LUMINAIRE & BRACKET ARM, F&I NEW
0715 5 32	6	\$2,043.26	\$65,384.36	32.000	EA	N	LUMINAIRE & BRACKET ARM, F&I NEW
0715 5 51	6	\$225.92	\$2,259.18	10.000	EA	N	LUMINAIRE & BRACKET ARM, REMOVE L & ARM
0715 7 11	46	\$12,698.14	\$1,346,002.51	106.000	EA	N	LOAD CENTER, F&I, SECONDARY VOLTAGE
0715 7 12	2	\$13,312.00	\$66,560.00	5.000	EA	N	LOAD CENTER, F&I, PRIMARY VOLTAGE
0715 7 21	11	\$2,295.72	\$75,758.71	33.000	EA	N	LOAD CENTER, REWORK, SECONDARY VOLTAGE
0715 7 31	1	\$1,950.00	\$1,950.00	1.000	EA	N	LOAD CENTER, RELOCATE, SECONDARY VOLT
0715 7 41	8	\$983.09	\$13,763.31	14.000	EA	N	LOAD CENTER, REMOVE, SECONDARY VOLTAGE
0715 11 11	1	\$1,000.00	\$20,000.00	20.000	EA	N	LUMINAIRE- LED WASH LIGHT- BR 436527-1
0715 11 12	1	\$1,100.00	\$4,400.00	4.000	EA	N	LUMINAIRE- LED FLOOD LIGHT, 43652715201
0715 11 14	1	\$800.00	\$7,200.00	9.000	EA	N	LUMINAIRE- BARRIER LIGHT REF 43652715201
0715 11 15	1	\$250.00	\$1,750.00	7.000	EA	N	LUMINAIRE- LAMP REPLACEMENT 43652715201
0715 11 16	1	\$950.00	\$5,700.00	6.000	EA	N	LUMINAIRE- UNDERDECK PENDANT 25632315201
0715 11118	1	\$1,000.00	\$10,000.00	10.000	EA	N	LUMINAIRE, F&I, ROADWAY, FLOOD
0715 11125	16	\$956.04	\$222,758.41	233.000	EA	N	LUMINAIRE, F&I, UNDER DECK, WALL MOUNT
0715 11211	36	\$1,112.19	\$1,297,924.03	1,167.000	EA	N	LUMINAIRE ,F&I-REP EXIST, RDWY, COBRA H
0715 11213	16	\$1,480.86	\$272,478.30	184.000	EA	N	LUMINAIRE ,F&I-REP EXIST, RDWY, POLE T
0715 11214	2	\$1,778.12	\$7,112.46	4.000	EA	N	LUMINAIRE ,F&I-REP EXIST, RDWY, POLE T
0715 11216	8	\$2,676.49	\$634,328.55	237.000	EA	N	LUMINAIRE ,F&I-REP ON POLE EXIST , RDWY
0715 11500	12	\$150.82	\$52,485.07	348.000	EA	N	LUMINAIRE, REMOVE
0715 19 12	1	\$90,116.57	\$2,343,030.82	26.000	EA	N	HIGH MAST LIGHT POLE, F&I, 100'
0715 19 13	4	\$56,855.38	\$3,127,045.85	55.000	EA	N	HIGH MAST LIGHT POLE, F&I, 120'
0715 19 51	1	\$1,619.03	\$53,427.99	33.000	EA	N	HIGH MAST LIGHT POLE, REPLACE HPS LIGHT
0715 19 60	2	\$6,551.04	\$85,163.51	13.000	EA	N	HIGH MAST LIGHT POLE, REM POLE & FOUND
0715 21 2	6	\$1,522.33	\$627,200.19	412.000	EA	N	LIGHTING REPAIRS AND RETROFITS, LED RETR
0715500 1	76	\$563.66	\$2,826,738.57	5,015.000	EA	N	POLE CABLE DIST SYS, CONVENTIONAL
0715500 2	7	\$349.65	\$32,517.83	93.000	EA	N	POLE CABLE DISTRIBUTION SYS, HIGH MAST
0715500 3	10	\$448.99	\$140,533.60	313.000	EA	N	POLE CABLE DISTRIBUTION SYS, WALL MOUNT
0715511120	2	\$4,896.03	\$19,584.12	4.000	EA	N	LIGHT POLE COMP- SP,F&I,SGL SM, AL,20'
0715511125	5	\$5,010.56	\$225,475.29	45.000	EA	N	LIGHT POLE SP DES,F&I,SGL ARM SM, AL,25'
0715511135	3	\$8,586.61	\$249,011.63	29.000	EA	N	LIGHT POLE COMP,F&I,SGL ARM SM, AL,35'
0715511140	4	\$13,153.48	\$591,906.60	45.000	EA	N	LIGHT POLE COMP,F&I,SGL ARM SM, AL,40'
0715511220	1	\$11,324.76	\$56,623.80	5.000	EA	N	LI/PL COMP, F&I, SGLARM SHLD MNT-GLV,20'
0715511230	1	\$11,687.74	\$93,501.92	8.000	EA	N	LI/PL COMP, F&I, SGLARM SHLD MNT-GLV,30'
0715511320	1	\$6,329.00	\$607,584.00	96.000	EA	N	LIGHT POLE COMP- SP,F&I,SGL SM, CON,20'
0715511330	1	\$9,052.12	\$63,364.84	7.000	EA	N	LIGHT POLE COMP,F&I,SGL ARM SM,CONC,30'
0715511740	1	\$20,000.00	\$60,000.00	3.000	EA	N	LIGHT POLE COMP,F&I,SGL ARM SM,SSTEE,40'
0715512140	1	\$5,654.41	\$28,272.05	5.000	EA	N	LIGHT POLE COMP, F&I, DBL ARM SM, AL,40'
0715512315	2	\$14,980.00	\$194,740.00	13.000	EA	N	LI/PL COMP,F&I,DBL ARM SHLD MNT-CONC,15'
0715512325	1	\$14,550.00	\$843,900.00	58.000	EA	N	LI/PL COMP,F&I,DBL ARM SHLD MNT-CONC,25'

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0715512340	1	\$9,058.73	\$9,058.73	1.000	EA	N	LI/PL COMP,F&I,DBL ARM SHLD MNT-CONC,40'
0715513140	1	\$4,100.00	\$32,800.00	8.000	EA	N	LIGHT POLE COMP, F&I, SGL ARM WM, AL,40'
0715514125	1	\$10,420.00	\$177,140.00	17.000	EA	N	LIGHT POLE SP DES,F&I,DBL ARM WM, AL,25'
0715515140	1	\$4,000.00	\$12,000.00	3.000	EA	N	LI/PL COMP,F&I, SGLARM BR MNT, ALUM, 40'
0715516115	2	\$5,011.47	\$45,103.24	9.000	EA	N	LIGHT POLE COMP,F&I,POLE TOP MNT, AL,15'
0715516120	1	\$7,500.00	\$22,500.00	3.000	EA	N	LIGHT POLE COMP,F&I,POLE TOP MNT, AL,20'
0715516125	1	\$12,500.00	\$37,500.00	3.000	EA	N	LIGHT POLE COMP,F&I, POLE TOP MNT-AL,25'
0715516315	2	\$7,516.33	\$165,359.16	22.000	EA	N	LIGHT POLE COMP-SP DES, F&I TOP CONC 15
0715517125	1	\$10,420.00	\$104,200.00	10.000	EA	N	LIGHT POLE COMP,F&I,DBLARM BR MT,25
0715518150	1	\$6,827.50	\$6,827.50	1.000	EA	N	LIGHTPOLE COMP,F&I,POLE,DA,TP MNT-AL,50'
0715540000	3	\$4,883.87	\$39,070.92	8.000	EA	N	LIGHT POLE COMP-SPECIAL, RELOCATE
0715550000	4	\$654.39	\$8,507.11	13.000	EA	N	LIGHT POLE COMP,SP DESIGN- REMOVE
0735 74	1	\$3,046,000.00	\$3,046,000.00	1.000	LS	N	TOLL PLAZA, SINGLE LOCATION
0735 74 1	3	\$2,450,000.00	\$7,350,000.00	3.000	LS	N	TOLL PLAZA, LOCATION 1
0735 74 2	2	\$2,150,000.00	\$4,300,000.00	2.000	LS	N	TOLL PLAZA, LOCATION 2
0735 74 3	1	\$2,500,000.00	\$2,500,000.00	1.000	LS	N	TOLL PLAZA, LOCATION 3
0735 88	1	\$163,000.00	\$163,000.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING
0735 88 1	1	\$610,000.00	\$610,000.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 1
0735 88 2	1	\$53,000.00	\$53,000.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 2
0735 88 3	1	\$47,000.00	\$47,000.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 3
0735 88 4	1	\$47,000.00	\$47,000.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 4
0735 88 5	1	\$9,200.00	\$9,200.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 5
0735 88 6	1	\$9,200.00	\$9,200.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 6
0735 88 7	1	\$53,000.00	\$53,000.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 7
0735 88 8	1	\$47,000.00	\$47,000.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 8
0735 88 9	1	\$47,000.00	\$47,000.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 9
0735 88 10	1	\$21,800.00	\$21,800.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 10
0735 88 11	1	\$21,800.00	\$21,800.00	1.000	LS	N	TOLL PLAZA MODIFY EXISTING, LOCATION 11
0751 35 11	1	\$29,894.23	\$119,576.92	4.000	EA	N	BUS SHELTER, F&I, UPTO 50
0751 35 12	1	\$23,660.00	\$212,940.00	9.000	EA	N	ARCHITECTURAL, BUS SHELTER, F&I, 50-100
0751 35 42	2	\$10,093.65	\$30,280.96	3.000	EA	N	ARCHITECTURAL, BUS SHELTER, REL, 50-100
0751 36 12	1	\$660.89	\$3,965.34	6.000	EA	N	BICYCLE RACK, FURNISH & INSTALL, 2-6 BI
0751 37	2	\$1,533.71	\$21,471.94	14.000	EA	N	TRASH RECEPTACLE
0751 38 11	1	\$730.70	\$3,653.50	5.000	EA	N	BENCH, F&I, ALUMINUM
0770 78	1	\$73,597.50	\$73,597.50	1.000	EA	N	STATIC / WEIGH-IN-MOTION SCALE SYSTEM
0904540 13	1	\$18.18	\$148,948.74	8,193.000	LF	N	HI TENSION CABLE BAR SYS-LENGTH OF NEED
0904540 14	1	\$2,908.47	\$17,450.82	6.000	EA	N	HI TENSION CABLE BAR SYS- END TERMINAL
0904540 16	1	\$21.25	\$174,101.25	8,193.000	LF	N	HI TENSION CABLE BAR SYS, CONC MOW STRIP
0999 16	48	\$8,004.17	\$384,200.00	48.000	LS	N	PARTNERING, DO NOT BID
0999 20 1	14	\$3,300.00	\$1,287,000.00	390.000	DA	N	DISPUTES REVIEW BD, MEETING- DO NOT BID

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
0999 20 2	14	\$5,000.00	\$160,000.00	32.000	EA	N	DISPUTES REVIEW BD, HEARING- DO NOT BID
0999 25	249	\$39,257.66	\$15,192,716.21	387.000	LS	N	INITIAL CONTINGENCY AMOUNT, DO NOT BID
1000 5	3	\$408,599.67	\$1,225,799.00	3.000	LS	N	UTILITY WORK- JPA/UTILITY AGREEME, SEWER
1000 6	7	\$319,031.43	\$2,233,220.00	7.000	LS	N	UTILITY WORK- JPA/UTILITY AGREEME, WATER
1000 7	4	\$202,029.55	\$808,118.21	4.000	LS	N	UTILITY WORK- JPA/UTILITY AGREEME, POWER
1050 13003	1	\$119.30	\$7,158.00	60.000	LF	N	UTILITY PIPE,INSTALL, 5-7.9"
1050 13004	1	\$177.10	\$38,962.00	220.000	LF	N	UTILITY PIPE,INSTALL, 8-19.9"
1050 15004	1	\$259.80	\$51,960.00	200.000	LF	N	UTILITY PIPE, ADJUST/MOD,8-19.9"
1050 15005	2	\$190.58	\$57,175.00	300.000	LF	N	UTILITY PIPE, ADJUST/MOD,20-49.9"
1050 16001	2	\$9.54	\$3,674.55	385.000	LF	N	UTILITY PIPE,REMOVE- DISPOSE,0-1.9"
1050 16002	4	\$18.87	\$112,749.80	5,975.000	LF	N	UTILITY PIPE,REMOVE- DISPOSE,2-4.9"
1050 16003	5	\$12.13	\$248,470.44	20,476.000	LF	N	UTILITY PIPE,REMOVE & DISPOSE,5-7.9"
1050 16004	13	\$11.05	\$572,879.71	51,858.000	LF	N	UTILITY PIPE,REMOVE & DISPOSE,8-19.9"
1050 16005	4	\$12.79	\$171,282.54	13,396.000	LF	N	UTILITY PIPE,REMOVE & DISPOSE, 20-49.9"
1050 18002	4	\$8.76	\$22,023.30	2,513.000	LF	N	UTILITY PIPE,PLUG & OUT OF SERV,2- 4.9"
1050 18003	5	\$30.77	\$31,565.00	1,026.000	LF	N	UTILITY PIPE,PLUG & OUT OF SERV,5- 7.9"
1050 18004	6	\$10.63	\$127,739.30	12,014.000	LF	N	UTILITY PIPE,PLUG & OUT OF SERV,8-19.9"
1050 31102	1	\$7.00	\$784.00	112.000	LF	N	UTILITY PIPE- PVC, F&I 2"
1050 31104	1	\$23.90	\$18,068.40	756.000	LF	N	UTILITY PIPE- PVC, F&I 4"
1050 31202	1	\$27.40	\$1,835.80	67.000	LF	N	UTILITY PIPE- PVC, F&I 2"
1050 31203	1	\$2,950.00	\$11,800.00	4.000	LF	N	UTILITY PIPE- PVC, F&I 3"
1050 31204	5	\$51.98	\$43,556.00	838.000	LF	N	UTILITY PIPE- PVC, F&I 4"
1050 31206	7	\$43.55	\$149,646.62	3,436.000	LF	N	UTILITY PIPE- PVC, F&I 6"
1050 31208	8	\$37.04	\$884,433.24	23,879.000	LF	N	UTILITY PIPE- PVC, F&I 8"
1050 31210	4	\$39.11	\$124,849.85	3,192.000	LF	N	UTILITY PIPE- PVC, F&I 10"
1050 31212	6	\$64.03	\$1,109,612.32	17,329.000	LF	N	UTILITY PIPE- PVC, F&I 12"
1050 31216	2	\$73.43	\$517,512.96	7,048.000	LF	N	UTILITY PIPE- PVC, F&I 16"
1050 31220	2	\$100.51	\$709,112.00	7,055.000	LF	N	UTILITY PIPE- PVC, F&I 20"
1050 41104	1	\$20.00	\$1,440.00	72.000	LF	N	UTILITY PIPE- PE, F&I, CASING/COND, 4"
1050 41201	3	\$98.00	\$13,425.40	137.000	LF	N	UTILITY PIPE- PE, F&I, WATER/SEW, 1"
1050 41202	3	\$48.85	\$67,458.26	1,381.000	LF	N	UTILITY PIPE- PE, F&I, WATER/SEW, 2"
1050 41210	1	\$194.94	\$837,267.30	4,295.000	LF	N	UTILITY PIPE- PE,F&I, WATER/SEW,10"
1050 42202	3	\$41.50	\$4,939.00	119.000	LF	N	UTILITY PIPE- HDPE, F&I, WATER/SEW, 2"
1050 42204	1	\$52.30	\$8,734.10	167.000	LF	N	UTILITY PIPE- HDPE, F&I, WATER/SEW, 2"
1050 42206	2	\$79.01	\$96,238.80	1,218.000	LF	N	UTILITY PIPE- HDPE, F&I, WATER/SEW, 6"
1050 42210	1	\$89.75	\$30,604.75	341.000	LF	N	UTILITY PIPE- HDPE, F&I, WATER/SEW, 10"
1050 42214	1	\$157.20	\$24,208.80	154.000	LF	N	UTILITY PIPE- HDPE, F&I, WATER/SEW, 14"
1050 42216	1	\$249.97	\$20,997.48	84.000	LF	N	UTILITY PIPE- HDPE, F&I, WATER/SEW, 16"
1050 42218	1	\$239.20	\$222,216.80	929.000	LF	N	UTILITY PIPE- HDPE, F&I, WATER/SEW, 18"
1050 42220	2	\$271.73	\$398,900.00	1,468.000	LF	N	UTILITY PIPE- HDPE, F&I, WATER/SEW, 20"

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
1050 42236	1	\$3.00	\$2,235.00	745.000	LF	N	UTILITY PIPE- HDPE, F&I, WATER/SEW, 36"
1050 51206	2	\$169.89	\$22,425.00	132.000	LF	N	UTILITY PIPE- DI/CI, F&I, WATER/SEWER, 6
1050 51208	4	\$60.58	\$149,201.50	2,463.000	LF	N	UTILITY PIPE- DI/CI, F&I, WATER/SEWER, 8
1050 51210	3	\$163.06	\$64,735.48	397.000	LF	N	UTILITY PIPE- DI/CI, F&I, WATER/SEWER,10
1050 51212	4	\$89.44	\$64,400.00	720.000	LF	N	UTILITY PIPE- DI/CI, F&I, WATER/SEWER,12
1050 51214	1	\$380.00	\$117,420.00	309.000	LF	N	UTILITY PIPE- DI/CI, F&I, WATER/SEWER,14
1050 51216	4	\$67.23	\$1,132,423.00	16,843.000	LF	N	UTILITY PIPE- DI/CI, F&I, WATER/SEWER,16
1050 51218	1	\$430.00	\$10,320.00	24.000	LF	N	UTILITY PIPE- DI/CI, F&I, WATER/SEWER,18
1050 51220	1	\$300.00	\$39,000.00	130.000	LF	N	UTILITY PIPE- DI/CI, F&I, WATER/SEWER,20
1050 51224	1	\$170.00	\$34,000.00	200.000	LF	N	UTILITY PIPE- DI/CI, F&I, WATER/SEWER,24
1050 61116	1	\$475.00	\$54,625.00	115.000	LF	N	UTILITY PIPE- STEEL, F&I, CASING, 16"
1050 61120	1	\$605.10	\$207,549.30	343.000	LF	N	UTILITY PIPE- STEEL, F&I, CASING, 20"
1050 61124	1	\$550.00	\$140,800.00	256.000	LF	N	UTILITY PIPE- STEEL, F&I, CASING, 24"
1050 61130	2	\$546.49	\$165,040.00	302.000	LF	N	UTILITY PIPE- STEEL, F&I, CASING, 30"
1055 11194	1	\$575.00	\$8,050.00	14.000	EA	N	UTILITY FITTING, F&I, CONC, SPE, 8.0-19.9"
1055 11273	1	\$500.00	\$1,000.00	2.000	EA	N	UTILITY FITTING, F&I, PVC, CLEANOUT
1055 11414	5	\$1,023.06	\$112,536.96	110.000	EA	N	UTILITY FITTING, F&I, DI/CI, ELBOW, 8-19.9"
1055 11415	2	\$2,640.00	\$121,440.00	46.000	EA	N	UTILITY FITTING, F&I, DI/CI, ELBOW, 20-49.9"
1055 11424	3	\$1,291.48	\$56,825.00	44.000	EA	N	UTILITY FITTING, F&I, DI/CI, TEE, 8-19.9"
1055 11425	1	\$5,300.00	\$5,300.00	1.000	EA	N	UTILITY FITTING, F&I, DI/CI, TEE, 20-49.9"
1055 11434	4	\$664.85	\$13,297.00	20.000	EA	N	UTILITY FITTING, F&I, DI/CI, REDUCER, 8-19.9"
1055 11444	2	\$2,105.83	\$25,270.00	12.000	EA	N	UTILITY FITTING, F&I, DI/CI, UNION, 8-19.9"
1055 11445	1	\$3,800.00	\$57,000.00	15.000	EA	N	UTILITY FITTING, F&I, DI/CI, UNION, 20-49.9"
1055 11454	3	\$772.14	\$10,810.00	14.000	EA	N	UTILITY FITTING, F&I, DI/CI, CAP/PLG, 8-19.9"
1055 11494	2	\$1,407.00	\$21,105.00	15.000	EA	N	UTILITY FITTINGS, F&I, DI/CI, SPEC, 8-19.9"
1055 31108	2	\$693.19	\$15,250.15	22.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, ELBOW, 8"
1055 31110	2	\$691.00	\$2,763.98	4.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, ELBOW, 10"
1055 31112	3	\$807.46	\$102,547.75	127.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, ELBOW, 12"
1055 31116	1	\$2,710.68	\$108,427.20	40.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, ELBOW, 16"
1055 31120	1	\$2,714.69	\$70,581.94	26.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, ELBOW, 20"
1055 31210	1	\$800.00	\$800.00	1.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, TEE, 10"
1055 31212	2	\$1,133.01	\$29,458.20	26.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, TEE, 12"
1055 31216	1	\$3,389.16	\$23,724.12	7.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, TEE, 16"
1055 31220	1	\$3,859.17	\$11,577.51	3.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, TEE, 20"
1055 31310	1	\$450.00	\$450.00	1.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, REDU, 10"
1055 31508	3	\$1,103.19	\$7,722.36	7.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, CAP, 8"
1055 31512	2	\$824.37	\$4,121.85	5.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, CAP, 12"
1055 31516	1	\$1,127.34	\$1,127.34	1.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, CAP, 16"
1055 31608	1	\$500.00	\$1,000.00	2.000	EA	N	UTILITY FITTINGS FOR PVC PIPE, 8" WYE
1055 51108	5	\$802.28	\$52,950.75	66.000	EA	N	UTILITY FITTINGS, DI/CI F&I ELBOW, 8"

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
1055 51110	1	\$1,907.15	\$19,071.50	10.000	EA	N	UTILITY FITTINGS, DI/CI F&I ELBOW, 10"
1055 51112	2	\$1,109.50	\$5,547.48	5.000	EA	N	UTILITY FITTINGS, DI/CI F&I ELBOW, 12"
1055 51114	1	\$3,500.00	\$59,500.00	17.000	EA	N	UTILITY FITTINGS, DI/CI F&I ELBOW, 14"
1055 51116	3	\$1,296.84	\$123,200.00	95.000	EA	N	UTILITY FITTINGS, DI/CI F&I ELBOW, 16"
1055 51118	1	\$1,500.00	\$3,000.00	2.000	EA	N	UTILITY FITTINGS, DI/CI F&I ELBOW, 18"
1055 51208	4	\$2,529.64	\$22,766.75	9.000	EA	N	UTILITY FITTINGS, DI/CI F&I TEE, 8"
1055 51210	1	\$1,000.00	\$1,000.00	1.000	EA	N	UTILITY FITTINGS, DI/CI F&I TEE, 10"
1055 51216	2	\$1,515.00	\$12,120.00	8.000	EA	N	UTILITY FITTINGS, DI/CI F&I TEE, 16"
1055 51308	1	\$500.00	\$500.00	1.000	EA	N	UTILITY FITTINGS, DI/CI F&I REDUCER, 8"
1055 51310	2	\$1,079.53	\$19,431.46	18.000	EA	N	UTILITY FITTINGS, DI/CI F&I REDUCER, 10"
1055 51312	1	\$1,306.09	\$1,306.09	1.000	EA	N	UTILITY FITTINGS, DI/CI F&I REDUCER, 12"
1055 51314	2	\$1,891.85	\$5,675.54	3.000	EA	N	UTILITY FITTINGS, DI/CI F&I REDUCER, 14"
1055 51316	2	\$1,414.71	\$2,829.41	2.000	EA	N	UTILITY FITTINGS, DI/CI F&I REDUCER, 16"
1055 51318	1	\$2,587.76	\$31,053.12	12.000	EA	N	UTILITY FITTINGS, DI/CI F&I REDUCER, 18"
1055 51408	2	\$1,299.67	\$3,899.00	3.000	EA	N	UTILITY FITTINGS, DI/CI F&I UNION, 8"
1055 51410	1	\$1,404.64	\$22,474.24	16.000	EA	N	UTILITY FITTINGS, DI/CI F&I UNION, 10"
1055 51508	2	\$864.98	\$4,324.90	5.000	EA	N	UTILITY FITTINGS, DI/CI F&I CAP/PL, 8"
1055 51510	1	\$1,050.00	\$4,200.00	4.000	EA	N	UTILITY FITTINGS, DI/CI F&I CAP/PL, 10"
1055 51512	1	\$1,300.00	\$3,900.00	3.000	EA	N	UTILITY FITTINGS, DI/CI F&I CAP/PL, 12"
1055 51516	1	\$1,000.00	\$1,000.00	1.000	EA	N	UTILITY FITTINGS, DI/CI F&I CAP/PL, 16"
1060 11211	2	\$4,625.00	\$27,750.00	6.000	EA	N	UTIL STRCT,BLW GRN,F&I,WTR/SWR,0-80,0-6'
1060 11212	1	\$7,500.00	\$22,500.00	3.000	EA	N	UTIL STRCT,BLW GRN,F&I,WTR/SWR,0-80,6-12'
1060 11213	2	\$16,000.00	\$32,000.00	2.000	EA	N	UTIL STRCT,BLW GRN,F&I,WTR/SWR,0-80,>12'
1060 11222	1	\$5,350.00	\$10,700.00	2.000	EA	N	UTIL STRCT,BLW GRN,F&I,WTR/SWT,>80,6.1-
1060 15	7	\$898.45	\$40,430.03	45.000	EA	N	UTILITY STR,BELOW GROUND,A/M
1060 16	4	\$2,729.62	\$21,836.94	8.000	EA	N	UTILITY STR,BLW GRN,R&D,CONT OWNS
1060 21 10	1	\$2,150.00	\$25,800.00	12.000	EA	N	UTILITY STR-ABOV GRN,0-1 CY, W/O COVER
1060 25	1	\$1,350.00	\$1,350.00	1.000	EA	N	UTILITY STR,ABVOE GRD, ADJ & MOD
1060 31 1	1	\$1,790.00	\$19,690.00	11.000	EA	N	UTILITY STRUCTURE, F&I- REP EXIST RIM
1070 1 1	1	\$17.30	\$34,513.50	1,995.000	SF	N	UTILITY AUX, 8" CONC SLAB
1080 21100	1	\$500.00	\$500.00	1.000	EA	N	UTILITY FIXTURE, VALVE/MET BOX, F&I 1"
1080 21102	2	\$1,420.00	\$63,900.00	45.000	EA	N	UTILITY FIXTURE, VALVE/MET BOX, F&I 2"
1080 21104	1	\$3,220.00	\$9,660.00	3.000	EA	N	UTILITY FIXTURE, VALVE/METER BOX, F&I 4"
1080 21106	2	\$562.23	\$42,729.65	76.000	EA	N	UTILITY FIXTURE, VALVE/METER BOX, F&I 6"
1080 21108	3	\$748.50	\$7,485.00	10.000	EA	N	UTILITY FIXTURE, VALVE/METER BOX, F&I 8"
1080 21112	3	\$1,332.89	\$11,996.00	9.000	EA	N	UTILITY FIXTURE, VALVE/METER BOX,F&I 12"
1080 21114	1	\$9,700.00	\$9,700.00	1.000	EA	N	UTILITY FIXTURE, VALVE/METER BOX,F&I 14"
1080 21500	5	\$423.46	\$18,208.87	43.000	EA	N	UTILITY FIXTURE, VALVE/METER BOX, ADJUST
1080 21600	2	\$2,755.00	\$5,510.00	2.000	EA	N	UTILITY FIXTURE, VALVE/METER BOX, REMOVE
1080 22101	1	\$1,700.00	\$1,700.00	1.000	EA	N	UTILITY FIXTURE- BACKFLOW ADDEM, F&I, 1"

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
1080 23102	1	\$1,229.25	\$22,126.50	18.000	EA	N	UTILITY FIXTURE- TAPPING SAD/SL, F&I 2"
1080 23104	1	\$2,790.57	\$13,952.85	5.000	EA	N	UTILITY FIXTURE- TAPPING SAD/SL, F&I 4"
1080 23106	3	\$1,998.11	\$9,990.57	5.000	EA	N	UTILITY FIXTURE- TAPPING SAD/SL, F&I 6"
1080 23108	4	\$1,784.13	\$74,933.36	42.000	EA	N	UTILITY FIXTURE- TAPPING SAD/SL, F&I 8"
1080 23110	2	\$2,639.66	\$18,477.60	7.000	EA	N	UTILITY FIXTURE- TAPPING SAD/SL, F&I 10"
1080 23112	7	\$3,573.92	\$246,600.56	69.000	EA	N	UTILITY FIXTURE- TAPPING SAD/SL, F&I 12"
1080 23116	1	\$13,500.00	\$13,500.00	1.000	EA	N	UTILITY FIXTURE- TAPPING SAD/SL, F&I 16"
1080 23120	1	\$9,793.00	\$58,758.00	6.000	EA	N	UTILITY FIXTURE- TAPPING SAD/SL, F&I 20"
1080 23124	1	\$12,716.00	\$12,716.00	1.000	EA	N	UTILITY FIXTURE- TAPPING SAD/SL, F&I 24"
1080 24100	1	\$188.44	\$188.44	1.000	EA	N	UTILITY FIXTURE, VALVE ASSY, F&I 1"
1080 24102	3	\$725.56	\$4,353.38	6.000	EA	N	UTILITY FIXTURE, VALVE ASSY, F&I 2"
1080 24104	3	\$1,434.54	\$15,779.90	11.000	EA	N	UTILITY FIXTURE, VALVE ASSEMBLY, F&I 4"
1080 24106	11	\$1,362.24	\$133,499.89	98.000	EA	N	UTILITY FIXTURE, VALVE ASSEMBLY, F&I 6"
1080 24108	8	\$1,899.05	\$157,620.77	83.000	EA	N	UTILITY FIXTURE, VALVE ASSEMBLY, F&I 8"
1080 24110	5	\$5,809.03	\$34,854.20	6.000	EA	N	UTILITY FIXTURE, VALVE ASSEMBLY, F&I 10"
1080 24112	10	\$3,450.67	\$269,152.59	78.000	EA	N	UTILITY FIXTURE, VALVE ASSEMBLY, F&I 12"
1080 24116	4	\$6,158.06	\$190,900.00	31.000	EA	N	UTILITY FIXTURE, VALVE ASSEMBLY, F&I 16"
1080 24120	3	\$13,770.07	\$192,780.96	14.000	EA	N	UTILITY FIXTURE, VALVE ASSEMBLY, F&I 20"
1080 24500	9	\$553.08	\$49,223.71	89.000	EA	N	UTILITY FIXTURE, VALVE ASSEMBLY, ADJ/MOD
1080 24600	2	\$323.11	\$12,278.00	38.000	EA	N	UTILITY FIXTURE, VALVE ASSEMBLY, REMOVE
1080 25102	1	\$1,437.74	\$4,313.22	3.000	EA	N	UTILITY FIXTURE- BLOWOFF ASSEM, F&I, 2"
1080 26102	3	\$5,218.67	\$140,904.08	27.000	EA	N	UTILITY FIXTURE, VAC/AIR ASSEM, F&I, 2"
1080 26104	1	\$3,989.00	\$3,989.00	1.000	EA	N	UTILITY FIXTURE, VAC/AIR ASSEM, F&I, 4"
1080 26106	1	\$3,994.32	\$3,994.32	1.000	EA	N	UTILITY FIXTURE, VAC/AIR ASSEM, F&I, 6"
1080 26108	1	\$4,123.00	\$20,615.00	5.000	EA	N	UTILITY FIXTURE, VAC/AIR ASSEM, F&I, 8"
1080 26110	1	\$4,477.70	\$4,477.70	1.000	EA	N	UTILITY FIXTURE, VAC/AIR ASSEM, F&I, 10"
1080 26112	2	\$5,242.85	\$36,699.92	7.000	EA	N	UTILITY FIXTURE, VAC/AIR ASSEM, F&I 12"
1080 26114	1	\$2,600.00	\$2,600.00	1.000	EA	N	UTILITY FIXTURE, VAC/AIR ASSEM, F&I 14"
1080 26116	2	\$6,409.02	\$102,544.28	16.000	EA	N	UTILITY FIXTURE, VAC/AIR ASSEMB, F&I 16"
1080 26120	2	\$7,044.10	\$42,264.60	6.000	EA	N	UTILITY FIXTURE, VAC/AIR ASSEM, F&I, 20"
1080 27104	1	\$4,275.00	\$12,825.00	3.000	EA	N	UTILITY FIXTURE- LINE STOP ASSY, F&I, 4"
1080 27106	2	\$6,643.80	\$33,219.00	5.000	EA	N	UTILITY FIXTURE- LINE STOP ASSY, F&I, 6"
1080 27108	2	\$5,559.50	\$44,476.00	8.000	EA	N	UTILITY FIXTURE- LINE STOP ASSY, F&I, 8"
1080 27110	1	\$9,100.00	\$36,400.00	4.000	EA	N	UTILITY FIXTURE- LINE STOP ASSY, F&I, 1"
1080 27112	4	\$8,377.76	\$418,888.00	50.000	EA	N	UTILITY FIXTURE- LINE STOP ASSY, F&I, 12
1080 27116	1	\$5,500.00	\$5,500.00	1.000	EA	N	UTILITY FIXTURE- LINE STOP ASSY, F&I, 16
1080 27120	3	\$13,423.50	\$107,388.00	8.000	EA	N	UTILITY FIXTURE- LINE STOP ASSY, F&I, 20
1080 29104	2	\$428.00	\$3,424.00	8.000	EA	N	UTILITY FIXTURE, MECH JT RESTR, F&I 4"
1080 29106	5	\$296.36	\$32,006.91	108.000	EA	N	UTILITY FIXTURE, MECH JT RESTR, F&I 6"
1080 29108	6	\$306.40	\$53,926.60	176.000	EA	N	UTILITY FIXTURE, MECH JT RESTR, F&I 8"

Florida Department of Transportation
Item Average Unit Cost
From 2018/07/01 to 2019/06/30

Contract Type: CC STATEWIDE
Displaying: VALID ITEMS WITH HITS
From: 0102 1 To: 9999999

Item	No. of Conts	Weighted Average	Total Amount	Total Quantity	Unit Meas	Obs?	Description
1080 29110	2	\$288.42	\$21,055.00	73.000	EA	N	UTILITY FIXTURE, MECH JT RESTR, F&I 10"
1080 29112	7	\$402.17	\$251,759.46	626.000	EA	N	UTILITY FIXTURE, MECH JT RESTR, F&I 12"
1080 29116	3	\$425.05	\$261,830.00	616.000	EA	N	UTILITY FIXTURE, MECH JT RESTR, F&I 16"
1080 29120	3	\$1,356.09	\$292,916.35	216.000	EA	N	UTILITY FIXTURE, MECH JT RESTR, F&I 20"
1080 29124	2	\$2,160.89	\$66,987.50	31.000	EA	N	UTILITY FIXTURE, MECH JT RESTR, F&I 24"
1080 32102	1	\$923.95	\$4,619.75	5.000	EA	N	UTILITY FIXTURE- SAMPLE POINT, F&I 2"
1080 32108	1	\$600.00	\$1,800.00	3.000	EA	N	UTILITY FIXTURE- SAMPLE POINT, F&I 8"
1080 32112	2	\$682.50	\$4,095.00	6.000	EA	N	UTILITY FIXTURE- SAMPLE POINT, F&I 12"
1080 32116	2	\$651.11	\$11,720.00	18.000	EA	N	UTILITY FIXTURE- SAMPLE POINT, F&I 16"
1080 33104	1	\$1,301.40	\$3,904.20	3.000	EA	N	UTILITY FIXTURE, PLUG VALVE, F&I 4"
1080 33106	2	\$2,996.65	\$14,983.24	5.000	EA	N	UTILITY FIXTURE, PLUG VALVE, F&I 6"
1080 33108	1	\$3,110.00	\$9,330.00	3.000	EA	N	UTILITY FIXTURE, PLUG VALVE, F&I 8"
1080 33110	2	\$3,528.84	\$24,701.88	7.000	EA	N	UTILITY FIXTURE, PLUG VALVE, F&I 10"
1080 33112	2	\$6,051.23	\$18,153.69	3.000	EA	N	UTILITY FIXTURE, PLUG VALVE, F&I 12"
1080 33116	1	\$7,781.79	\$62,254.32	8.000	EA	N	UTILITY FIXTURE, PLUG VALVE, F&I 16"
1501 1	1	\$300,000.00	\$300,000.00	1.000	EA	N	LIFT STATION, SANITARY SEWER
1644113 08	3	\$5,112.17	\$138,028.61	27.000	EA	N	FIRE HYDRANT,F&I,STD,2 HOSE,1PUMP,6"
1644116 08	3	\$5,517.91	\$60,697.00	11.000	EA	N	FIRE HYD, STD, F&I, 3WY, 2 HOSE, 1P, 6"
1644136 08	1	\$4,800.00	\$4,800.00	1.000	EA	N	FIRE HYDRANT,F&I,TRAF,2 HOSE,1PUMP,6"
1644400	1	\$2,500.00	\$2,500.00	1.000	EA	N	FIRE HYDRANT, SALVAGE & STORE
1644700	1	\$2,700.00	\$5,400.00	2.000	EA	N	FIRE HYDRANT, ADJUST & MODIFY
1644800	4	\$3,423.00	\$37,653.00	11.000	EA	N	FIRE HYDRANT, RELOCATE
1644900	3	\$694.73	\$12,505.07	18.000	EA	N	FIRE HYDRANT, REMOVE
1820 2 60	1	\$5.00	\$5,400.00	1,080.000	LF	N	UTILITY FIBER OPTIC,PHONE COM,REM-DISP

Note : Averages and totals are based on the awarded unit price only.
Weighted average is weighted on Quantity at the contract level.

Appendix C

Detailed Project Scoring

Appendix C - Raw Scores

Project Name	Safety	Mobility	Accountability	Regional Support
Adaptive Traffic Signal Control (US 27)	2	2	2	1.38
Adaptive Traffic Signal Control (US 90)	2	2	2	2.00
System Detectors	1	3	3	2.88
Cabinet Upgrades	3	1	3	2.88
Managed Field Ethernet Switch Replacement	1	1	2	2.38
CCTV Cameras - Phase 1	3	3	3	2.38
CCTV Cameras - Phase 2	2	2	2	2.38
CCTV Camera Upgrade	3	3	3	2.88
Smart Work Zones	3	2	2	2.00
FYA Upgrades Pilot	3	2	2	1.50
Travel Time Reliability System - Phase 1	2	2	2	2.00
Travel Time Reliability System - Phase 2	2	2	2	1.88
Connected Vehicle Infrastructure	2	1	2	1.75
ATMS Upgrades	3	3	2	2.50
Transit Signal Priority	2	3	2	2.00
Website Connectivity	1	2	1	1.00
I-10 Trailblazers	3	3	3	1.75
ATSPM Dashboard/Performance Monitoring	2	2	3	2.50
Bicycle Detection	1	1	1	1.63
Traffic Signal Management Plan	1	2	3	2.75
Communications Network – Redundancy Expansion	1	1	2	1.50

Note: Regional support point total is an average of the points assigned by stakeholders.

Appendix C - Final Rank

Project Name	Safety (30%)	Mobility (20%)	Accountability (25%)	Regional Support (25%)	Total Points	Rank
CCTV Camera Upgrade	0.9	0.6	0.75	0.71875	2.97	1
CCTV Cameras - Phase 1	0.9	0.6	0.75	0.59375	2.84	2
I-10 Trailblazers	0.9	0.6	0.75	0.4375	2.69	3
ATMS Upgrades	0.9	0.6	0.5	0.625	2.63	4
Cabinet Upgrades	0.9	0.2	0.75	0.71875	2.57	5
ATSPM Dashboard/Performance Monitoring	0.6	0.4	0.75	0.625	2.38	6
System Detectors	0.3	0.6	0.75	0.71875	2.37	7
Smart Work Zones	0.9	0.4	0.5	0.5	2.30	8
Transit Signal Priority	0.6	0.6	0.5	0.5	2.20	9
FYA Upgrades Pilot	0.9	0.4	0.5	0.375	2.18	10
Traffic Signal Management Plan	0.3	0.4	0.75	0.6875	2.14	11
CCTV Cameras - Phase 2	0.6	0.4	0.5	0.59375	2.09	12
Travel Time Reliability System - Phase 1	0.6	0.4	0.5	0.5	2.00	13
Adaptive Traffic Signal Control (US 90)	0.6	0.4	0.5	0.5	2.00	13
Travel Time Reliability System - Phase 2	0.6	0.4	0.5	0.46875	1.97	15
Adaptive Traffic Signal Control (US 27)	0.6	0.4	0.5	0.34375	1.84	16
Connected Vehicle Infrastructure	0.6	0.2	0.5	0.4375	1.74	17
Managed Field Ethernet Switch Replacement	0.3	0.2	0.5	0.59375	1.59	18
Communications Network – Redundancy Expansion	0.3	0.2	0.5	0.375	1.38	19
Website Connectivity	0.3	0.4	0.25	0.25	1.20	20
Bicycle Detection	0.3	0.2	0.25	0.40625	1.16	21