|  |
| --- |
| October 2020 |

|  |  |
| --- | --- |
|  | Florida ITS Architecture Support and Maintenance Project  Final District 7 Major Update Report  Version 1.0 |

|  |
| --- |
|  |
|  |

Document Version Control

|  |  |  |
| --- | --- | --- |
| Author / Action | Submittal Date | Version No. |
| Arobindu Das / Draft Document | August 20, 2020 | 1.0 |
| Cliff Heise / QA/QC Review | August 20, 2020 | 1.0 |
| Arobindu Das / Final Document | October 2, 2020 | 1.0 |
| Cliff Heise / QA/QC Review | October 2, 2020 | 1.0 |
|  |  |  |

Table of Contents

[1.0 Introduction 4](#_Toc52568033)

[2.0 Description of Changes 4](#_Toc52568034)

[2.1 Stakeholders 5](#_Toc52568035)

[2.2 Inventory Elements 10](#_Toc52568036)

[2.3 Service Packages 22](#_Toc52568037)

[2.4 Current and New Projects in the Architecture 46](#_Toc52568038)

[2.5 Agreements 83](#_Toc52568039)

[2.6 Stakeholder Roles and Responsibilities 90](#_Toc52568040)

[2.7 Standards and Specifications 93](#_Toc52568041)

[2.8 Requirements 94](#_Toc52568042)

[3.0 Report Summary 96](#_Toc52568043)

List of Tables

[Table 1 Stakeholder Revisions 5](#_Toc52565583)

[Table 2 Inventory Element Revisions 11](#_Toc52565584)

[Table 3 Former District 7 RITSA Service Revisions 23](#_Toc52565585)

[Table 4 added District 7 Services 40](#_Toc52565586)

[Table 5 Services added for PRojects 41](#_Toc52565587)

[Table 6 District 7 RITSA Projects 47](#_Toc52565588)

[Table 7 Agreements 84](#_Toc52565589)

[Table 8 Roles and REsponsibilities 90](#_Toc52565590)

[Table 9 High-Level List of Standards in District 7 RITSA 93](#_Toc52565591)

[Table 10 Sample Requirements List 95](#_Toc52565592)

# Introduction

This Major Update Report for the Florida District 7 Regional ITS Architecture (RITSA) identifies the revisions incorporated into the architecture. The revisions reflect the inputs of stakeholders as part of the Florida Intelligent Transportation Systems (ITS) Architecture Support and Maintenance Project. Information was gathered from Stakeholders through an Initial Review Report and Meeting conducted on September 26, 2019, and a Stakeholder Workshop conducted on February 25, 2020. Additional information was gathered from Stakeholders based on the review of the Draft version of this District 7 Major Update Report.

The revisions to the District 7 RITSA include project implementation and plans, transportation and technology initiatives being pursued by stakeholders, and opportunities for architecture streamlining to improve the District 7 RITSA’s application and maintenance.

The purpose of this District 7 RITSA Major Update Report is to document revisions made to the District 7 RITSA.

The Florida ITS Architecture Support and Maintenance Project includes the update of the Statewide ITS Architecture (SITSA) and seven RITSAs. The same review, information gathering, workshops, and architecture update processes are being used for each of the architectures. The FDOT Architecture Team coordinates with the FDOT Project Manager or designee and each applicable District Transportation Systems Management and Operations (TSM&O) Program Engineer or designee for the RITSAs. The FDOT Architecture Team is documenting findings and recommended actions separately for the SITSA and the seven RITSAs. The outcome of the District 7 RITSA Stakeholder Workshop, along with the outcome from the District 7 RITSA Initial Review Meeting, resulted in the changes to the District 7 RITSA described in this document as part of its major update.

# Description of Changes

This section of the report captures the overall architecture changes based on analysis of the District 7 Initial Review Meeting, the Stakeholder Workshop, the Stakeholder Workbook, and subsequent comments from District 7 stakeholders. The changes are grouped by architecture component. Additional changes were identified from further investigation and discussion with stakeholders during the update process as some of the information received early in this process was superseded by later stakeholder input. RITSA update actions taken are shown in **bold text**.

Several plans and initiatives were reviewed with respect to the District 7 RITSA Update. In particular,

* STAMP Action Plan
* ITS Ten Year Cost Feasible Plan
* FDOT CAV Business Plan (2019)
* Florida Transportation Plan (FTP)
* Strategic Intermodal System (SIS) Policy Plan
* Traffic Incident Management (TIM) Plan (2019)
* Transportation Technology Strategic Plan
* Strategic Highway Safety Plan (SHSP)
* Planned CVO Strategic Plan

These documents provide high-level visions and plans and, while they did not provide detail to inform the District 7 RITSA Update, they did provide scoping and vision for the District 7 RITSA.

## Stakeholders

The stakeholder changes include name revisions, consolidation of stakeholders, and stakeholder removal to simplify and extend the District 7 RITSA.

The stakeholder inputs gathered from the Initial Review Meeting, Stakeholder Workshop and Stakeholder Workbook, as well as other inputs gathered from numerous stakeholder interactions are provided in Table 1. In the table, the stakeholder is identified, the issue or recommended disposition is described, and the actions taken by the FDOT Architecture Team are described.

Table 1 Stakeholder Revisions

| **Stakeholder Name** | **Stakeholder Description** | **Recommendation and Action Taken** |
| --- | --- | --- |
| CHEMTREC | CHEMTREC (CHEMical TRansportation Emergency Center) was established by the chemical industry as a public service hotline for fire fighters, law enforcement, and other emergency responders to obtain information and assistance for emergency incidents involving chemicals and hazardous materials. | **Removed stakeholder.** |
| Citrus County PWD | Represents the Citrus County Department of Public Works. | Should Department of Public Works be PWD or DPW? (Carla Holmes /Gresham Smith). **Changed to Citrus County DPW.** |
| Plant City Public Works | Represents Plant City Public Works. | Replace Plant City Public Works with Plant City Traffic Operations Department. Description: Represents Plant City Traffic Operations Department. City of Plant City Traffic Operations Department consists of four programs: Signals, Signs, Street Painting, and Advanced Traffic Management System (ATMS).  **Replaced Plant City Public Works with City of Plant City Traffic Operations and revised description.** |
| City of Tampa Downtown Transportation Program | City of Tampa's official downtown transportation program which includes Coast Bike Share, Electric Scooter (E-Scooter) etc. | This stakeholder is the only member of the Private Commercial Vehicle and Fleet Operator Group. Can it just be a stand-alone stakeholder? Or should other stakeholders be included? Another comment referenced Bird, Uber-Jump, Lime that is also included in this stakeholder? Should those be included in the description? (Carla Holmes /Gresham Smith).  **Removed stakeholder from group.** |
| City of Tampa Transportation and Stormwater Services. | Agency responsible for traffic operations and equipment maintenance for the City of Tampa. | Revise name as “City of Tampa Smart Mobility Division”. (J Wong /Hillsborough MPO).  **Renamed the stakeholder and revised description**. |
| Citrus County PWD | Represents the Citrus County Department of Public Works. | Should this be DPW instead of PWD?  **Changed to Citrus County DPW.** |
| District 7 MPOs | Represents a stakeholder group consisting of all MPOs in District 7. | Replace Pinellas County MPO with Forward Pinellas. Replace Plan Hillsborough with Hillsborough MPO. (J Wong /Hillsborough MPO).  **Revised the District 7 MPO stakeholder group’s members.** |
| **Flamingo Fare App Development Team** | **Partnership of transit agencies developing a regional fare card app.** | New Stakeholder. Added the stakeholder and included in the District 7 MPO. (J Wong /Hillsborough MPO).  **Added stakeholder.** |
| **FDOT State Traffic Engineering and Operations Office** | **The FDOT Traffic Engineering and Operations Office provides support and expertise in the application of traffic engineering principles and practices to improve safety and mobility. This office is responsible for several program areas such as Traffic Engineering Studies, Signing, Services, Traffic Incident Management, and Transportation Systems Management and Operations (TSM&O). The TSM&O section is responsible for four main areas including (1) SunGuide software management and ITS architecture updates, (2) telecommunications to support ITS deployments, (3) Florida advanced traveler information system management and (4) arterial management.** | New Stakeholder  **Added stakeholder of the “FDOT TPAS” element.** |
| Hernando County PWD | Represents the Hernando County Department of Public Works. | Hernando County website shows this as Department of Public Works (DPW), no PWD. (Carla Holmes /Gresham Smith).  **Revised to Hernando County DPW.** |
| **Hillsborough County** | **Hillsborough County is in the west central portion in the State of Florida. The county represents twelve (12) agencies. These are Clerk of the Circuit Court, Emergency Policy Group, Environmental Protection Commission, HART, Hillsborough County Schools, Plan Hillsborough, Property Appraiser, Sheriff's Office, Solid and Water Conservation District, Supervisor of Elections, Tax Collector and Thirteenth Judicial Circuit Court.** | New Stakeholder (J Wong /Hillsborough MPO).  **Added stakeholder; no element is associated with the stakeholder.** |
| Pasco County TOD | Represents the Pasco County Traffic Operations Division of the Engineering Services Department**.** | Some acronyms like this should be spelled out since TOD may not be a commonly used agency acronym. This could be Traffic Operations Department, not Division. And this one is not too long as to cause issues with diagrams. (Carla Holmes /Gresham Smith).  **The use of abbreviations in the stakeholder names is consistent across all RITSAs. Title acronyms are spelled out in the description so there is a reference for the acronym meaning. In this case, it is Division, not Department.** |
| Plan Hillsborough | Represents the metropolitan planning organization for Hillsborough County. | Revise Description (J Wong /Hillsborough MPO).  **Revised description.** |
| Tampa Bay Regional Transportation Authority | The Tampa Bay Area Regional Transportation Authority (TBARTA) was created by the Florida State Legislature in 2007 to develop and implement a Regional Transportation Master Plan for the seven-county West Central Florida region consisting of Citrus, Hernando, Hillsborough, Manatee, Pasco, Pinellas and Sarasota Counties. | See Stakeholder Name and description edits (J Wong /Hillsborough MPO).  Tampa Bay Regional Transportation Authority.  Name: Tampa Bay Area Regional ~~Transportation~~ Transit Authority  Description: The Tampa Bay Area Regional ~~Transportation~~ Transit Authority (TBARTA) was created by the Florida State Legislature in ~~2007~~ 2017 to develop and implement a Regional Transportation Master Plan for the ~~seven~~ five-county West Central Florida region consisting of ~~Citrus,~~ Hernando, Hillsborough, Manatee, Pasco, and Pinellas ~~and Sarasota~~ Counties.  **Renamed stakeholder and revised description.** |
| Transit | Developer of the Transit Mobile Application. | Why is there a separate “Transit” stakeholder, when the only Inventory Element is PSTA Transit App? Should that be under Pinellas Suncoast Transit Authority? (Carla Holmes /Gresham Smith).  **The PSTA Transit App is a private sector-developed application and service that ingests PSTA transit information and is endorsed by PSTA to distribute that information to travelers. The element was were added to the RITSA in the “PSTA OneBusAway Application” project. The “Transit” stakeholder has been renamed the “Transit Application Developer” to represent it as a stakeholder that developed the “Transit App”.** |
| **Waze CCP** | **Consortium of municipalities participating in a data exchange with navigation app, Waze.** | New Stakeholder (J Wong /Hillsborough MPO).  **Added stakeholder.** |
| **Hillsborough MPO ITS Committee** | **Advisory committee to the Hillsborough MPO, which consists of ITS professionals in Hillsborough County.** | New Stakeholder (J Wong /Hillsborough MPO).  **Added stakeholder.** |
| **Smart Cities Alliance** | **Regional consortium of public and private entities focusing on leveraging technologies to solve mobility problems.** | New Stakeholder (J Wong /Hillsborough MPO).  **Added stakeholder.** |
| **TECO Energy Inc.** | **TECO Energy Inc. is an energy-related holding company in Tampa and a subsidiary of Emera Incorporated.** | New Stakeholder (J Wong /Hillsborough MPO).  **Added stakeholder.** |
| Private Sector ISPs | Private traveler and transportation information service providers. | **Revised stakeholder name to “Private ISPs”. Revised description to “Private traveler and transportation information service providers.”** |

## Inventory Elements

The inventory element changes include name revisions, new elements, and element removal for the District 7 RITSA.

The stakeholder inputs gathered from the Initial Review Meeting and the Stakeholder Workshop, as well as other inputs gathered from other stakeholder interactions, are provided in Table 2. In the table, the elements are identified and the actions taken by the FDOT Architecture Team are described. There were changes made to the RITSA during review of the District 7 RITSA system interactions which resulted in clarification District 7 RITSA systems and interfaces.

Table 2 Inventory Element Revisions

| **Element Name** | **Element Description** | **Element Status** | **Associated Physical Objects** | **Stakeholder** | **Recommendation & Action Taken** |
| --- | --- | --- | --- | --- | --- |
| **Autonomous Shuttle Vehicle** | **The self-driving shuttle vehicle equipped with advanced and connected vehicle technologies and travels in an open environment on public roads with mixed traffic.** | Planned | Vehicle OBE, Basic Vehicle | Hillsborough Area Regional Transit Authority(HART) | **Added element for “HART Downtown Tampa Autonomous Transit” Project.** |
| **CAV Authorizing Center** | **The Connected and Automated Vehicle (CAV) Authorizing Center provides the functionality needed to enable data exchange between and among mobile and fixed transportation users. Its primary mission is to enable safety, mobility and environmental communications–based applications for both mobile and non–mobile users. The CAV Authorizing Center has some jurisdiction over limited access resources; typically this includes roadside application access and radio spectrum licensing. It may be implemented as an autonomous center or as a set of supporting services that are co–located within another center. This object is generally defined and will be refined as needed.** | Planned | Authorizing Center | FDOT CO | **Added element for projects.** |
| **CAV-ITS Map Update System** | **The Connected and Automated Vehicle (CAV)–ITS Map Update System represents a provider of map databases used to support ITS services. It supports the provision of the map data that are used directly by vehicles (e.g., roadway and intersection geometry data sets), travelers (e.g., navigable maps used for route guidance and display maps used at traveler information points), system operators (e.g., map data used by Traffic Operators to monitor and manage the road network, and map data used by Fleet Managers to manage a vehicle fleet). It may represent a third–party provider or an internal organization that produces map data for agency use. Products may include simple display maps, map data sets that define detailed road network topology and geometry, or full geographic information system databases that are used to support planning and operations. This element is tagged as CAV related, but that is only to draw attention to its need for CAV purposes but it is also valuable for traditional ITS services.** | Planned | Map Update System | FDOT CO | **Added element for projects.** |
| City of Plant City Field Equipment | Represents the ITS field equipment such as traffic signals owned and operated by Plant City. The traffic signal control function is performed by FDOT. There is also a workstation in Plant City. | Existing | ITS Roadway Equipment | Plant City Public Works | Revise element description. (Fred Baxter /City of Plant City).  **Revised element description.** |
| City of Plant City Traffic Control Center | The traffic signal control function is performed by FDOT. There is also a workstation in Plant City. | Existing | Traffic Management Center | Plant City Public Works | Renamed “City of Plant City Traffic Control Center” element to “City of Plant City TMC” and revised the element description. (Fred Baxter /City of Plant City).  **Renamed element and revised description.** |
| **City of Tampa CAV Field Equipment** | **City of Tampa CAV Field Equipment represents the Connected and Autonomous Vehicle (CAV) field equipment in the City of Tampa. In addition to the City of Tampa TMC, this equipment will interface to statewide CAV systems that are required for administrative, security, credentialing, or other support purposes.** | Planned | Connected Vehicle Roadside Equipment, Field, ITS Object, ITS Roadway Equipment | City of Tampa Smart Mobility Division | **Added element for the “FDOT District 7 I-275 Integrated Corridor Management (ICM)” project.** |
| **City of Tampa Police Dispatch** | **The City of Tampa police dispatch center provides call taking, communications, and dispatch functions. It will have access to City Tampa DMS and detector information.** | Existing | Emergency Management Center, Traffic Management Center, Enforcement Center | City of Tampa Police Department | **Added element for the “City of Tampa ATMS Expansion” project.** |
| FDLE Headquarters | Represents the Florida Department of Law Enforcement Office in Tallahassee that originates Amber Alerts. | Existing | Emergency Management Center, Enforcement Center | Florida Department of Law Enforcement | **Renamed element to “FDLE Headquarters Wide Area Alert System” to make it consistent with the element in District 1 RITSA.** |
| FDOT District 1 | Represents a generic center encompassing various FDOT District 1 Traffic Management Centers | Existing | Traffic Management Center | FDOT District 1 | **Renamed element to “FDOT District 1 Traffic Management Centers” to make it consistent with the element in District 1 RITSA.** |
| FDOT District 1 Field Equipment | Represents the ITS field equipment operated by FDOT District 1. Existing equipment includes Highway Advisory Radios. | Existing | ITS Roadway Equipment | FDOT District 1 | **Revised description to make it consistent with the description of this element in District 1 RITSA.** |
| FDOT Connected Vehicle Roadside Equipment | Roadside equipment used for infrastructure portion of connected vehicle applications. | Planned | Connected Vehicle Roadside Equipment, ITS Roadway Equipment | FDOT District 7 | **Renamed element as FDOT District 7 CAV Field Equipment to make it consistent with the name of similar element in District 1 RITSA. Revised description.** |
| **FDOT District 7 Wrong Way Detection System** | **FDOT District 7 Wrong Way Detection System uses data from detectors installed on and near highway off-ramps, detects wrong way travelling vehicle and sends alerts and warns motorist driving wrong-way on the ramps through flashing beacon signs.** | Planned | Traffic Management Center, Alerting and Advisory System | FDOT District 7 | **Added element for “FDOT District 7 Wrong Way Detection (WWD) Ramp System Expansion” project.** |
| FDOT CV Parking Management System | Represents the Commercial Vehicle (CV) Parking Management System for the State of Florida. This system determines parking availability at CV parking facilities and communicates this information downstream to commercial vehicle operators. | Planned | Parking Management System | FDOT | **Replaced FDOT CV Parking Management System with FDOT TPAS to make it consistent with SITSA.** |
| **FDOT SCMS** | **FDOT's Security and Credentials Management System (SCMS) will support connected and autonomous vehicle operations. The SCMS will enable trusted communications between mobile devices and other mobile devices, roadside devices, and centers and protect data they handle from unauthorized access. As the SCMS interacts with mobile devices and other devices in the Connected and Automated Vehicle (CAV) environment, these devices pass through stages as certificates and cryptographic material are furnished that enable the device to have trusted interactions with other devices in the CAV environment.** | Planned | Cooperative ITS Credential Management System | FDOT CO | **Added element for project.** |
| FTE TEAMS | Floridas Turnpike Enterprise Asset Management System (MARS). TEAMS allows users to input assets to maintain inventory TEAMS may include traffic safety/crash information, roadway information, traffic operational data, assets, and maintenance information. | Existing | Archived Data System | Floridas Turnpike Enterprise | Description typo? “Floridas Turnpike Enterprise Asset Management System (MARS).” Shouldn’t that be TEAMS, not MARS?  **Revised description.** |
| FTE Data Collection Field Equipment |  |  |  |  | Should this be in the D7 RITSA? There don’t appear to be any connections to any D7 elements or systems, only FTE. Or are there missing interconnects not shown on the website?  **This legacy FTE element has been removed from the RITSA. It is not an element that is interfacing with non-FTE District 7 elements. It was removed from the MC06 service. The FTE Maintenance and Construction Vehicles element was also removed as an element and from MC06.** |
| **Florida DMV Licensing and Registration System** | **Vehicle registration systems of the Florida Department of Highway Safety and Motor Vehicles. These systems provides commercial driver's license and vehicle registration in the State of Florida.** | Existing | DMV | Florida Department of Highway Safety and Motor Vehicles | **Added element for “FDOT District 7 Gateway Expressway” Project.** |
| **HART GIS System** | **Cloud-based GIS platform that would include HART bus stops images and information.** | Planned | Map Update System | Hillsborough Area Regional Transit Authority(HART) | **Added element for “HART GIS” Project.** |
| **Hillsborough County Maintenance and Construction Management System** | **The Hillsborough County Maintenace and Construction Management System control and manages ITS equipment in the workzone and uses data from them for improving traffic operations in the workzone.** | Planned | Maintenance and Construction Management Center | Hillsborough County PWD | **Added element for “Hillsborough County Smart Work Zone System” project.**  2 typos in name. No interconnected systems or flows? (Carla Holmes/Gresham Smith).  **This is an element defined in a project and has interfaces identified in the associated project architecture. Corrected typos in name**. |
| **Hillsborough County MPO Transportation Data and Analytics System** | **Transportation Data and Analytics system that will provide contextual transportation analytics and data, including real-time and archived traffic information from Here Technologies. The platform would help agencies in the Hillsborough County make the best traffic operations and planning decisions in an intuitive and easy-to-use interface.** | Planned | Archived Data System, Center, Traffic Management Center, Transportation Information Center, Other Transportation Information Center | Hillsborough MPO | **Added element for “Hillsborough County MPO Data and Analytics Platform” project.** |
| Private Fleet Vehicle Dispatch Systems | Charter bus fleets, major truck fleet operators, taxi services, limo services, etc. that operate in Florida. Note that the dispatch may actually be outside the state. | Existing | Fleet and Freight Management Center | Private Commercial Vehicle and Fleet Operators | **Revised description to include Coast Bike Share services in the City of Tampa.** |
| Regional Smart Card | A card used by a traveler to pay for transportation-related services (e.g., parking fees, transit fares, traveler services). | Existing | Payment Device, Traveler Card | Travelers | Recommended Element Name change to~~“Regional Smart Card~~ Flamingo Fare”.  **No change necessary as Regional Smart Card is used across the region.** |
| PSTA DART Operations | Paratransit operations for PSTA. Contracted out. | Planned | Transit Management Center | Pinellas Suncoast Transit Authority | Change element status to existing.  **Revised status.** |
| PSTA Field Equipment | Represents field equipment deployed by PSTA, including CCTV and other security monitoring equipment. | Planned | Security Monitoring Equipment | Pasco County Public Transportation | Change element status to existing.  **Revised status.** |
| **PSTA Integrated Fare Payment Application** | **The Integrated Fare Payment Application will be an open source application that will provide a single secure and reliable mobile payment option for various modes of transportation and for different agencies in the Tampa Bay Area. It will allow travelers of PSTA Transit, HART, ride hailing services (Uber, Lyft), shared transportation (Coast Ride Share, Scooter) services, Ferry (Clearwater, Cross Bay) to make payment for their service.** | Planned | Payment Administration Center, Traveler Support Equipment | Pinellas Suncoast Transit Authority | **Added element for “PSTA Fare Integration” project.** |
| **PSTA Intermodal Center** | **Pinellas Suncoast Transit Authority (PSTA) intermodal centers (Gateway, Clearwater etc.) which will provide PSTA's bus transfer and multimodal (bicycle, pedestrian, ride-hailing/taxi, ferry etc.) connection services.** | Planned | Transit Management Center, Alternate Mode Transportation Center | Pinellas Suncoast Transit Authority | **Added element for “PSTA Intermodal Centers” project.** |
| Private Sector Traveler Information Services | Private Information Service Providers of traveler information e.g. SmartGuide, SmartRoutes, Shadow Traffic, MetroNetworks, TraffiCenter, etc. | Existing | Transportation Information Center | Private Sector ISPs | **Revised element name to “Private Traveler Information Services”. Revised description to “Private information services of traveler information.”** |
| **THEA CAV Field Equipment** | **Tampa Hillsborough Expressway Authority (THEA) CAV Field Equipment represents the Connected and Autonomous Vehicle (CAV) field equipment deployed for the Tampa Hillsborough Connected Vehicle Pilot project. This equipment will interface to statewide CAV systems that are required for administrative, security, credentialing, or other support purposes.** | Planned | Connected Vehicle Roadside Equipment, Field, ITS Object, ITS Roadway Equipment | Tampa Hillsborough Expressway Authority | **Added element for “Tampa Hillsborough Expressway Authority (THEA) Connected Vehicle (CV) Pilot” project.** |
| TIA Field Equipment | Represents ITS field equipment, such as DMS, operated by Tampa International Airport. | Existing | ITS Roadway Equipment | Hillsborough County Aviation Authority | Suggest spelling out Tampa International Airport instead of TIA like the other elements. For consistency and to be clearer that they are related elements. (Carla Holmes /Gresham Smith).  **Revised element name.** |
| US Coast Guard Office | Represents US Coast Guard Offices throughout the state. | Existing | Emergency Management Center | US Coast Guard | **Revised element name to “US Coast Guard Security System”. Mapped element to Traffic Management Center Physical Object.** |

## Service Packages

The service package changes include name revisions, new services, and service removal to simplify the District 7 RITSA.

The stakeholder inputs gathered from the Initial Review Meeting, as well as other inputs gathered from numerous stakeholder interactions are provided in the tables below. Table 3 provides the disposition of the original services. In the table, the services from the current RITSA are identified and the new services are described. An overarching change was the renaming of all of the services. The original service names were cryptic and it was not readily apparent what they entailed. To more closely map the District 7 RITSA to the Architecture Reference for Cooperative and Intelligent Transportation (ARC-IT), the ARC-IT service numbering was used as part of the service name revision. Table 4 provides service package added as a result of Stakeholder review of Draft Major District 7 RITSA Update. Table 5 provides a list of services that were added during the definition of new projects and the update of existing projects in the RITSA.

Table 3 Former District 7 RITSA Service Revisions

| **Former Service Name** | **Former Service Description** | **New Service** | **New Service Name** | **Action Taken** |
| --- | --- | --- | --- | --- |
| AD1-1\_D7 | HART Data Archive | **DM01** | **ITS Data Warehouse (HART Data Archive)** | **Renamed Service.** |
| AD2-1\_D7 | Regional Transportation Data Archive Management System (1 of 2) | **DM01** | **ITS Data Warehouse (Regional Transportation Data Archive Management System 1 of 2)** | **Renamed Service.** |
| AD2-2\_D7 | Regional Transportation Data Archive Management System (2 of 2) | **DM01** | **ITS Data Warehouse (Regional Transportation Data Archive Management System 2 of 2)** | **Renamed Service.** |
| AD2-3\_D7 | County Data Collection System | **DM01** | **ITS Data Warehouse (County Data Collection System)** | **Renamed Service.** |
| AD2-4\_D7 | SunGuide Data Archiving | **DM01** | **ITS Data Warehouse (SunGuide Data Archiving)** | **Renamed Service.** |
| APTS01-01\_D7 | HART Transit System | **PT01** | **Transit Vehicle Tracking (HART Transit)** | **Renamed Service.** |
| APTS01-02\_D7 | Pasco Dispatch | **PT01** | **Transit Vehicle Tracking (PCPT)** | **Renamed Service.** |
| APTS01-03\_D7 | Pinellas Suncoast Transit Authority | **PT01** | **Transit Vehicle Tracking (Pinellas Suncoast Transit Authority)** | **Renamed Service.** |
| APTS01-04\_D7 | School District Transportation Dispatch | **PT01** | **Transit Vehicle Tracking (School District Transportation)** | **Renamed Service.** |
| APTS01-05\_D7 | TransHernando Transit | **PT01** | **Transit Vehicle Tracking (TransHernando Transit)** | **Renamed Service.** |
| APTS01-06\_D7 | Hernando Express Transit | **PT01** | **Transit Vehicle Tracking (Hernando Express Transit)** | **Renamed Service.** |
| APTS01-07\_D7 | Citrus County Transit | **PT01** | **Transit Vehicle Tracking (Citrus County Transit)** | **Renamed Service.** |
| APTS02-01\_D7 | HART Transit | **PT02** | **Transit Fixed-Route Operations (HART Transit)** | **Renamed Service.** |
| APTS02-02\_D7 | PSTA | **PT02** | **Transit Fixed-Route Operations (Pinellas Suncoast Transit Authority)** | **Renamed Service.** |
| APTS02-03\_D7 | PCPT | **PT02** | **Transit Fixed-Route Operations (PCPT)** | **Renamed Service.** |
| APTS02-04\_D7 | School Districts | **PT02** | **Transit Fixed-Route Operations (School District Transportation)** | **Renamed Service.** |
| APTS02-05\_D7 | Hernando Express | **PT02** | **Transit Fixed-Route Operations (Hernando Express Transit)** | **Renamed Service.** |
| APTS02-06\_D7 | TECO Street Car | **PT02** | **Transit Fixed-Route Operations (TECO Street Car)** | **Renamed Service.** |
| APTS03-01\_D7 | HART Transit | **PT03** | **Dynamic Transit Operations (HART Transit)** | **Renamed Service.** |
| APTS03-02\_D7 | PSTA Dial-A-Ride Transit (DART) | **PT03** | **Dynamic Transit Operations (PSTA Dial-A-Ride Transit (DART))** | **Renamed Service.** |
| APTS03-03\_D7 | Pasco County Transit | **PT03** | **Dynamic Transit Operations (PCPT)** | **Renamed Service.** |
| APTS03-04\_D7 | TransHernando Transit | **PT03** | **Dynamic Transit Operations (TransHernando Transit)** | **Renamed Service.** |
| APTS03-05\_D7 | Citrus Transit | **PT03** | **Dynamic Transit Operations (Citrus Transit)** | **Renamed Service.** |
| APTS04-01\_D7 | HART Transit System | **PT04** | **Transit Fare Collection Management (HART Transit)** | **Renamed Service.** |
| APTS04-02\_D7 | Pinellas Suncoast Transit Authority | **PT04** | **Transit Fare Collection Management (Pinellas Suncoast Transit Authority)** | **Renamed Service.** |
| APTS04-03\_D7 | Pasco County Transit Authority | **PT04** | **Transit Fare Collection Management (PCPT)** | **Renamed Service.** |
| APTS05-01\_D7 | HART Transit | **PT05** | **Transit Security (HART Transit)** | **Renamed Service.** |
| APTS05-02\_D7 | PSTA Transit Management Center | **PT05** | **Transit Security (PSTA Transit Management Center)** | **Renamed Service.** |
| APTS05-03\_D7 | PSTA Transit Management Center | **PT05** | **Transit Security (PCPT Transit Management Center)** | **Renamed Service.** |
| APTS05-04\_D7 | School Districts | **PT05** | **Transit Security (School Districts Transportation)** | **Renamed Service.** |
| APTS05-05\_D7 | TECO Street Car | **PT05** | **Transit Security (TECO Street Car)** | **Renamed Service.** |
| APTS06-01\_D7 | HART Transit/ PSTA Transit | **PT06** | **Transit Fleet Management (HART Transit/ PSTA Transit)** | **Renamed Service.** |
| APTS06-02\_D7 | PCPT/ School Districts | **PT06** | **Transit Fleet Management (PCPT/ School Districts Transportation)** | **Renamed Service.** |
| APTS07-01\_D7 | Transit Schedule Coordination - HART | **PT14** | **Multi-modal Coordination (Transit Schedule Coordination - HART)** | **Renamed Service.** |
| APTS07-02\_D7 | Transit Schedule Coordination - Pinellas County Suncoast Transit Authority | **PT14** | **Multi-modal Coordination (Transit Schedule Coordination - PSTA)** | **Renamed Service.** |
| APTS07-03\_D7 | Transit Schedule Coordination - PCPT | **PT14** | **Multi-modal Coordination (Transit Schedule Coordination - PCPT)** | **Renamed Service.** |
| APTS08-1\_D7 | Hartline Transit | **PT08** | **Transit Traveler Information (HART Transit)** | **Renamed Service.** |
| APTS08-2\_D7 | Pinellas Suncoast Transit Authority | **PT08** | **Transit Traveler Information (Pinellas Suncoast Transit Authority)** | **Renamed Service.** |
| APTS08-3\_D7 | Pasco County Public Transit | **PT08** | **Transit Traveler Information (PCPT)** | **Renamed Service.** |
| APTS09-1\_D7 | HART Transit/ City of Tampa | **PT09** | **Transit Signal Priority (HART Transit/ City of Tampa)** | **Renamed Service.** |
| APTS09-2\_D7 | HART Transit/ Hillsborough County | **PT09** | **Transit Signal Priority (HART Transit/ Hillsborough County)** | **Renamed Service.** |
| APTS09-3\_D7 | TECO Street Car/ City of Tampa | **PT09** | **Transit Signal Priority (TECO Street Car/ City of Tampa)** | **Renamed Service.** |
| APTS09-4\_D7 | PSTA/ Pinellas County | **PT09** | **Transit Signal Priority (PSTA/ Pinellas County)** | **Renamed Service.** |
| APTS09-5\_D7 | PSTA/ City of Clearwater | **PT09** | **Transit Signal Priority (PSTA/ City of Clearwater)** | **Renamed Service.** |
| APTS09-7\_D7 | PCPT | **PT09** | **Transit Signal Priority (PCPT)** | **Renamed Service.** |
| APTS10-1 | HART | **PT07** | **Transit Passenger Counting (HART)** | **Renamed Service.** |
| ATIS01-01\_D7 | Florida 511 (Inputs) | **TI01** | **Broadcast Traveler Information (Florida 511 Inputs)** | **Renamed Service.** |
| ATIS01-02\_D7 | Florida 511 (Outputs) | **TI01** | **Broadcast Traveler Information (Florida 511 Outputs)** | **Renamed Service.** |
| ATIS02-01\_D7 | Florida 511 Coordination | **TI02** | **Personalized Traveler Information (Florida 511 Coordination)** | **Renamed Service.** |
| ATIS05-01\_D7 | Florida 511/ Private Traveler Info Services | **TI04** | **Infrastructure-Provided Trip Planning and Route Guidance (Florida 511/ Private Traveler Info Services)** | **Renamed Service.** |
| ATIS08-01\_D7 | Bay Area Commuter Services Rideshare Network | **TI06** | **Dynamic Ridesharing and Shared Use Transportation (Bay Area Commuter Services Rideshare Network)** | **Renamed Service.** |
| ATMS01-01\_D7 | FDOT District 7 | **TM01** | **Infrastructure-Based Traffic Surveillance (FDOT District 7)** | **Renamed Service.** |
| ATMS01-02\_D7 | Hillsborough County | **TM01** | **Infrastructure-Based Traffic Surveillance (Hillsborough County)** | **Renamed Service.** |
| ATMS01-03\_D7 | Hernando County | **TM01** | **Infrastructure-Based Traffic Surveillance (Hernando County)** | **Renamed Service.** |
| ATMS01-04\_D7 | Pinellas County | **TM01** | **Infrastructure-Based Traffic Surveillance (Pinellas County)** | **Renamed Service.** |
| ATMS01-05\_D7 | Pasco County | **TM01** | **Infrastructure-Based Traffic Surveillance (Pasco County)** | **Renamed Service.** |
| ATMS01-06\_D7 | Plant City | **TM01** | **Infrastructure-Based Traffic Surveillance (Plant City)** | **Renamed Service.** |
| ATMS01-07\_D7 | City of Clearwater | **TM01** | **Infrastructure-Based Traffic Surveillance (City of Clearwater)** | **Renamed Service.** |
| ATMS01-08\_D7 | City of St. Petersburg | **TM01** | **Infrastructure-Based Traffic Surveillance (City of St. Petersburg)** | **Renamed Service.** |
| ATMS01-09\_D7 | City of Tampa | **TM01** | **Infrastructure-Based Traffic Surveillance (City of Tampa)** | **Renamed Service.** |
| ATMS01-10\_D7 | County and Municipal Systems | **TM01** | **Infrastructure-Based Traffic Surveillance (County and Municipal Systems)** | **Renamed Service.** |
| ATMS01-11\_D7 | I-4 District 7 | **TM01** | **Infrastructure-Based Traffic Surveillance (I-4 District 7)** | **Renamed Service.** |
| ATMS02-1\_D7 | FDOT District 7 | **TM02** | **Vehicle-Based Traffic Surveillance (FDOT District 7)** | **Renamed Service.** |
| ATMS02-2\_D7 | Pinellas County | **TM02** | **Vehicle-Based Traffic Surveillance (Pinellas County)** | **Renamed Service.** |
| ATMS03-01\_D7 | Citrus County Traffic Engineering Division | **TM03** | **Traffic Signal Control (Citrus County Traffic Engineering Division)** | **Renamed Service.** |
| ATMS03-02\_D7 | City of Clearwater | **TM03** | **Traffic Signal Control (City of Clearwater)** | **Renamed Service.** |
| ATMS03-03\_D7 | FDOT District 7 | **TM03** | **Traffic Signal Control (FDOT District 7)** | **Renamed Service.** |
| ATMS03-04\_D7 | Hernando County | **TM03** | **Traffic Signal Control (Hernando County)** | **Renamed Service.** |
| ATMS03-05\_D7 | Hillsborough County | **TM03** | **Traffic Signal Control (Hillsborough County)** | **Renamed Service.** |
| ATMS03-06\_D7 | Pasco County | **TM03** | **Traffic Signal Control (Pasco County)** | **Renamed Service.** |
| ATMS03-07\_D7 | Pinellas County | **TM03** | **Traffic Signal Control (Pinellas County)** | **Renamed Service.** |
| ATMS03-08\_D7 | Plant City | **TM03** | **Traffic Signal Control (Plant City)** | **Renamed Service.** |
| ATMS03-09\_D7 | St. Petersburg | **TM03** | **Traffic Signal Control (City of St. Petersburg)** | **Renamed Service.** |
| ATMS03-10\_D7 | City of Tampa | **TM03** | **Traffic Signal Control (City of Tampa)** | **Renamed Service.** |
| ATMS04-1\_D7 | FDOT District 7 | **TM05** | **Traffic Metering (FDOT District 7)** | **Renamed Service.** |
| ATMS05-1\_D7 | FDOT District 7 | **ST06** | **HOV/HOT Lane Management (FDOT District 7)** | **Renamed Service.** |
| ATMS06-01\_D7 | FDOT District 7 (1 of 2) | **TM06** | **Traffic Information Dissemination (FDOT District 7 1 of 2)** | **Renamed Service.** |
| ATMS06-02\_D7 | FDOT District 7 (2 of 2) | **TM06** | **Traffic Information Dissemination (FDOT District 7 2 of 2)** | **Renamed Service.** |
| ATMS06-03\_D7 | Hernando County (1 of 2) | **TM06** | **Traffic Information Dissemination (Hernando County 1 of 2)** | **Renamed Service.** |
| ATMS06-04\_D7 | Hernando County (2 of 2) | **TM06** | **Traffic Information Dissemination (Hernando County 2 of 2)** | **Renamed Service.** |
| ATMS06-05\_D7 | Hillsborough County (1 of 2) | **TM06** | **Traffic Information Dissemination (Hillsborough County 1 of 2)** | **Renamed Service.** |
| ATMS06-06\_D7 | Hillsborough County (2 of 2) | **TM06** | **Traffic Information Dissemination (Hillsborough County 2 of 2)** | **Renamed Service.** |
| ATMS06-07\_D7 | Pasco County (1 of 2) | **TM06** | **Traffic Information Dissemination (Pasco County 1 of 2)** | **Renamed Service.** |
| ATMS06-08\_D7 | Pasco County (2 of 2) | **TM06** | **Traffic Information Dissemination (Pasco County 2 of 2)** | **Renamed Service.** |
| ATMS06-09\_D7 | Pinellas County (1 of 2) | **TM06** | **Traffic Information Dissemination (Pinellas County 1 of 2)** | **Renamed Service.** |
| ATMS06-10\_D7 | Pinellas County (2 of 2) | **TM06** | **Traffic Information Dissemination (Pinellas County 2 of 2)** | **Renamed Service.** |
| ATMS06-11\_D7 | Plant City (1 of 2) | **TM06** | **Traffic Information Dissemination (Plant City 1 of 2)** | **Renamed Service.** |
| ATMS06-12\_D7 | Plant City (2 of 2) | **TM06** | **Traffic Information Dissemination (Plant City 2 of 2)** | **Renamed Service.** |
| ATMS06-13\_D7 | St. Petersburg (1 of 2) | **TM06** | **Traffic Information Dissemination (St. Petersburg 1 of 2)** | **Renamed Service.** |
| ATMS06-14\_D7 | St. Petersburg (2 of 2) | **TM06** | **Traffic Information Dissemination (St. Petersburg 2 of 2)** | **Renamed Service.** |
| ATMS06-15\_D7 | City of Tampa (1 of 2) | **TM06** | **Traffic Information Dissemination (City of Tampa 1 of 2)** | **Renamed Service.** |
| ATMS06-16\_D7 | City of Tampa (2 of 2) | **TM06** | **Traffic Information Dissemination (City of Tampa 2 of 2)** | **Renamed Service.** |
| ATMS06-17\_D7 | City of Clearwater (1 of 2) | **TM06** | **Traffic Information Dissemination (City of Clearwater 1 of 2)** | **Renamed Service.** |
| ATMS06-18\_D7 | City of Clearwater (2 of 2) | **TM06** | **Traffic Information Dissemination (City of Clearwater 2 of 2)** | **Renamed Service.** |
| ATMS06-19\_D7 | Tampa International Airport Parking Information | **TM06** | **Traffic Information Dissemination (Tampa International Airport Parking Information)** | **Renamed Service.** |
| ATMS06-20\_D7 | I-4 District 7 | **TM06** | **Traffic Information Dissemination (I-4 District 7)** | **Renamed Service.** |
| ATMS07-1\_D7 | FDOT Statewide ITS WAN/C2C Infrastructure | **TM07** | **Regional Traffic Management (FDOT Statewide ITS WAN/C2C Infrastructure)** | **Renamed Service.** |
| ATMS07-2\_D7 | FDOT District 7 | **TM07** | **Regional Traffic Management (FDOT District 7)** | **Renamed Service.** |
| ATMS07-3\_D7 | City of Tampa | **TM07** | **Regional Traffic Management (City of Tampa)** | **Renamed Service.** |
| ATMS07-4\_D7 | City of Clearwater | **TM07** | **Regional Traffic Management (City of Clearwater)** | **Renamed Service.** |
| ATMS07-5\_D7 | Hernando/Citrus County | **TM07** | **Regional Traffic Management (Hernando/Citrus County)** | **Renamed Service.** |
| ATMS07-6\_D7 | Hillsborough County | **TM07** | **Regional Traffic Management (Hillsborough County)** | **Renamed Service.** |
| ATMS07-7\_D7 | Pinellas County (1 of 2) | **TM07** | **Regional Traffic Management (Pinellas County 1 of 2)** | **Renamed Service.** |
| ATMS07-8\_D7 | Pinellas County (2 of 2) | **TM07** | **Regional Traffic Management (Pinellas County 2 of 2)** | **Renamed Service.** |
| ATMS07-9\_D7 | Plant City | **TM07** | **Regional Traffic Management (Plant City)** | **Renamed Service.** |
| ATMS08-01\_D7 | Counties (TM to EM) | **PS02** | **Emergency Response (Counties TM to EM)** | **Renamed Service.** |
| ATMS08-01\_D7-2 | Counties (TM to EM) | **TM08** | **Traffic Incident Management System (Counties TM to EM)** | **Renamed Service.** |
| ATMS08-02\_D7 | Hillsborough County (TM to EM) | **PS02** | **Emergency Response (Hillsborough County TM to EM)** | **Renamed Service.** |
| ATMS08-02\_D7-2 | Hillsborough County (TM to EM) | **TM08** | **Traffic Incident Management System (Hillsborough County TM to EM)** | **Renamed Service.** |
| ATMS08-03\_D7 | Pasco County (TM to EM - 1 of 2) | **PS02** | **Emergency Response (Pasco County TM to EM - 1 of 2)** | **Renamed Service.** |
| ATMS08-03\_D7-2 | Pasco County (TM to EM - 1 of 2) | **TM08** | **Traffic Incident Management System (Pasco County TM to EM 1 of 2)** | **Renamed Service.** |
| ATMS08-04\_D7 | Pasco County (TM to EM - 2 of 2) | **PS02** | **Emergency Response (Pasco County TM to EM - 2 of 2)** | **Renamed Service.** |
| ATMS08-04\_D7-2 | Pasco County (TM to EM - 2 of 2) | **TM08** | **Traffic Incident Management System (Pasco County TM to EM 2 of 2)** | **Renamed Service.** |
| ATMS08-05\_D7 | Pinellas County (TM to EM) | **PS02** | **Emergency Response (Pinellas County TM to EM)** | **Renamed Service.** |
| ATMS08-05\_D7-2 | Pinellas County (TM to EM) | **TM08** | **Traffic Incident Management System (Pinellas County TM to EM)** | **Renamed Service.** |
| ATMS08-06\_D7 | Tampa (TM to EM) | **PS02** | **Emergency Response (Tampa TM to EM)** | **Renamed Service.** |
| ATMS08-06\_D7-2 | Tampa (TM to EM) | **TM08** | **Traffic Incident Management System (City of Tampa TM to EM)** | **Renamed Service.** |
| ATMS08-07\_D7 | St. Petersburg (TM to EM) | **PS02** | **Emergency Response (St. Petersburg TM to EM)** | **Renamed Service.** |
| ATMS08-07\_D7-2 | St. Petersburg (TM to EM) | **TM08** | **Traffic Incident Management System (City of St. Petersburg TM to EM)** | **Renamed Service.** |
| ATMS08-08\_D7 | City of Clearwater (TM to EM) | **PS02** | **Emergency Response (City of Clearwater TM to EM)** | **Renamed Service.** |
| ATMS08-08\_D7-2 | City of Clearwater (TM to EM) | **TM08** | **Traffic Incident Management System (City of Clearwater TM to EM)** | **Renamed Service.** |
| ATMS08-09\_D7 | City of Plant City (TM to EM) | **PS02** | **Emergency Response (City of Plant City TM to EM)** | **Renamed Service.** |
| ATMS08-09\_D7-2 | City of Plant City (TM to EM) | **TM08** | **Traffic Incident Management System (City of Plant City TM to EM)** | **Renamed Service.** |
| ATMS08-10\_D7 | FDOT District 7 (TM to EM) | **PS02** | **Emergency Response (FDOT District 7 TM to EM)** | **Renamed Service.** |
| ATMS08-10\_D7-2 | FDOT District 7 (TM to EM) | **TM08** | **Traffic Incident Management System (FDOT District 7 TM to EM)** | **Renamed Service.** |
| ATMS08-11\_D7 | County Emergency Operations Center (TM to EM) | **PS02** | **Emergency Response (County Emergency Operations Center TM to EM)** | **Renamed Service.** |
| ATMS08-11\_D7-2 | County Emergency Operations Center (TM to EM) | **TM08** | **Traffic Incident Management System (County Emergency Operations Center TM to EM)** | **Renamed Service.** |
| ATMS08-12\_D7 | (Transit to EM) | **PS02** | **Emergency Response (Transit to EM)** | **Renamed Service.** |
| ATMS08-12\_D7-2 | (Transit to EM) | **TM08** | **Traffic Incident Management System (Transit to EM)** | **Renamed Service.** |
| ATMS08-13\_D7 | Transit to Traffic | **PS02** | **Emergency Response (Transit to Traffic)** | **Renamed Service.** |
| ATMS08-13\_D7-2 | Transit to Traffic | **TM08** | **Traffic Incident Management System (Transit to Traffic)** | **Renamed Service.** |
| ATMS08-14\_D7 | Counties (TM to MCM) | **PS02** | **Emergency Response (Counties TM to MCM)** | **Renamed Service.** |
| ATMS08-14\_D7-2 | Counties (TM to MCM) | **TM08** | **Traffic Incident Management System (Counties TM to MCM)** | **Renamed Service.** |
| ATMS08-15\_D7 | Municipalities (TM to MCM) | **PS02** | **Emergency Response (Municipalities TM to MCM)** | **Renamed Service.** |
| ATMS08-15\_D7-2 | Municipalities (TM to MCM) | **TM08** | **Traffic Incident Management System (Municipalities TM to MCM)** | **Renamed Service.** |
| ATMS08-16\_D7 | FDOT District 7 (TM to MCM) | **PS02** | **Emergency Response (FDOT District 7 TM to MCM)** | **Renamed Service.** |
| ATMS08-16\_D7-2 | FDOT District 7 (TM to MCM) | **TM08** | **Traffic Incident Management System (FDOT District 7 TM to MCM)** | **Renamed Service.** |
| ATMS08-17\_D7 | Florida Turnpike Enterprise Maintenance | **PS02** | **Emergency Response (Florida Turnpike Enterprise Maintenance)** | **Renamed Service.** |
| ATMS08-17\_D7-2 | Florida Turnpike Enterprise Maintenance | **TM08** | **Traffic Incident Management System (Florida Turnpike Enterprise Maintenance)** | **Renamed Service.** |
| ATMS08-18\_D7 | County and Local Maintenance | **PS02** | **Emergency Response (County and Local Maintenance)** | **Renamed Service.** |
| ATMS08-18\_D7-2 | County and Local Maintenance | **TM08** | **Traffic Incident Management System (County and Local Maintenance)** | **Renamed Service.** |
| ATMS08-19\_D7 | FDOT Districts | **PS02** | **Emergency Response (FDOT Districts)** | **Renamed Service.** |
| ATMS08-19\_D7-2 | FDOT Districts | **TM08** | **Traffic Incident Management System (FDOT Districts)** | **Renamed Service.** |
| ATMS08-20\_D7 | County and City Maintenance | **PS02** | **Emergency Response (County and City Maintenance)** | **Renamed Service.** |
| ATMS08-20\_D7-2 | County and City Maintenance | **TM08** | **Traffic Incident Management System (County and City Maintenance)** | **Renamed Service.** |
| ATMS08-21\_D7 | Local Public Safety (EM to EVS) (1 of 3) | **PS02** | **Emergency Response (Local Public Safety)** | **Renamed Service.** |
| ATMS08-21\_D7-2 | Local Public Safety (EM to EVS) (1 of 3) | **TM08** | **Traffic Incident Management System (Local Public Safety EM to EVS 1 of 3)** | **Renamed Service.** |
| ATMS08-22\_D7 | Florida Highway Patrol and Emergency Medical (EM to EVS) (2 of 3) | **PS02** | **Emergency Response (Florida Highway Patrol and Emergency Medical)** | **Renamed Service.** |
| ATMS08-22\_D7-2 | Florida Highway Patrol and Emergency Medical (EM to EVS) (2 of 3) | **TM08** | **Traffic Incident Management System (Local Public Safety EM to EVS 2 of 3)** | **Renamed Service.** |
| ATMS08-23\_D7 | County Public Safety (EM to EVS) (3 of 3) | **PS02** | **Emergency Response (County Public Safety)** | **Renamed Service.** |
| ATMS08-23\_D7-2 | County Public Safety (EM to EVS) (3 of 3) | **TM08** | **Traffic Incident Management System (Local Public Safety EM to EVS 3 of 3)** | **Renamed Service.** |
| ATMS09-1\_D7 | Dynamic Express Lane Tolling | **TM09** | **Integrated Decision Support and Demand Management (Dynamic Express Lane Tolling)** | **Renamed Service.** |
| ATMS09-2\_D7 | FDOT District 5 Integrated Corridor Management | **TM09** | **Integrated Decision Support and Demand Management (FDOT District 5 Integrated Corridor Management)** | **Renamed Service.** |
| ATMS10-1\_D7 | Tampa Hillsborough Expressway | **TM10** | **Electronic Toll Collection (Tampa Hillsborough Expressway)** | **Renamed Service.** |
| ATMS10-2\_D7 | Express Lane Tolling | **TM10** | **Electronic Toll Collection (Express Lane Tolling)** | **Renamed Service.** |
| ATMS10-3\_D7 | Florida Statewide Tolling | **TM10** | **Electronic Toll Collection (Florida Statewide Tolling)** | **Renamed Service.** |
| ATMS11-01\_D7 | Environmental Protection Commission of Hillsborough County | **ST01** | **Emissions Monitoring (Environmental Protection Commission of Hillsborough County)** | **Renamed Service.** |
| ATMS11-02\_D7 | Pinellas Department of Environmental Management | **ST01** | **Emissions Monitoring (Pinellas Department of Environmental Management)** | **Renamed Service.** |
| ATMS13-01\_D7 | Citrus County, Hernando County, Hillsborough County | **TM13** | **Standard Railroad Grade Crossing (Citrus County /Hernando County/ Hillsborough County)** | **Renamed Service.** |
| ATMS13-02\_D7 | Pasco County, and Pinellas County | **TM13** | **Standard Railroad Grade Crossing (Pasco County /Pinellas County)** | **Renamed Service.** |
| ATMS13-03\_D7 | Clearwater and Plant City | **TM13** | **Standard Railroad Grade Crossing (City of Clearwater/City of Plant City)** | **Renamed Service.** |
| ATMS13-04\_D7 | City of Tampa | **TM13** | **Standard Railroad Grade Crossing (City of Tampa)** | **Renamed Service.** |
| ATMS15-01\_D7 | Counties | **TM15** | **Railroad Operations Coordination (Counties)** | **Renamed Service.** |
| ATMS16-01\_D7 | Private/Public Parking Facilities | **PM01** | **Parking Space Management (Private/Public Parking Facilities)** | **Renamed Service.** |
| ATMS16-01\_D7-2 | Private/Public Parking Facilities | **PM03** | **Parking Electronic Payment (Private/Public Parking Facilities)** | **Renamed Service.** |
| ATMS16-02\_D7 | Tampa International Airport Parking Facilities | **PM01** | **Parking Space Management (Tampa International Airport Parking Facilities)** | **Renamed Service.** |
| ATMS16-02\_D7-2 | Tampa International Airport Parking Facilities | **PM03** | **Parking Electronic Payment (Tampa International Airport Parking Facilities)** | **Renamed Service.** |
| ATMS17-1\_D7 | Private/Public Parking Facilities | **PM04** | **Regional Parking Management (Private/Public Parking Facilities)** | **Renamed Service.** |
| ATMS17-2\_D7 | Tampa International Airport Parking Facilities | **PM04** | **Regional Parking Management (Tampa International Airport Parking Facilities)** | **Renamed Service.** |
| ATMS17-3\_D7 | FDOT CV Parking | **PM04** | **Regional Parking Management (FDOT Commercial Vehicle Parking)** | **Renamed Service.** |
| ATMS18-1\_D7 | City of Tampa | **TM16** | **Reversible Lane Management (City of Tampa)** | **Renamed Service.** |
| ATMS18-2\_D7 | FDOT District 7 | **TM16** | **Reversible Lane Management (FDOT District 7)** | **Renamed Service.** |
| ATMS18-3\_D7 | Wrong Way Vehicle Detection - Connected Vehicle FDOT District 7 | **TM16** | **Reversible Lane Management (Wrong Way Vehicle Detection - Connected Vehicle FDOT District 7)** | **Renamed Service.** |
| ATMS21-1\_D7 | FDOT District | **TM19** | **Roadway Closure Management (FDOT District)** | **Renamed Service.** |
| ATMS24-1\_D7 | FDOT Wrong-Way Driving | **TM12** | **Dynamic Roadway Warning (FDOT Wrong-Way Driving)** | **Renamed Service.** |
| ATMS24-2\_D7 | Connected Vehicle Wrong Way Driving | **TM12** | **Dynamic Roadway Warning (Connected Vehicle Wrong Way Driving)** | **Renamed Service.** |
| AVSS05-01\_D7 | (Connected Vehicle) | **VS13** | **Intersection Safety Warning and Collision Avoidance (Pinellas County)** | **Renamed Service.** |
| AVSS05-02\_D7 | FDOT | **VS13** | **Intersection Safety Warning and Collision Avoidance (FDOT District 7)** | **Renamed Service.** |
| AVSS10-1\_D7 | FDOT Connected Intersections | **VS13** | **Intersection Safety Warning and Collision Avoidance (FDOT District 7 Connected Intersections)** | **Renamed Service.** |
| AVSS12-1\_D7 | FDOT D7 | **VS02** | **V2V Basic Safety (FDOT District 7)** | **Renamed Service.** |
| AVSS12-1\_D7-2 | FDOT D7 | **VS03** | **Situational Awareness (FDOT District 7)** | **Renamed Service.** |
| AVSS12-2\_D7 | Commercial Vehicle Platooning | **VS02** | **V2V Basic Safety (Commercial Vehicle Platooning)** | **Renamed Service.** |
| AVSS12-2\_D7-2 | Commercial Vehicle Platooning | **VS03** | **Situational Awareness (Commercial Vehicle Platooning)** | **Renamed Service.** |
| CVO10-1\_D7 | West Central Florida | **CVO12** | **HAZMAT Management (West Central Florida)** | **Renamed Service.** |
| CVO11-01\_D7 | Port of Tampa | **CVO13** | **Roadside HAZMAT Security Detection and Mitigation (Port of Tampa)** | **Renamed Service.** |
| EM01-01\_D7 | Regional Incident and Mutual Aid Network (EM to Other EM) | **PS01** | **Emergency Call-Taking and Dispatch (Regional Incident and Mutual Aid Network EM to Other EM)** | **Renamed Service.** |
| EM01-02\_D7 | County Public Safety | **PS01** | **Emergency Call-Taking and Dispatch (County Public Safety)** | **Renamed Service.** |
| EM01-03\_D7 | Local Dispatch | **PS01** | **Emergency Call-Taking and Dispatch (Local Dispatch)** | **Renamed Service.** |
| EM01-04\_D7 | Florida Highway Patrol | **PS01** | **Emergency Call-Taking and Dispatch (Florida Highway Patrol)** | **Renamed Service.** |
| EM02-01\_D7 | Tampa - Local Fire | **PS03** | **Emergency Vehicle Preemption (Tampa - Local Fire)** | **Renamed Service.** |
| EM02-01\_D7-2 | Tampa - Local Fire | **PS01** | **Emergency Call-Taking and Dispatch (Tampa - Local Fire)** | **Renamed Service.** |
| EM02-02\_D7 | City of Clearwater | **PS03** | **Emergency Vehicle Preemption (City of Clearwater)** | **Renamed Service.** |
| EM02-02\_D7-2 | City of Clearwater | **PS01** | **Emergency Call-Taking and Dispatch (City of Clearwater)** | **Renamed Service.** |
| EM02-03\_D7 | City of St. Petersburg | **PS03** | **Emergency Vehicle Preemption (City of St. Petersburg)** | **Renamed Service.** |
| EM02-03\_D7-2 | City of St. Petersburg | **PS01** | **Emergency Call-Taking and Dispatch (City of St. Petersburg)** | **Renamed Service.** |
| EM02-04\_D7 | Plant City | **PS03** | **Emergency Vehicle Preemption (Plant City)** | **Renamed Service.** |
| EM02-04\_D7-2 | Plant City | **PS01** | **Emergency Call-Taking and Dispatch (Plant City)** | **Renamed Service.** |
| EM02-05\_D7 | Pinellas County - Local/County Fire | **PS03** | **Emergency Vehicle Preemption (Pinellas County - Local/County Fire)** | **Renamed Service.** |
| EM02-05\_D7-2 | Pinellas County - Local/County Fire | **PS01** | **Emergency Call-Taking and Dispatch (Pinellas County - Local/County Fire)** | **Renamed Service.** |
| EM02-06\_D7 | Hillsborough County - Local/County Fire | **PS03** | **Emergency Vehicle Preemption (Hillsborough County - Local/County Fire)** | **Renamed Service.** |
| EM02-06\_D7-2 | Hillsborough County - Local/County Fire | **PS01** | **Emergency Call-Taking and Dispatch (Hillsborough County - Local/County Fire)** | **Renamed Service.** |
| EM02-07\_D7 | Pasco County - Local Fire | **PS03** | **Emergency Vehicle Preemption (Pasco County - Local Fire)** | **Renamed Service.** |
| EM02-07\_D7-2 | Pasco County - Local Fire | **PS01** | **Emergency Call-Taking and Dispatch (Pasco County - Local Fire)** | **Renamed Service.** |
| EM02-08\_D7 | Hernando County - Fire | **PS03** | **Emergency Vehicle Preemption (Hernando County - Fire)** | **Renamed Service.** |
| EM02-08\_D7-2 | Hernando County - Fire | **PS01** | **Emergency Call-Taking and Dispatch (Hernando County - Fire)** | **Renamed Service.** |
| EM04-1\_D7 | FDOT District 7 Service Patrol | **PS08** | **Roadway Service Patrols (FDOT District 7 Service Patrol)** | **Renamed Service.** |
| EM04-2\_D7 | I-4 District 7 | **PS08** | **Roadway Service Patrols (I-4 District 7)** | **Renamed Service.** |
| EM05-1\_D7 | FDOT District 7 (1 of 2) | **PS09** | **Transportation Infrastructure Protection (FDOT District 7 1 of 2)** | **Renamed Service.** |
| EM05-2\_D7 | FDOT District 7 (2 of 2) | **PS09** | **Transportation Infrastructure Protection (FDOT District 7 2 of 2)** | **Renamed Service.** |
| EM05-3\_D7 | City of Tampa | **PS09** | **Transportation Infrastructure Protection (City of Tampa)** | **Renamed Service.** |
| EM05-4\_D7 | City of St Petersburg | **PS09** | **Transportation Infrastructure Protection (City of St Petersburg)** | **Renamed Service.** |
| EM06-01\_D7 | Amber/Silver/LEO Alerts | **PS10** | **Wide-Area Alert (Amber/Silver/LEO Alerts)** | **Renamed Service.** |
| EM06-02\_D7 | FDOT District 7 (General Alerts) | **PS10** | **Wide-Area Alert (FDOT District 7- General Alerts)** | **Renamed Service.** |
| EM06-03\_D7 | County EOC (General Alerts) | **PS10** | **Wide-Area Alert (County EOC - General Alerts 1 of 2)** | **Renamed Service.** |
| EM06-04\_D7 | County EOC (General Alerts) | **PS10** | **Wide-Area Alert (County EOC - General Alerts 2 of 2)** | **Renamed Service.** |
| EM07-01\_D7 | County Emergency Operations Center (1 of 3) | **PS11** | **Early Warning System (County Emergency Operations Center 1 of 3)** | **Renamed Service.** |
| EM07-02\_D7 | County Emergency Operations Center (2 of 3) | **PS11** | **Early Warning System (County Emergency Operations Center 2 of 3)** | **Renamed Service.** |
| EM07-03\_D7 | County Emergency Operations Center (3 of 3) | **PS11** | **Early Warning System (County Emergency Operations Center 3 of 3)** | **Renamed Service.** |
| EM08-01\_D7 | County Emergency Operations Center (1 of 3) | **PS12** | **Disaster Response and Recovery (County Emergency Operations Center 1 of 3)** | **Renamed Service.** |
| EM08-02\_D7 | County Emergency Operations Center (2 of 3) | **PS12** | **Disaster Response and Recovery (County Emergency Operations Center 2 of 3)** | **Renamed Service.** |
| EM08-03\_D7 | County Emergency Operations Center (3 of 3) | **PS12** | **Disaster Response and Recovery (County Emergency Operations Center 3 of 3)** | **Renamed Service.** |
| EM09-01\_D7 | County Emergency Operations Center (1 of 3) | **PS13** | **Evacuation and Reentry Management (County Emergency Operations Center 1 of 3)** | **Renamed Service.** |
| EM09-02\_D7 | County Emergency Operations Center (2 of 3) | **PS13** | **Evacuation and Reentry Management (County Emergency Operations Center 2 of 3)** | **Renamed Service.** |
| EM09-03\_D7 | County Emergency Operations Center (3 of 3) | **PS13** | **Evacuation and Reentry Management (County Emergency Operations Center 3 of 3)** | **Renamed Service.** |
| EM09-04\_D7 | FDOT District 7 | **PS13** | **Evacuation and Reentry Management (FDOT District 7)** | **Renamed Service.** |
| EM10-01\_D7 | County Emergency Operations Center (1 of 2) | **PS14** | **Disaster Traveler Information (County Emergency Operations Center 1 of 2)** | **Renamed Service.** |
| EM10-02\_D7 | County Emergency Operations Center (2 of 2) | **PS14** | **Disaster Traveler Information (County Emergency Operations Center 2 of 2)** | **Renamed Service.** |
| EM10-03\_D7 | FDOT District 7 | **PS14** | **Disaster Traveler Information (FDOT District 7)** | **Renamed Service.** |
| MC01-01\_D7 | FDOT District 7 | **MC01** | **Maintenance and Construction Vehicle and Equipment Tracking (FDOT District 7)** | **Renamed Service.** |
| MC01-02\_D7 | County and Municipal Maintenance | **MC01** | **Maintenance and Construction Vehicle and Equipment Tracking (County and Municipal Maintenance)** | **Renamed Service.** |
| MC02-01\_D7 | FDOT District 7 | **MC02** | **Maintenance and Construction Vehicle Maintenance (FDOT District 7)** | **Renamed Service.** |
| MC02-02\_D7 | County and Municipal Maintenance | **MC02** | **Maintenance and Construction Vehicle Maintenance (County and Municipal Maintenance)** | **Renamed Service.** |
| MC03-1\_D7 | FDOT District 7 | **WX01** | **Weather Data Collection (FDOT District 7)** | **Renamed Service.** |
| MC03-2\_D7 | County and Municipal Maintenance | **WX01** | **Weather Data Collection (County and Municipal Maintenance)** | **Renamed Service.** |
| MC03-3\_D7 | Hillsborough County | **WX01** | **Weather Data Collection (Hillsborough County)** | **Renamed Service.** |
| MC03-4\_D7 | City of Tampa | **WX01** | **Weather Data Collection (City of Tampa)** | **Renamed Service.** |
| MC03-5\_D7 | I-4 District 7 | **WX01** | **Weather Data Collection (I-4 District 7)** | **Renamed Service.** |
| MC04-1\_D7 | County and Municipal Maintenance | **WX02** | **Weather Information Processing and Distribution (County and Municipal Maintenance)** | **Renamed Service.** |
| MC04-2\_D7 | Pinellas County | **WX02** | **Weather Information Processing and Distribution (Pinellas County)** | **Renamed Service.** |
| MC04-3\_D7 | I-4 District 7 | **WX02** | **Weather Information Processing and Distribution (I-4 District 7)** | **Renamed Service.** |
| MC04-4\_D7 | FDOT D7 | **WX02** | **Weather Information Processing and Distribution (FDOT District 7)** | **Renamed Service.** |
| MC07-01\_D7 | FDOT District 7 | **MC02** | **Roadway Maintenance and Construction (FDOT District 7)** | **Renamed Service.** |
| MC07-02\_D7 | County and Municipal Maintenance | **MC05** | **Roadway Maintenance and Construction (County and Municipal Maintenance 1 of 2)** | **Renamed Service.** |
| MC07-03\_D7 | County and Municipal Maintenance | **MC05** | **Roadway Maintenance and Construction (County and Municipal Maintenance 2 of 2)** | **Renamed Service.** |
| MC08-01\_D7 | FDOT District 7 | **MC06** | **Work Zone Management (FDOT District 7)** | **Renamed Service.** |
| MC08-02\_D7 | Florida Turnpike Enterprise | **MC06** | **Work Zone Management (Florida Turnpike Enterprise)** | **Renamed Service.** |
| MC08-03\_D7 | County and Municipal Maintenance | **MC06** | **Work Zone Management (County and Municipal Maintenance)** | **Renamed Service.** |
| MC08-04\_D7 | County and City Maintenance | **MC06** | **Work Zone Management (County and City Maintenance)** | **Renamed Service.** |
| MC09-01\_D7 | FDOT District 7 | **MC07** | **Work Zone Safety Monitoring (FDOT District 7)** | **Renamed Service.** |
| MC09-02\_D7 | County and Municipal Maintenance | **MC07** | **Work Zone Safety Monitoring (County and Municipal Maintenance)** | **Renamed Service.** |
| MC10-01\_D7 | FDOT District 7 (1 of 3) | **MC08** | **Maintenance and Construction Activity Coordination (FDOT District 7 1 of 3)** | **Renamed Service.** |
| MC10-02\_D7 | FDOT District 7 (2 of 3) | **MC08** | **Maintenance and Construction Activity Coordination (FDOT District 7 2 of 3)** | **Renamed Service.** |
| MC10-03\_D7 | FDOT District 7 (3 of 3) | **MC08** | **Maintenance and Construction Activity Coordination (FDOT District 7 3 of 3)** | **Renamed Service.** |
| MC10-04\_D7 | County and Municipal Maintenance (1 of 4) | **MC08** | **Maintenance and Construction Activity Coordination (County and Municipal Maintenance 1 of 4)** | **Renamed Service.** |
| MC10-05\_D7 | County and Municipal Maintenance (2 of 4) | **MC08** | **Maintenance and Construction Activity Coordination (County and Municipal Maintenance 2 of 4)** | **Renamed Service.** |
| MC10-06\_D7 | County and Municipal Maintenance (3 of 4) | **MC08** | **Maintenance and Construction Activity Coordination (County and Municipal Maintenance 3 of 4)** | **Renamed Service.** |
| MC10-07\_D7 | County and Municipal Maintenance (4 of 4) | **MC08** | **Maintenance and Construction Activity Coordination (County and Municipal Maintenance 4 of 4)** | **Renamed Service.** |
| MC12-01\_D7 |  | **MC09** | **Infrastructure Monitoring (FDOT District 7)** | **Renamed Service.** |
| MC12-02\_D7 |  | **MC09** | **Infrastructure Monitoring (County and Municipal)** | **Renamed Service.** |

Table 4 added District 7 Services

|  |  |  |  |
| --- | --- | --- | --- |
| **Ref #** | **Source** | **Description** | **Disposition/Action Taken** |
| D7-63 | Draft Major Update Report Review | Kessia Harris (PSTA): Add PSTA/City of St. Petersburg for transit signal priority also. | **Added PT09: Transit Signal Priority (PSTA/ City of St. Petersburg).** |

Table 5 Services added for PRojects

| **Service** | **Service Name** | **Action Taken** |
| --- | --- | --- |
| DM02 | Performance Monitoring (Hillsborough County MPO Data and Analytics) | **New Project Service.** |
| MC05 | Roadway Maintenance and Construction (Hillsborough County C2C Communications) | **New Project Service.** |
| MC06 | Work Zone Management (Hillsborough County Smart WorkZone System) | **New Project Service.** |
| MC07 | Work Zone Safety Monitoring (Hillsborough County Smart WorkZone System) | **New Project Service.** |
| MC08 | Maintenance and Construction Activity Coordination (Hillsborough County C2C Communications) | **New Project Service.** |
| PM01 | Parking Space Management (City of Clearwater Beach Parking Management) | **New Project Service.** |
| PM01 | Parking Space Management (FDOT District 7 TPAS) | **New Project Service.** |
| PM01 | Parking Space Management (Hillsborough County C2C Communications) | **New Project Service.** |
| PS01 | Emergency Call-Taking and Dispatch (City of Tampa ATMS Expansion) | **New Project Service.** |
| PS01 | Emergency Call-Taking and Dispatch (Hillsborough County C2C Communications) | **New Project Service.** |
| PS01 | Emergency Call-Taking and Dispatch (Hillsborough County CV Initiative) | **New Project Service.** |
| PS02 | Emergency Response (FDOT District 7 Port) | **New Project Service.** |
| PS02 | Emergency Response (Hillsborough County C2C Communications) | **New Project Service.** |
| PS02 | Emergency Response (Hillsborough County CV Initiative) | **New Project Service.** |
| PS03 | Emergency Vehicle Preemption (HART BRT Expansion) | **New Project Service.** |
| PS03 | Emergency Vehicle Preemption (Hillsborough County CV Initiative) | **New Project Service.** |
| PS03 | Emergency Vehicle Preemption (Plant City EVP) | **New Project Service.** |
| PS11 | Early Warning System (FDOT District 7 WWD Ramp System Expansion) | **New Project Service.** |
| PS14 | Disaster Traveler Information (Pinellas County Gulf Blvd ATMS) | **New Project Service.** |
| PT04 | Transit Fare Collection Management (Regional Smart Card) | **New Project Service.** |
| PT05 | Transit Security (PSTA Security CCTV) | **New Project Service.** |
| PT09 | Transit Signal Priority (HART Autonomous Transit) | **New Project Service.** |
| PT09 | Transit Signal Priority (HART BRT Expansion) | **New Project Service.** |
| PT09 | Transit Signal Priority (PSTA Bus Rapid Transit) | **New Project Service.** |
| PT09 | Transit Signal Priority (THEA CV Pilot) | **New Project Service.** |
| PT13 | Vehicle Turning Right in Front of a Transit Vehicle (HART Autonomous Transit) | **New Project Service.** |
| PT13 | Vehicle Turning Right in Front of a Transit Vehicle (Hillsborough County CV Initiative) | **New Project Service.** |
| PT13 | Vehicle Turning Right in Front of a Transit Vehicle (THEA CV Pilot) | **New Project Service.** |
| PT14 | Multi-modal Coordination (PSTA Fare Integration) | **New Project Service.** |
| PT14 | Multi-modal Coordination (PSTA Intermodal Centers) | **New Project Service.** |
| PT18 | Integrated Multi-Modal Electronic Payment (PSTA Fare Integration) | **New Project Service.** |
| SU01 | Connected Vehicle System Monitoring and Management (FDOT District 7 ICM) | **New Project Service.** |
| SU01 | Connected Vehicle System Monitoring and Management (HART Autonomous Transit) | **New Project Service.** |
| SU01 | Connected Vehicle System Monitoring and Management (Hillsborough County CV Initiative) | **New Project Service.** |
| SU01 | Connected Vehicle System Monitoring and Management (I-4 FRAME) | **New Project Service.** |
| SU01 | Connected Vehicle System Monitoring and Management (THEA CV Pilot) | **New Project Service.** |
| SU04 | Map Management (I-4 FRAME) | **New Project Service.** |
| SU04 | Map Management (FDOT District 7 ICM) | **New Project Service.** |
| SU04 | Map Management (HART Autonomous Transit) | **New Project Service.** |
| SU04 | Map Management (HART GIS) | **New Project Service.** |
| SU04 | Map Management (Hillsborough County CV Initiative) | **New Project Service.** |
| SU04 | Map Management (THEA CV Pilot) | **New Project Service.** |
| SU08 | Security and Credentials Management (FDOT District 7 ICM) | **New Project Service.** |
| SU08 | Security and Credentials Management (HART Autonomous Transit) | **New Project Service.** |
| SU08 | Security and Credentials Management (Hillsborough County CV Initiative) | **New Project Service.** |
| SU08 | Security and Credentials Management (I-4 FRAME) | **New Project Service.** |
| SU08 | Security and Credentials Management (THEA CV Pilot) | **New Project Service.** |
| TI01 | Broadcast Traveler Information (FDOT District 7 ICM) | **New Project Service.** |
| TI01 | Broadcast Traveler Information (I-4 FRAME) | **New Project Service.** |
| TI06 | Dynamic Ridesharing and Shared Use Transportation (City of Tampa Coast Bike Share/ Scooter) | **New Project Service.** |
| TI07 | In-Vehicle Signage (HART Autonomous Transit) | **New Project Service.** |
| TI07 | In-Vehicle Signage (I-4 FRAME) | **New Project Service.** |
| TI07 | In-Vehicle Signage (Hillsborough County CV Initiative) | **New Project Service.** |
| TI07 | In-Vehicle Signage (THEA CV Pilot) | **New Project Service.** |
| TM01 | Infrastructure-Based Traffic Surveillance (Citrus County Bike Counters) | **New Project Service.** |
| TM01 | Infrastructure-Based Traffic Surveillance (City of Clearwater ITS Devices) | **New Project Service.** |
| TM01 | Infrastructure-Based Traffic Surveillance (City of Tampa ATMS Expansion) | **New Project Service.** |
| TM01 | Infrastructure-Based Traffic Surveillance (FDOT District 7 WWD Ramp Expansion) | **New Project Service.** |
| TM01 | Infrastructure-Based Traffic Surveillance (HART Autonomous Transit) | **New Project Service.** |
| TM01 | Infrastructure-Based Traffic Surveillance (Hillsborough County CV Initiative) | **New Project Service.** |
| TM01 | Infrastructure-Based Traffic Surveillance (I-4 FRAME) | **New Project Service.** |
| TM01 | Infrastructure-Based Traffic Surveillance (THEA CV Pilot) | **New Project Service.** |
| TM02 | Vehicle-Based Traffic Surveillance (FDOT District 7 ICM) | **New Project Service.** |
| TM02 | Vehicle-Based Traffic Surveillance (HART Autonomous Transit) | **New Project Service.** |
| TM02 | Vehicle-Based Traffic Surveillance (Hillsborough County ATMS Program Expansion) | **New Project Service.** |
| TM02 | Vehicle-Based Traffic Surveillance (Hillsborough County CV Initiative) | **New Project Service.** |
| TM02 | Vehicle-Based Traffic Surveillance (I-4 FRAME) | **New Project Service.** |
| TM02 | Vehicle-Based Traffic Surveillance (THEA CV Pilot) | **New Project Service.** |
| TM03 | Traffic Signal Control (HART Autonomous Transit) | **New Project Service.** |
| TM03 | Traffic Signal Control (Hillsborough County CV Initiative) | **New Project Service.** |
| TM03 | Traffic Signal Control (THEA CV Pilot) | **New Project Service.** |
| TM04 | Connected Vehicle Traffic Signal System (FDOT District 7 ICM) | **New Project Service.** |
| TM04 | Connected Vehicle Traffic Signal System (FDOT District 7 US 19 SPaT) | **New Project Service.** |
| TM04 | Connected Vehicle Traffic Signal System (HART Autonomous Transit) | **New Project Service.** |
| TM04 | Connected Vehicle Traffic Signal System (Hillsborough County CV Initiative) | **New Project Service.** |
| TM04 | Connected Vehicle Traffic Signal System (I-4 FRAME) | **New Project Service.** |
| TM04 | Connected Vehicle Traffic Signal System (THEA CV Pilot) | **New Project Service.** |
| TM06 | Traffic Information Dissemination (City of Tampa ATMS Expansion) | **New Project Service.** |
| TM06 | Traffic Information Dissemination (FDOT District 7 Dynamic Tolling) | **New Project Service.** |
| TM06 | Traffic Information Dissemination (FDOT District 7 Port) | **New Project Service.** |
| TM06 | Traffic Information Dissemination (FDOT District 7 WWD Ramp Expansion) | **New Project Service.** |
| TM06 | Traffic Information Dissemination (Hillsborough County C2C Communications) | **New Project Service.** |
| TM06 | Traffic Information Dissemination (Hillsborough County MPO Data and Analytics ) | **New Project Service.** |
| TM07 | Regional Traffic Management (City of Tampa ATMS Expansion) | **New Project Service.** |
| TM07 | Regional Traffic Management (Hillsborough County C2C Communications) | **New Project Service.** |
| TM08 | Traffic Incident Management System (City of Tampa ATMS Expansion) | **New Project Service.** |
| TM08 | Traffic Incident Management System (FDOT District 7 ICM) | **New Project Service.** |
| TM08 | Traffic Incident Management System (FDOT District 7 Port) | **New Project Service.** |
| TM08 | Traffic Incident Management System (Hillsborough County C2C Communications) | **New Project Service.** |
| TM09 | Integrated Decision Support and Demand Management (FDOT District 7 Dynamic Tolling) | **New Project Service.** |
| TM09 | Integrated Decision Support and Demand Management (FDOT District 7 ICM) | **New Project Service.** |
| TM10 | Electronic Toll Collection (FDOT District 7 Dynamic Tolling) | **New Project Service.** |
| TM10 | Electronic Toll Collection (FDOT District 7 Gateway Expressway) | **New Project Service.** |
| TM20 | Variable Speed Limits (FDOT District 7 ICM) | **New Project Service.** |
| TM20 | Variable Speed Limits (THEA CV Pilot) | **New Project Service.** |
| TM21 | Speed Harmonization (FDOT District 7 ICM) | **New Project Service.** |
| TM21 | Speed Harmonization (THEA CV Pilot) | **New Project Service.** |
| TM22 | Dynamic Lane Management and Shoulder Use (FDOT District 7 Bus on Shoulder) | **New Project Service.** |
| TM22 | Dynamic Lane Management and Shoulder Use (FDOT District 7 Bus on Shoulder) | **New Project Service.** |
| VS01 | Autonomous Vehicle Safety Systems (FDOT District 7 ICM) | **New Project Service.** |
| VS02 | V2V Basic Safety (FDOT District 7 ICM) | **New Project Service.** |
| VS02 | V2V Basic Safety (HART Autonomous Transit) | **New Project Service.** |
| VS02 | V2V Basic Safety (Hillsborough County CV Initiative) | **New Project Service.** |
| VS02 | V2V Basic Safety (I-4 FRAME) | **New Project Service.** |
| VS02 | V2V Basic Safety (THEA CV Pilot) | **New Project Service.** |
| VS03 | Situational Awareness (FDOT District 7 ICM) | **New Project Service.** |
| VS03 | Situational Awareness (FDOT District 7 Wrong-way Driver Detection -V2I) | **New Project Service.** |
| VS03 | Situational Awareness (HART Autonomous Transit) | **New Project Service.** |
| VS03 | Situational Awareness (Hillsborough County CV Initiative) | **New Project Service.** |
| VS03 | Situational Awareness (I-4 FRAME) | **New Project Service.** |
| VS03 | Situational Awareness (THEA CV Pilot) | **New Project Service.** |
| VS08 | Queue Warning (FDOT District 7 ICM) | **New Project Service.** |
| VS08 | Queue Warning (THEA CV Pilot) | **New Project Service.** |
| VS12 | Pedestrian and Cyclist Safety (Hillsborough County CV Initiative) | **New Project Service.** |
| VS12 | Pedestrian and Cyclist Safety (I-4 FRAME) | **New Project Service.** |
| VS12 | Pedestrian and Cyclist Safety (THEA CV Pilot) | **New Project Service.** |
| VS13 | Intersection Safety Warning and Collision Avoidance (FDOT District 7 ICM) | **New Project Service.** |
| VS13 | Intersection Safety Warning and Collision Avoidance (FDOT District 7 US 19 SPaT) | **New Project Service.** |
| VS13 | Intersection Safety Warning and Collision Avoidance (HART Autonomous Transit) | **New Project Service.** |
| VS13 | Intersection Safety Warning and Collision Avoidance (Hillsborough County CV Initiative) | **New Project Service.** |
| VS13 | Intersection Safety Warning and Collision Avoidance (I-4 FRAME) | **New Project Service.** |
| VS13 | Intersection Safety Warning and Collision Avoidance (THEA CV Pilot) | **New Project Service.** |

## Current and New Projects in the Architecture

The projects were a primary source of discussion and review during the Review Meeting and the Stakeholder Workshop. Projects that are part of a larger deployment program, containing the same elements and interfaces, and are repeated over consecutive geographic segments or project phases, were generalized into a single project instance. This generalization constitutes the definition of one project architecture that will be used multiple times for different iterations of a deployed configuration. In the same vein, on-going projects that are implementing the same technology supporting the physical expansion of a system, such as a CCTV expansion, were also generalized as one project architecture definition. This has the benefit of reducing the complexity of the architecture and maintaining consistency across repetitive projects.

Projects that were identified as being completed, were folded into the District 7 RITSA. Projects that have not been completed but are going to be deployed, were noted as on-going. Projects that are no longer valid or being pursued, were removed. New projects were added as identified by stakeholders. The projects reviewed and provided by stakeholders for the District 7 RITSA Architecture are provided in Table 6.

Table 6 District 7 RITSA Projects

| **Project Name** | **Description** | **Recommendation & Action Taken** |
| --- | --- | --- |
| 113th St ATMS - 54th Ave N to West Bay Dr. | Installation of fiber, DMS and CCTV cameras. | New Project Title: 113th St ATMS – 150th Ave (Tom Stuart Cswy) to Ulmerton Rd  Timeframe: Long  Pinellas County project is still planned, keep the project architecture.  Workbook and scanned project diagrams:  Remove City of Clearwater Traffic Control Center from project architecture  Robert Meador (Pinellas County) provided comments (7-13-2020) “Where did this come from? Pinellas County does not have fiber along 113th St. This is a future project.” On the following content in the Draft Workshop Report: 113th Street Advanced Traffic Management System (ATMS) - 54th Avenue North to West Bay Drive is existing. Clearwater interface exists and is used to monitor and backup Pinellas County.  **Revised project title to “Pinellas County 113th St. ATMS -150th Ave (Tom Stuart Causeway) to Ulmerton Rd CCTV/DMS.” Removed City of Clearwater Traffic Control Center element from the project.** |
| 49th St - Park Blvd to US 19 | Installation of fiber, DMS and CCTV cameras. | New Project Title: 49th St - Park Blvd to SR 60  Timeframe: Short  Workbook:  Pinellas County project is still planned, design complete and construction to begin in 2020.  Robert Meador (Pinellas County) provided comments (7-13-2020) “What does this mean? These projects are not connected.” On the following content in the Draft Workshop Report: 49th Street - Park Boulevard to US 19 is planned, but with different limits; 46th Avenue North to SR60. Merge this project with the 113th Street ATMS project and remove it from the project list.  **Revised project title to” Pinellas County 49th St – Park Blvd to SR 60 CCTV/DMS”.** |
| 66th St ATMS - Gulf Blvd to Park Blvd | Installation of fiber, 5 DMS, and 17 CCTV cameras. Video detection at 10 intersections running InSync. | New Project Title: 66th St ATMS - Gulf Blvd to US 19.  Pinellas County is still planned however project is under construction and expected to be complete prior to finalization of the architecture update.  Workbook: Segment from Gulf Blvd to Park Blvd is complete. Segment from Park Blvd to US 19 will be completed in 2020.( Robert Meador/Pinellas County)  **Merged project into the RITSA and removed project architecture.** |
| **Autonomous Vehicle (AV) shuttle at Tampa International Airport.** |  | **Project architecture was not added, as the system that manages and controls the Tampa Airport’s shuttle does not exchange information with any other ITS system.** |
| Bryan Dairy Rd ATMS - Seminole Blvd to US 19 | Installation of fiber, 3 DMS, and 7 CCTV cameras. Video detection at 8 intersection running InSync. | Pinellas County project is complete, merge the project into the District 7 RITSA and then delete the project architecture.  **Merged project into the RITSA and removed project architecture.** |
| **BRT** | This project will implement a BRT line from Downtown St Pete to St. Pete beach via the Central Avenue corridor. | **Project merged into the “PSTA Bus Rapid Transit” project.** |
| **Bus on Shoulders /I-275 Express** | FDOT ramp measures for related Bus on Shoulder project. | **Added “FDOT District 7 Bus on Shoulder / I-275 Express” project architecture.** |
| **CCTV** | **This project will add CCTV for security on PSTA vehicles and facilities.** | New planned project.  **Added “PSTA Security CCTV” project.** |
| **Citrus County Detection** | **Install CCTV and Bike Counters for counting vehicle and bicycle that will be utilized in monitoring traffic.** | New planned project.  **Added new project.** |
| City of Clearwater ITS devices | Deploy CCTV, DMS, and count stations for the city streets | Project is still planned, keep the project architecture.  Workshop Report: Planned. Legacy devices are not in County-wide software. Remove the Pinellas County Field Equipment from this project.  Workbook and scanned project diagrams  (Robert Meador):  Add interface between City of Clearwater Traffic Control Center and Pinellas County TMC. Remove interface between City of Clearwater Traffic Control Center and Pinellas County Field Equipment. Add interface between Pinellas County Field Equipment and Pinellas County TMC.  **Added Pinellas County Traffic Management Center to the project. Revised project interfaces.** |
| City of Clearwater Signal System Upgrades | Upgrade of legacy signal systems | Project is still planned, keep the project architecture.  Workshop Report: Planned. Merge into County-wide Pinellas SunCoast Transit Authority (PSTA) project.  **Updated project interfaces to add flows related to Dynamic Messages Signs.** |
| City of Clearwater Transit Signal Priority | Implement transit signal priority on city streets to support PSTA operations in the city. | Project is still planned, keep the project architecture  Workshop Report: Planned. This is a generic County-wide project. The project will be mainly implemented by county. City may have some role in the projects.  **Project flows are planned. No revision necessary.** |
| **City of Plant City Controller upgrade** | **This project will upgrade traffic signal controllers in the City of Plant City**. | Project is still planned, commission agenda approved on 6/22/20. Project set to begin late August.  **Added project architecture.** |
| **City of Plant City EVP Project** | **This project will install Emergency Vehicle Pre-Emption systems at the signals along major arterials in the City of Plant City in two years.** | New planned project.  **Added project architecture.** |
| **City of Plant City Fiber Upgrade** |  | Upgrade existing fiber City-Wide over the next five years  Timeframe: Long  Project has begun construction.  **Fiber upgrade does not affect functionality of ITS elements in RITSA. No action taken.** |
| City of Tampa ATMS Expansion | Expand coverage of the ATMS by adding 80 intersections to the ATMS software | Project is still planned, keep the project architecture.  Workshop: Ongoing. Phase 1 of the project is currently being implemented. In subsequent phases, the ATMS will have interfaces with other systems. These include Local Emergency Operations Centers (EOC) and elements of the City of Tampa Weather Information upgrades project (National Weather Service, National Hurricane Center Information System, County and City Roadway Maintenance and Construction Systems). Update project description accordingly and delete the number 80 from the description.  Carla Holmes: My notes indicate project should be shown as on-going. Also revisit flows and connection to FDOT.  **Revised project architecture to include interfaces with the following project’s systems:**   * **City of Tampa TMC systems upgrade** * **City of Tampa Vehicle Detection Expansion** * **City of Tampa Continuation of Operations (COP) Upgrade** * **City of Tampa Weather Information upgrades**   **Revised project description. Added interface to the Tampa Bay SunGuide center.** |
| City of Tampa Bicycle Detection | This project will deploy bicycle detectors in the City of Tampa. | Project is still planned, keep the project architecture. Workshop Report: Project should be removed.  **Removed project.** |
| City of Tampa Continuation of Operations (COP) Upgrade | Expand functionality of connection to County EOC to support COP. | Project is still planned, keep the project architecture.  Workshop Report: City of Tampa  Continuation of Operations (COP) Upgrade should be merged into City of Tampa ATMS Expansion and then removed from the project list.  **Merged project into the revised City of Tampa ATMS Expansion project and removed project architecture.** |
| City of Tampa DMS Expansion | DMS deployed on and around downtown to support event management | Project is still planned, keep the project architecture.  Workshop Report: ongoing.  **Revised project flow status to ongoing.** |
| City of Tampa Integration with Pinellas County TMC | City of Tampa would like to make a connection with Pinellas County TMC to share information. | Project is still planned, keep the project architecture.  Workshop: ongoing  Carla Holmes: My notes indicate that no one knew the status of this project and that it will be removed for now. (?) Please verify.  Follow-up: Sent an e-mail to Vik Bhide and Brandon Campbell on 7/27/2020 to know the status of the project. Brandon Campbell replied on 7/29/2020. His response was “I’m not aware of any integration effort with Pinellas County TMC that has been pursued during my tenure with the city over the last 3 ½ years. I’m curious what prompted it. I’d think we would pursue something with Hillsborough County and/or the FDOT RTMC before crossing the bay. I’d recommend removing it from the RITSA. If a long-term need arises I’m sure it could be added back in.  **Removed project.** |
| City of Tampa TMC systems upgrade | Upgrade central software operating for CCTV, DMS, and detectors. Improve existing connection to City of Tampa Police to provide access to DMS and detector information. | Project is still planned, it is on-going, and the central software will be integrated with the Genetec Video Management system. Update the project architecture.  Project is still planned, keep the project architecture.  Workshop Report: City of Tampa TMC Systems Upgrade should be merged into City of Tampa ATMS Expansion and then removed from the project list.  **Merged project into the revised City of Tampa ATMS Expansion project and removed project architecture.** |
| City of Tampa Vehicle Detection Expansion | Additional vehicle detectors and count stations to be connected to the TMC | City of Tampa Vehicle Detection Expansion should be merged into City of Tampa ATMS Expansion and then removed from the project list.  **Merged project into the revised City of Tampa ATMS Expansion project and removed project architecture.** |
| City of Tampa Weather Information upgrades | Deploy weather stations within the city or create a connection to Hillsborough County TMC to receive information from the County RWIS. | Project is still planned, keep the project architecture.  Workshop Report: City of Tampa Weather Information Upgrades should add flood sensors and be merged into City of Tampa ATMS Expansion and then removed from the project list.  Carla Holmes:  My notes indicate that the scope was narrowed to just include flood sensors, not to add them. Verify.  **Merged project into the revised City of Tampa ATMS Expansion project and removed project architecture.** |
| Clearwater Beach Parking Management | The project would expand existing capability to monitor the number of empty spaces in City owned lots and would focus on providing traveler information about parking at the beach | Project is still planned, keep the project architecture.  **Revised project name to ”City of Clearwater Beach Parking Management.” Removed City of St. Petersburg Traffic Control Center element from project. Added City of Clearwater Traffic Control Center and Private Travelers Personal Computing Devices elements.** |
| Coast Guard Security Video | The Coast Guard is installing security equipment around the port (and at bridges??). This project is to bring the video from security equipment being installed by the Coast Guard back to the ATMS | FDOT to meet with Port of Tampa and check on the project status. Skyway Bridge was mentioned as possibly having cameras.  Workshop Report: Port owned cameras at Skyway. Cameras are installed on temporary structure, video confirmed back to port as operational (August 2020). Additional construction to place permanent structure (pole) budgeted and planned for completion in late 2020 or early 2021. Video received over dedicated FDOT fiber network to Port Security building.  **Replaced user defined project flow with ARC-IT flow.** |
| CR 1 - SR 60 to Alderman Rd | Installation of fiber, DMS and CCTV cameras. | Pinellas County project is complete, merge the project into the District 7 RITSA and then delete the project architecture. (Robert Meador /Pinellas County).  **Merged project into the RITSA and removed project architecture.** |
| **Direct Connect** | **This program provides first and last mile transportation that allows PSTA bus riders a discount to get to locations not served by a bus route.** | **Merged existing project into the RITSA by adding appropriate interfaces in the RITSA.** |
|  | Hillsborough Metropolitan Planning Organization (MPO) will develop an ITS Strategic Plan that may include new ITS projects. | **ITS Strategic Plan projects will be added when they are made available in the future.** |
|  | Hillsborough Metropolitan Planning Organization (MPO) will develop a Smart City Plan that may include new ITS projects.  J Wong (Hillsborough MPO):  **2020 Smart Cities Plan**  Hillsborough MPO Plan forthcoming in 2020.  Timeframe: Short  Scheduled to be complete by end of CY2020. | **Smart City Plan Projects will be added when they are made available in the future.** |
| **Data and Analytics Platform** | **Shared data platform available for stakeholders in Hillsborough County. Uses HERE data.** | **Added “Hillsborough County MPO Data and Analytics Platform” project architecture.** |
| **Downtown Tampa Autonomous Transit** | **This project will provide automatic shuttle service to connect the Marion Transit Center with areas of heavy employment centers in downtown Tampa.** | **Added “HART Downtown Tampa Autonomous Transit” project architecture.** |
| **Extension of Fiber** | **This project will implement the facilitation of extending the county Fiber to PSTA.** | **Fiber extension does not affect functionality of ITS elements in RITSA. No action taken.** |
| **Fare Integration** | **This project will connect all fare payment apps to one application.** | **Developed the “PSTA Fare Integration” project.** |
| FDOT Arterial DMS | Install DMS on arterials leading to highways | Project is still planned but parts are existing, keep the project architecture.  Workshop Report: ongoing.  **Added interfaces. Revised project name to “FDOT District 7 Arterial DMS”.** |
| FDOT Dynamic Tolling | This project would enable dynamic tolling on express lanes in District 7. Under this scenario, the FDOT D7 SunGuide Center would calculate tolls based on traffic data, which would then be posted on equipment and sent to SunPass, where tolls would be posted to accounts. | Project is still planned, keep the project architecture.  **Revised project name to “FDOT District 7 Dynamic Tolling”. Project flows are planned.** |
| FDOT District 7 Bus on Shoulder / I-275 Express | This project will install DMS, CCTV, and lane control signs that would allow FDOT District 7 to use the I-275 Express shoulder as a transit bus only travel lane. | Check website description for typos.  **Revised description.** |
| FDOT District 7 Wrong Way Detection (WWD) Ramp System Expansion | This project will install inductive loop or radar detection systems and countermeasure flashing beacon signage at interstate freeway off-ramps to alert and warn motorists driving the wrong way on the ramps. | Typo on website Detection (WWD).  **Revised project name.** |
| FDOT Emergency Weather Conditions | Get emergency weather information from NWS and provide emergency weather condition dissemination through web and DMS. | Project is complete, add wind sensors ESS flows to the project, merge the project into the District 7 RITSA and then delete the project architecture.  **Verified that wind sensor ESS flows are added in the RITSA. Merged project into the RITSA and removed project architecture.** |
| FDOT Fog Detection System | District 1 will deploy a fog detection system on I-4, which, pending acceptance, will then be operated by FDOT District 7. | Project is complete, merge the project into the District 7 RITSA and then delete the project architecture.  **Merged project into the RITSA and removed project architecture.** |
| **FDOT Pedestrian Identification** | **Detection of pedestrian on Skyway Bridge.**  **This project was added at the meeting. Project is complete, need to create** | **Added project interfaces and services to RITSA.** |
| FDOT Port Project | Implement a fiber connection to the regional ports and the Coast Guard. Implement CCTV, DMS, CV HAR to provide info on interstate and Connector traffic. | Workshop Report: Ongoing. Port only receives data from FDOT.  **Revised project interfaces to add Port of Tampa to the project.** |
| FDOT Wrong-way Driver Detection | Detection of wrong-way drivers on limited access ramps | Project is complete, merge the project into the District 7 RITSA and then delete the project architecture. Workshop Report: Ongoing.  **Merged project into the RITSA and removed project architecture.** |
| FDOT Wrong-way Driver Detection- V2I Implementation | More advanced version of wrong-way driver detection using V2I technologies | Project is still planned, keep the project architecture  **Revised FDOT Connected Vehicle Roadside Equipment name to FDOT District 7 CAV Field Equipment. Revised project architecture.**  Description just says, “More advanced version of wrong–way driver detection using V2I technologies”, but should include rest of the description.  **Revised description.** |
| Gateway Project | Develop Managed Lanes leading to I275. Includes Open Road Tolling and ITS devices. | Project is still planned, keep the project architecture.  Workshop Report: Gateway Project may be a Florida’s Turnpike Enterprise (FTE) project and that needs to be determined. The project is not associated with the Statewide Express Lane Software (SELS). This portion would have Road Rangers and FDOT managing emergency response. Gateway has fixed pricing, there may be dynamic tolls on the I-275 portion of Tampa Bay Next (TBNext).  Carla Holmes: Diagram is incorrect.  **Added project architecture. Revised project name to “FDOT District 7 Gateway Expressway Project”. It is FDOT District 7 project, not a FTE project. Gateway Expressway has static and dynamic tolls.** |
| **Gandy ITS Deployment**  **(Hillsborough Segment)** | The proposed work includes ITS deployment for the Gandy Boulevard from west end of the Gandy Bridge to Dale Mabry Highway. The ITS deployment includes installing CCTV, MVDS, HUB shelter, 144 strand trunk fiber optic communication and multiduct conduit system. New CCTV installations along with the existing CCTV will provide full coverage of the entire limits at maximum 1 mile spacing. MVDS will be installed at half mile interval. Along the existing Gandy bridge segment, CCTV and MVDS will be installed on new pilaster attaching to the bridge. Between West Shore Boulevard and Dale Mabry Highway, exist ITS devices will be spliced to the new 144 STR trunk fiber and existing 48 STR fiber will be removed. A new HUB shelter will be installed in the vicinity of Gandy Boulevard and Dale Mabry Highway. | New Planned Project( Phuc Duong -HNTB / FDOT D7 –Tampa Bay SunGuide Center)  **Added new project.**  MVDS, HUB shelter – What is MVDS - motor vehicle detection system? Mxxx video detection system? Is this just a hub building or does HUB an abbreviation?  **Revised project description for Microwave Vehicle Detection System and Communications Hub shelter.** |
| Green Light Pinellas | This project will add CCTV for security on PSTA vehicles and facilities | Project is complete, however diagram not correct, add transit vehicle, merge the project into the District 7 RITSA and then delete the project architecture.  Workshop Report: A vehicle interface needs to be added to this project. The project needs to be renamed as this was the name of an older project, otherwise not sure of status. Kessia Harris (PSTA) will check and provide the status of the project.  Workbook (Kessia Harris): This should be Removed.  **Added interfaces between PSTA Transit Management Center and PSTA Transit Vehicles and between HART Transit Operations and Transit Vehicles. Merged project into the RITSA and removed project architecture.** |
| Gulf Blvd ATMS | Installation of 15 DMS, and approximately 20 CCTV cameras. System to be used primarily for evacuation and routing information | Initial Review Meeting: Pinellas County project is still planned, keep the project architecture.  Workshop Report: Project is planned and under construction. Remove Dynamic Message Signs DMS) and number of Cameras from description.  Workbook (Robert Meador): Revise the project description to “Installation of fiber and CCTV cameras. System to be used primarily for evacuation and routing information.”  Timeframe: Short. Project is under construction.  **Revised project name to “Pinellas County Gulf Blvd ATMS”. Revised project description. Updated interface to include evacuation route information. Revised project status to ongoing.** |
| HART BRT Expansion | This project would create new BRT lines, running from east to west, in Hillsborough County. These lines would intersect the currently deployed BRT lines. The deployment would include transit signal priority at additional intersections. | Project is planned with different geography. Project includes TSP and EVP.  **Revised project name to ”HART Bus Rapid Transit (BRT) Expansion”. Added emergency vehicle and EVP flows.** |
| HART CAD/AVL Update | This project will include a CAD/AVL update for HART vehicles, and potentially include live streaming surveillance video on vehicles. | HART Computer Aided Dispatch (CAD)/Automatic Vehicle Location (AVL) Update is planned.  **Added transit security service.** |
| HART DMS | This project would install DMS at HART facilities to provide traveler information. This project would be funded by advertisements on the dynamic signs | The FDOT Architecture Team will contact HART to know the status of the project.  **No change necessary.** |
| HART FareBox Upgrade | This project will upgrade the fare payment system for HART, including the launch of a SmartCard that will eventually be accepted by other agencies in the region. This project could also involve installing Wi-Fi on buses. | Project is planned.  **No change necessary.** |
| HART GIS | This project would deploy a cloud-based GIS platform that would include bus stop information and images of bus stops. | Blank Project. The FDOT Architecture Team will contact Dexter Corbin for the status of the project.  **Added project architecture**. |
| **Hastus Upgrade** | **This project will upgrade the current Hastus program.** | **No project added. Hastus modules to be upgraded are not related to ITS.** |
| **Hernando County Detection** | **Install CCTV and Bike Counters for counting vehicle and bicycle that will be utilized in monitoring traffic.** | New Planned project.  **Added project.** |
| **Hillsborough County’s Connected Vehicle Initiative with HART, and Fire and Rescue** | **The project will implement various Connected Vehicle (CV) applications for the Hillsborough County area. The project's CV applications will focus on safety and mobility for multiple modes of travel, including cars, buses and pedestrians and also for emergency vehicles.** | Planned new project.  **Added project.** |
| **Hillsborough County C2C Communications Design** | **Deployment of communications network that will facilitate communications on C2C interfaces.** | **Added “Hillsborough County C2C Communications” project architecture.** |
| **Hillsborough County ATMS Program Expansion** | **Expand current ATMS system.** | Planned new project.  **Added project.** |
| **I-275 DMS Upgrade**  **(Pinellas Segment)** | The proposed work includes replacement of existing outdated Mark IV Dynamic Message Signs (DMSs) with new DMSs. The existing signs are old and are a maintenance issue. Also, the sign manufacturer is no longer in business. At the four designated locations in Pinellas County (4 signs total), the existing signs will be removed, along with the associated UPSs. At each of the four locations, the new sign(s) will be installed on the existing support structure, assuming the replacement sign(s) are no larger or heavier than the existing sign(s), and that minimal analysis of the existing support structures will be required. It is assumed that the existing power service infrastructure will be upgraded to support the new signs. A UPS is included with each new sign and will replace the UPSs that were removed. The existing ITS cabinets are to remain; however, modifications to the internal equipment will be necessary to connect and configure the new signs.    Included with each new sign and will replace the UPSs that were removed. The existing ITS cabinets are to remain; however, modifications to the internal equipment will be necessary to connect and configure the new signs. | **Added “FDOT District 7 Freeway DMS Upgrade” generic project to represent any District 7 freeway DMS upgrade project.** |
| **I-275 DMS Upgrade**  **(Hillsborough Segment)** | The proposed work includes replacement of existing outdated Mark IV Dynamic Message Signs (DMSs) with new DMSs. The existing signs are old and are a maintenance issue. Also, the sign manufacturer is no longer in business. At the four designated locations in Hillsborough County (6 signs total), the existing signs will be removed, along with the associated UPSs. At two of the sites there are two existing signs installed on the same support structure. Both existing signs are to be removed and replaced. At each of the four locations, the new sign(s) will be installed on the existing support structure, assuming the replacement sign(s) are no larger or heavier than the existing sign(s), and that minimal analysis of the existing support structures will be required. It is assumed that the existing power service infrastructure will be upgraded to support the new signs. A UPS is included with each new sign and will replace the UPSs that were removed. The existing ITS cabinets are to remain; however, modifications to the internal equipment will be necessary to connect and configure the new signs. | **Added “FDOT District 7 Freeway DMS Upgrade” project.** |
| **I-4 DMS Upgrade** | The proposed work includes replacement of existing outdated Mark IV Dynamic Message Signs (DMSs) with new DMSs at seven locations along I-4. The existing signs are old and are a maintenance issue. Also, the sign manufacturer is no longer in business. At the seven designated locations, the existing signs will be removed, along with the associated UPSs. At each location, the new sign will be installed on the existing support structure, assuming the replacement sign is no larger or heavier than the existing sign, and that no analysis of the existing support structure will be required. It is assumed that the existing power service infrastructure will be sufficient to support the new signs. A UPS is included with each new sign and will replace the UPSs that were removed. The existing ITS cabinets are to remain; however, modifications to the internal equipment will be necessary to connect and configure the new signs. | **Added “FDOT District 7 Freeway DMS Upgrade” project.** |
| **I-275 from South of I-4 to North of Bearss Ave** | The scope of this work is to initiate an Integrated Corridor Management (ICM) program for I-275 from South of I-4 to North of Bearss Ave. ICM allows the maximum utilization of parallel facilities by professionally managing the corridor, making operational decisions for the benefit of the corridor as a whole. I-275 along this route will be studied for ramp metering, dynamic speed limits, hard shoulder running, and similar TSM&O improvements. New field ITS infrastructure will be connected to the existing I-275 fiber trunk and integrated into the existing RTMC for monitoring and operating. Similar improvements are needed along the parallel arterials. This item number shall serve as the primary number for the overall I-275 ICM program between Downtown Tampa and Bearss Ave. Preceding projects on associated corridors must be completed. | **Added “FDOT District 7 I-275 Integrated Corridor Management (ICM)” project.** |
| **Interstate 4 (I-4) Florida’s Regional Advanced Mobility Elements (FRAME)** | **This project is a regional integrated corridor management system that will be implemented from the Central Business District in Tampa along I-4 to the Florida Turnpike in southwest Orlando. The project will cover 77 miles of I-4 and 122 miles of limited access facilities or signalized arterials in the region. This system will be interacting with 491 traffic signals that are currently being hosted by the local agencies on a variety of platforms. Local agencies within District 7 that will be participating in the operations of this system include Hillsborough County.**  **Status: Planned.** | **Added project. The scope of the project architecture supports advanced technologies such as Automated Traffic Signal Performance Measures (ATSPM) and Connected Vehicle solutions (freeway and arterial management systems) in FDOT District 7 and Hillsborough county.** |
| **Intermodal Centers** | **This project will implement Gateway, Clearwater intermodal centers.** | **Added “PSTA Intermodal Centers” project architecture.** |
| **ITS Power Service Refresh I-4 (Hillsborough Segment)** | The proposed work includes the installation of permanent emergency generators along a designated segment of I-4 to provide backup power to ITS cabinets to keep communications operational in the event of power loss. The designated roadway segment suffered power loss to ITS cabinets during Hurricane Irma in 2017. If two cabinets go down, all of the communication in between them goes down as well. Various sized permanent emergency generators are going to be installed at strategic locations. The existing circuits provided were analyzed, and generator locations determined to be the most cost effective and logical were selected. Some locations involve just hooking up a generator to existing power services; however, other locations involve linking up multiple service points into one and putting a generator on them. | **Not an ITS project. No project added.** |
| **ITS Power Service Refresh I-4 (Polk Segment)** | The proposed work includes the installation of permanent emergency generators along a designated segment of I-4 to provide backup power to ITS cabinets to keep communications operational in the event of power loss. The designated roadway segment suffered power loss to ITS cabinets during Hurricane Irma in 2017. If two cabinets go down, all of the communication in between them goes down as well. Various sized permanent emergency generators are going to be installed at strategic locations. The existing circuits provided were analyzed, and generator locations determined to be the most cost effective and logical were selected. Some locations involve just hooking up a generator to existing power services; however, other locations involve linking up multiple service points into one and putting a generator on them. | **Not an ITS project. No project added.** |
| **ITS Power Service Refresh I-75 (Hillsborough Segment)** | The proposed work includes the installation of permanent emergency generators along a designated segment of I-75 from Progress Blvd to Pasco County Line to provide backup power to ITS cabinets to keep communications operational in the event of power loss. The designated roadway segment suffered power loss to ITS cabinets during Hurricane Irma in 2017. If two cabinets go down, all of the communication in between them goes down as well. Various sized permanent emergency generators are going to be installed at strategic locations. The existing circuits provided were analyzed, and generator locations determined to be the most cost effective and logical were selected. Some locations involve just hooking up a generator to existing power services; however, other locations involve linking up multiple service points into one and putting a generator on them. | **Not an ITS project. No project added.** |
| **ITS Power Service Refresh I-75 (Pasco Segment)** | The proposed work includes the installation of permanent emergency generators along a designated segment of I-75 from Pasco County Line to Sumter County Line to provide backup power to ITS cabinets to keep communications operational in the event of power loss. The designated roadway segment suffered power loss to ITS cabinets during Hurricane Irma in 2017. If two cabinets go down, all of the communication in between them goes down as well. Various sized permanent emergency generators are going to be installed at strategic locations. The existing circuits provided were analyzed, and generator locations determined to be the most cost effective and logical were selected. Some locations involve just hooking up a generator to existing power services; however, other locations involve linking up multiple service points into one and putting a generator on them. | **Not an ITS project. No project added.** |
| **ITS Power Service Refresh I-75 (Hernando Segment)** | The proposed work includes the installation of permanent emergency generators along a designated segment of I-75 from Hillsborough County Line to Hernando County Line to provide backup power to ITS cabinets to keep communications operational in the event of power loss. The designated roadway segment suffered power loss to ITS cabinets during Hurricane Irma in 2017. If two cabinets go down, all of the communication in between them goes down as well. Various sized permanent emergency generators are going to be installed at strategic locations. The existing circuits provided were analyzed, and generator locations determined to be the most cost effective and logical were selected. Some locations involve just hooking up a generator to existing power services; however, other locations involve linking up multiple service points into one and putting a generator on them**.** | **Not an ITS project. No project added.** |
| **ITS Power Service Refresh I-275 (North of I-4 to Pasco County)** | The proposed work includes the installation of permanent emergency generators along a designated segment of I-275 from I-4 to Pasco County Line to provide backup power to ITS cabinets to keep communications operational in the event of power loss. The designated roadway segment suffered power loss to ITS cabinets during Hurricane Irma in 2017. If two cabinets go down, all of the communication in between them goes down as well. Various sized permanent emergency generators are going to be installed at strategic locations. The existing circuits provided were analyzed, and generator locations determined to be the most cost effective and logical were selected. Some locations involve just hooking up a generator to existing power services; however, other locations involve linking up multiple service points into one and putting a generator on them | **Not an ITS project. No project added.** |
| Keystone Rd - US 19 to East Lake Rd | Installation of fiber, DMS and CCTV cameras. | Initial Review Meeting: Pinellas County project is still planned, keep the project architecture.  Workshop: Planned and under construction.  Workbook: Timeframe: Short Status: Project under construction.  Can project name include “ATMS” or “CCTV/DMS”?  **Revised project name to” Pinellas County Keystone Rd - US 19 to East Lake Rd CCTV/DMS.” Revised project Timeframe to short. Revised project flow status to ongoing.** |
| **Link to Coast Guard St. Petersburg** |  | **This project is covered by the “Coast Guard Security Video” Project. No separate project added.** |
| OneBusAway Update | This project will add dynamic IVR capability to the HART OneBusAway system. | Blank Project. Workshop Report: The FDOT Architecture Team will contact HART to determine if this is a HART project. It is a Hillsborough-centric project. 90% of design of Hillsborough Regional Traffic Management Center (RTMC) is complete. The Hillsborough traffic management systems include Connected Vehicle (CV), Transit Signal Priority (TSP), Emergency Vehicle Preemption (EVP) and coordinate with Fire and Rescue.  **Revised project name to “HART OneBusAway Update”. Added interfaces.** |
| Park Blvd ATMS - Gulf Blvd to Grand Ave | Installation of fiber, 5 DMS, and 14 CCTV cameras. Video detection at 12 intersection running InSync. | Pinellas County project is complete, merge the project into the District 7 RITSA and then delete the project architecture.  **Merged project into the RITSA and removed project architecture.** |
| **Pasco County Detection** | **Install CCTV and Bike Counters for counting vehicle and bicycle that will be utilized in monitoring traffic.** | New Planned project.  **Added project.** |
| Pinellas C2C Connection to FDOT | Project would connect Pinellas County to FDOT through City of Tampa. This would, by extension, connect Pinellas to Pasco County, Hillsborough, and Tampa | Project is still planned, keep the project architecture.  Workshop Report: Ongoing. Drop Pinellas from title as connections are made to other agencies also, change Tampa Traffic Management Center (TMC) to FDOT.  Workbook: This should be removed.  A follow-up e-mail was sent to Kessia Harris (PSTA) to get some information of the project. She indicated that no one from PSTA has any knowledge about the project. Another e-mail was sent to Phuc Duong and Daniel Buidens (FDOT) on 7-30-2020 to get the same project information.  Phuc Duong replied on 8-13-2020 and stated “The C2C connection between FDOT SunGuide and Pinellas TMC has been completed in 2017. The connection to Pinellas comes from the I-275 and 54th Ave north HUB not through the City of Tampa as described in the RITSA. There is a 12 count fiber that leaves this hub and travels along 54th Ave north to US-19.  At this intersection it splices into the 96 count fiber and runs north.  The 12 count fiber splices into the 96 count fiber on the black buffer tube.  The recommended action should be revised to “The project is completed and merge to the District 7 RITSA then delete the project architecture.”  **Merged project into the District 7 RITSA and removed project.** |
| **Pinellas County Trinity Blvd.** | The project includes the installation of 1.71 miles of fiber optic cable in 4” conduit with three 1” innerducts along Trinity Blvd from East Lake Rd to the Pasco County line, two closed circuit television cameras, cabinets and structures to expand the visual coverage of the roadway. Video detection cameras will be added to all signalized intersections as well. This project will also provide for additional regional connectivity to Pasco County’s ITS network. | New Planned project.  **Added “Pinellas County CCTV/VDS” project.** |
| **Pinellas County East Tarpon Ave.** | The project includes the installation of 1 mile of fiber optic cable in 4” conduit with three 1” innerducts along Tarpon Ave from Alt 19 to US 19, three closed circuit television cameras, cabinets and structures to expand the visual coverage of the roadway. Video detection cameras will added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS” project.** |
| **Pinellas County Klosterman Rd** | The project includes the installation of 1.25 miles of fiber optic cable in 4” conduit with three 1” innerducts along Klosterman Rd from Alt 19 to US 19, one closed circuit television camera, cabinet and structure to expand the visual coverage of the roadway. Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS” project.** |
| **Pinellas County East Alderman Road** | The project includes the installation of 2 mile of fiber optic cable in 4” conduit with three 1” innerducts along Alderman Rd from Alt 19 to US 19, two CCTV cameras on existing structures as well as two CCTV cameras, cabinets and structures to expand the visual coverage of the roadway, and two DMS signs, cabinets and structures. Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Added “Pinellas County CCTV/VDS/DMS” project.** |
| **Pinellas County Forest Lakes Blvd** | The project includes the installation of 3 miles of fiber optic cable in 4” conduit with three 1” innerducts along Forest Lakes Blvd from SR 580 to Race Track Rd., five CCTV cameras, cabinets and structures to expand the visual coverage of the roadway, and two DMS signs, cabinets and structures. Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS/DMS” project.** |
| **Pinellas County SR 580** | **The project will deploy closed circuit television (CCTV) camera, fiber optic cable, cabinet and associated structure to expand the visual coverage of the roadway.** | New Planned project.  **Added “Pinellas County SR 580 CCTV” project.** |
| **Pinellas County Sunset Point RD** | The project includes the installation of 3.32 mile of fiber optic cable in 4” conduit with three 1” innerducts along Sunset Point Rd from Keene Rd to McMullen Booth Rd., one CCTV camera on an existing structure as well as two CCTV cameras, cabinets and structures to expand the visual coverage of the roadway, and three DMS signs, cabinets and structures.  Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS/DMS” project.** |
| **Pinellas County Drew St.** | The project includes the installation of 4 miles of fiber optic cable in 4” conduit with three 1” innerducts along Drew St from Myrtle Ave to US 19, five CCTV cameras, cabinets and structures to expand the visual coverage of the roadway, and two DMS signs, cabinets  and structures. Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS/DMS” project.** |
| **Pinellas County Starkey Road Ave** | The project includes the installation of 11 miles of fiber optic cable in 4” conduit with three 1” innerducts along Starkey Rd from Tyrone Blvd to Gulf to Bay Blvd (SR 60), 13 CCTV cameras, cabinets and structures to expand the visual coverage of the roadway, and six DMS signs, cabinets and structures. Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS/DMS” project.** |
| **Pinellas County 113th St.** | The project includes the installation of 6 miles of fiber optic cable in 4” conduit with three 1” innerducts along 113th St from Pasadena Ave to Ulmerton Rd, six CCTV cameras, cabinets and structures to expand the visual coverage of the roadway, and two DMS signs, cabinets and structures. Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS/DMS” project.** |
| **Pinellas County Roosevelt Blvd CCTV** | The project includes the installation of 3 miles of fiber optic cable in 4” conduit with three 1” innerducts along Roosevelt Blvd from Gandy Blvd to Ulmerton Rd, three closed circuit television cameras, cabinets and structures to expand the visual coverage of the roadway. Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS” project.** |
| **Pinellas County 4th St. CCTV/DMS** | The project includes the installation of 8 miles of fiber optic cable in 4” conduit with three 1” innerducts along 4th St from 5th Ave North to I-275, 15 CCTV cameras, cabinets and structures to expand the visual coverage of the roadway, and four DMS signs, cabinets and structures. Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS/DMS” project.** |
| **Pinellas County 54th Avenue CCTV/DMS** | The project includes the installation of 4.5 miles of fiber optic cable in 4” conduit with three 1” innerducts along 54th Ave from Park St to 34th St (US 19), 15 CCTV cameras, cabinets and structures to expand the visual coverage of the roadway, and four DMS signs, cabinets and structures. Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS/DMS” project.** |
| **Pinellas County 38th Avenue CCTV/DMS** | The project includes the installation of 7 miles of fiber optic cable in 4” conduit with three 1” innerducts along 38h Ave from Tyrone Blvd to 4th St, 10 CCTV cameras, cabinets and structures to expand the visual coverage of the roadway, and two DMS signs, cabinets and structures. Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS/DMS” project.** |
| **Pinellas County 22nd Avenue South CCTV/DMS** | The project includes the installation of 4 miles of fiber optic cable in 4” conduit with three 1” innerducts along 22nd Ave South from Pasadena Ave to 34th St (US 19), 6 CCTV cameras, cabinets and structures to expand the visual coverage of the roadway, and one DMS sign, cabinet and structure.  Video detection cameras will be added to each signalized intersection as well. | New Planned project.  **Project addressed in the “Pinellas County CCTV/VDS/DMS” project Project addressed.** |
| Pinellas Trail Count System | This project will deploy counters to count bicyles and pedestrians on the Pinellas Trail. The counts will be collected by the county MPO. | Project is complete, merge the project into the District 7 RITSA and then delete the project architecture.  **Merged project into the RITSA and removed project.** |
| PSTA OneBusAway Application | The project, being done with CUTR, will implement OneBusAway, enabling real-time information on mobile applications. | FDOT to check on the status of the project.  Workshop Report: PSTA OneBusAway Application has a live application available.  Workbook: PSTA: Project uses Transit App instead.  Hillsborough MPO: HART uses OneBusAway; PSTA uses Transit App.  **Merged project architecture into RITSA and removed project.** |
| **PSTA Bus Modem Upgrade** | Project will upgrade modems on the bus to consolidate equipment and go from 3G to 4G. | **Not an ITS project. No project added.** |
| PSTA Bus Rapid Transit | Project will create Bus Rapid Transit routes, including stations to pay before entering the bus and transit signal priority on the routes. | Added the project interface in the District 7 RITSA and removed the project.  **Revised project interface. Removed City of Clearwater Field Equipment. Added City of St. Petersburg Field Equipment.** |
| **PSTA CAD/AVL Upgrade** | **This project will update to Intelligent Vehicle Network (IVN5) for BRT buses.** | New Planned project.  **Added “PSTA CAD/AVL Upgrade” project.** |
| **PSTA Farebox upgrade** | **Project will update fare payment system for launch of smart cards that accept another form of payment.** | New Planned Project.  **Added “PSTA Farebox Upgrade” project.** |
| **PSTA Server upgrade** | Project will migrate server and email to the cloud for disaster recovery. | **Not an ITS project. No project added.** |
| **PSTA Phone service upgrade** | Project will migrate phone service to be hosted in the cloud. | **Not an ITS project. No project added.** |
| PSTA Light Rail | Project would implement a light rail system in Pinellas County. Would likely involve building a new intermodal center. | Delete the project.  **Removed project.** |
| PSTA Transit Signal Priority | Project would implement TSP on other fixed routes in the county | Project is still planned, keep the  Project architecture.  Workshop Report: Planned. Merge with the PSTA Bus Rapid Transit project.  **Merged project into PSTA Bus Rapid Transit project and removed project.** |
| Regional SmartCard Project | Development of a single regional SmartCard that would work for all transit agencies in the region | FDOT to check on the status of the project.  Workshop Report: Planned. Add Pasco County Public Transit to project.  Workbook: PSTA: In beta testing.  **Added Pasco County Public Transportation to the project. Revised project interfaces.** |
| S Belcher Rd ATMS - Park Blvd to Duid Rd | Installation of fiber, 6 DMS, and 10 CCTV cameras. Video Detection at 11 intersections running InSync. | Pinellas County project is complete, merge the project into the District 7 RITSA and then delete the project architecture.  **Merged project into the RITSA and removed project.** |
| South Loop Fiber Project - Park St N to SR 60 | Installation of fiber with connections to the City of Clearwater Traffic Control Center, and 10 CCTV cameras | Pinellas County project is complete, merge the project into the District 7 RITSA and then delete the project architecture.  **Merged project into the RITSA and removed project.** |
| SR 686 ATMS - Gulf Blvd to Airport Parkway | Installation of fiber, 5 DMS, and 10 CCTV cameras. Video detection at 8 intersections. | Pinellas County project is complete, merge the project into the District 7 RITSA and then delete the project architecture.  **Merged project into the RITSA and removed project.** |
| St. Petersburg DMS | This project will install DMS in downtown St. Petersburg. | Project is still planned, keep the project architecture.  Workshop Report: Planned and in design stage.  Workbook + scanned project diagrams:  Description: This project will install fiber, DMS, and CCTV cameras in downtown St. Petersburg  Timeframe: Short  Project in design.  Replace City of St Petersburg Field Equipment with Pinellas County Field Equipment.  Replace City of St Petersburg Traffic Control Center with Pinellas County Traffic Management Center.  **Revised project name to “Pinellas County City of St. Petersburg Area DMS/CCTV”. Replaced the City of St. Petersburg Field Equipment and City of St. Petersburg Traffic Control Center elements with Pinellas County Field Equipment and Pinellas County Traffic Management Center elements. Revised project interfaces. Revised project flow status to ongoing.** |
| Starkey Rd (CR 1) ATMS - Tyrone Blvd to SR 60 | Installation of fiber, DMS and CCTV cameras. | Project is still planned, keep the project architecture.  Workbook+ scanned project diagrams:  Timeframe: Long  Remove City of Clearwater Traffic Control Center.  **Revised project name to “Pinellas County Starkey Rd (CR 1) ATMS - Tyrone Blvd to SR 60”. Removed City of Clearwater Traffic Control Center from project.** |
| Tampa International Airport Expansion | Tampa International Airport (TIA) is also undergoing a major expansion, adding DMS, and will eventually interface with the ATMS. D7 has signed an agreement with TIA to exchange information. | Project is still planned, keep the project architecture.  Description mentions DMS, but no signage data flows shown in information flow diagram.(Carla Holmes/Greesham Smith)  **Project scope is to establish center to center communication between the airport and District 7. Revised description.** |
| **Tampa Hillsborough Expressway Authority (THEA) Connected Vehicle (CV) Pilot** | **The project will implement various Connected Vehicle (CV) applications for downtown Tampa and the surrounding areas. The project's CV applications focus on safety and mobility for multiple modes of travel, including streetcars, buses, cars, and pedestrians.** | New project.  **Added project.** |
| **Transit Application** | This project will allow riders to see bus route, vehicle location in real time, find nearby stops and receive announcements. | **Project interfaces added to the RITSA.** |
| **Truck Parking Availability System (TPAS)** | Represents systems that collect information about available truck parking at rest areas and weight stations and provide the information to truck operators. | Planned New Project.  **Added project.** |
| US 19 Mid-County ATMS | Project will fill a gap in the fiber along US 19 and provide for redundancy in the network | Pinellas County project is complete, merge the project into the District 7 RITSA and then delete the project architecture.  **Removed project.** |
| US 19 North ITS - Pinellas Trail to Beckett Way | Installation of fiber to complete missing gap and provide connection to Pasco County | Pinellas County project is complete, merge the project into the District 7 RITSA and then delete the project architecture.  **Merged project into the RITSA and removed project.** |
| **US 19 Signal Phase and Timing (SPaT)** | **In this project, FDOT District 7, in partnership with Pinellas County, will deploy 23 Signal Phasing and Timing (SPaT) data capable signals along a portion of US 19 corridor.** | New planned project.  **Added “FDOT District 7 US 19 Signal Phase and Timing (SPaT)” project.** |
| **USB 41 / SR 685 / Florida Ave / Tampa St from Kennedy Blvd to Bearss Ave** | The scope of this work is to incorporate USB 41 / Florida Ave / Tampa St into an Integrated Corridor Management (ICM) program from Kennedy Blvd to Bearss Ave. Advance Traffic Controller, NEMA TS 2 Type I with new cabinets wired for ATC, and communication trunk line with lateral drops to each cabinet. Add two front service ADMS on Florida at Bearss Avenue for traffic conditions dissemination on I-275. Include Connected Vehicle capabilities at the intersections to be equipped with the roadside unit processors and DRSC radio, antennas to interface with vehicle mobile devices. | **Project addressed in the “FDOT District 7 I-275 Integrated Corridor Management (ICM)” project.** |
| **US 41 / SR 45 / Nebraska Ave from Kennedy Blvd to Bearss Ave** | The scope of this work is to incorporate US 41 / SR 45 / Nebraska Ave into an Integrated Corridor Management (ICM) program from Kennedy Blvd to Bearss Ave. | **Project addressed in the “FDOT District 7 I-275 Integrated Corridor Management (ICM)” project.** |
| **WWD Ramp System Expansion** | The proposed work includes installation of inductive loop or radar detection systems and countermeasure flashing beacon signage at six designated interstate freeway off-ramps (four on I-275, two on I-4) to alert and warn motorists driving the wrong way on the ramps. The specific ramps are: Ramp #165 NB I-275 at Armenia Ave, Ramp #453 SB I-275 at Doyle Carlton Drive, Ramp #004 NB I-275 at Ashley Drive, Ramp #071 SB I-275 at Jefferson St, Ramp #446 EB I-4 at E Columbus Dr., Ramp #455 WB I-4 at N 50th St**.** | New Planned project.  **Added “FDOT District 7 Wrong Way Detection (WWD) Ramp System Expansion” project.** |
| **Wrong-way Driving Detection System** | Deployment of Wrong-way Detection system at various freeway off-ramps. | **Project addressed in the “FDOT Wrong-way Driver Detection” project which is complete. Merged project into the RITSA and removed project.** |

## Agreements

The agreements listed in the District 7 RITSA were reviewed and stakeholders provided inputs on the current list. Revisions to agreements and new agreements were added as noted in Table 7.

Table 7 Agreements

| **Agreement Title** | **Agreement Type** | **Status** | **Description** | **Associated Stakeholders** | **Action Taken** |
| --- | --- | --- | --- | --- | --- |
| Center for Urban Transportation Research (CUTR) and CUT Data Sharing Agreement | Unspecified | Existing | CUTR and CUT has a data sharing agreement. |  | **Added agreement.** |
| FDOT District 7 and Hillsborough County CCTV Sharing Agreement | Information Exchange Agreement | Planned | The Hillsborough County has installed a lot of cameras, and FDOT District 7 will need an agreement related to sharing CCTV with Hillsborough County. This will provide FDOT District 7 access to Hillsborough County CCTV relative to TBNext. The sharing of CCTV may be piggy-backed on the City of Tampa Agreement. | Hillsborough County | **Added agreement.** |
| FDOT District 7 and Pasco County CCTV Sharing Agreement | Information Exchange Agreement | Planned | The Pasco County has installed cameras, and FDOT District 7 will need an agreement related to sharing CCTV with Pasco County. This will provide FDOT District 7 access to Pasco County CCTV relative to TBNext. | Pasco County TOD | **Added agreement.** |
| Interlocal Agreement for Countywide ITS Design, Construction, Operations, and Maintenance | Information Exchange Agreement | Planned | Pinellas County has primary control of ITS and the City has primary control of its signal system. | City of St. Petersburg, Pinellas County | Add the Agreement (Robert Meador/Pinellas County)  Add Pinellas County to the name? (Carla Holmes /Gresham Smith)  **Added agreement.**  **Revised agreement title.** |
| Countywide ATMS/ITS Traffic Signal Interlocal Agreement | Information Exchange Agreement | Planned | Transfers traffic control responsibilities to the County and describes ITS responsibilities. | City of Clearwater Traffic Operations Division, Pinellas County | Add the Agreement (Robert Meador/Pinellas County)  Add Pinellas County to the name? (Carla Holmes /Gresham Smith)  **Added agreement.**  **Revised agreement title.** |
| Veterans Expressway and Suncoast Parkway MOU | Unspecified | Existing | FDOT District 7 and the FTE have a MOU for operations on the Veterans Expressway and Suncoast Parkway. | FDOT District 7 | Include FDOT District 7 and FTE in the name like the agreements so it’s clear which agencies are involved.  **Revised agreement title to “FDOT District 7 and FTE Veterans Expressway and Suncoast Parkway MOU.”** |
| St. Petersburg and Kenneth City Maintenance Agreement | Unspecified | Existing | The City of St. Petersburg has a maintenance agreement with Kenneth City where the City of Saint Petersburg maintains Kenneth City traffic signals. | City of St. Petersburg | Can “Signal” Maintenance be added to the name so it’s clearer what maintenance is involved.  **Revised agreement title. However, it should be noted that the agreement titles for existing agreements originate from the agreement documents. Renaming in the RITSA, while providing more descriptive titles, misaligns the titles in the RITSA and the actual agreements.** |
| FDOT District 7 and Pasco County Maintenance Agreement | Unspecified | Existing | FDOT District 7 and Pasco County have an ITS equipment maintenance agreement. | FDOT District 7 | Can “ITS” Maintenance be added to the name so it’s clearer what maintenance is involved.  **Revised agreement title. However, it should be noted that the agreement titles for existing agreements originate from the agreement documents. Renaming in the RITSA, while providing more descriptive titles, misaligns the titles in the RITSA and the actual agreements.** |
| FDOT District 7 and City of Tampa Maintenance Agreement | Unspecified | Existing | FDOT District 7 and the City of Tampa have a maintenance agreement for traffic signals. | City of Tampa Smart Mobility Division | Can “Signal” Maintenance be added to the name so it’s clearer what maintenance is involved.  **Revised agreement title. However, it should be noted that the agreement titles for existing agreements originate from the agreement documents. Renaming in the RITSA, while providing more descriptive titles, misaligns the titles in the RITSA and the actual agreements.** |

## Stakeholder Roles and Responsibilities

Roles and responsibilities were revised throughout the District 7 RITSA for stakeholders. The number of entries is voluminous so a sample of the roles and responsibilities are provided in Table 8.

Table 8 Roles and REsponsibilities

| **Stakeholder** | **RR Description** |
| --- | --- |
| FDOT District 7 | Collect and archive multimodal data from multimodal transportation service providers. |
| FDOT District 7 | Collect and archive regional emergency and accident information from regional public safety agencies. |
| FDOT District 7 | Collect and archive toll information from the SunPass customer service center. |
| FDOT District 7 | Collect and archive traffic and traveler information from the FL511 and ride matching systems. |
| FDOT District 7 | Collect and archive transit information from regional transit providers. |
| FDOT District 7 | Collect environmental information from field equipment and from public and private weather service providers. |
| FDOT District 7 | Collect traffic and incident information, and provide it to the media and private travelers. |
| FDOT District 7 | Control and coordinate highway traffic, with ramp meters, high-occupancy vehicle (HOV) lanes, and lane control signals, including reversible lane signals, on FDOT freeways. |
| FDOT District 7 | Coordinate and share traveler information with all other traveler information providers in the region. |
| FDOT District 7 | Coordinate emergency plans, incident responses, and resources with the county EOC/warning points. |
| FDOT District 7 | Coordinate evacuation and reentry plans with the county EOC/warning points. |
| FDOT District 7 | Coordinate incident response and incident reports with the county sheriff/fire/EMS agencies, the county EOC, local police/fire/EMS agencies, the FHP, and other public safety agencies. |
| FDOT District 7 | Coordinate incident response for incidents on or adjacent to state-owned roadways with public safety agencies in surrounding counties and municipalities, including county and local EOCs, and the FDOT District 7 EOC. |
| Hillsborough Area Regional Transit Authority (HART) | Coordinate emergency plans with county EOCs, and provide emergency transit services for evacuations, fires, and disasters, including reentry services. |
| Hillsborough Area Regional Transit Authority (HART) | Coordinate transit schedules with other local transit agencies, particularly for transit connections at transit transfer points. |
| Hillsborough Area Regional Transit Authority (HART) | Coordinate transit security incidents with local police and county sheriffs. |
| Hillsborough Area Regional Transit Authority (HART) | Coordinate with multimodal transportation agencies, including airports and heavy rail system. |
| Hillsborough Area Regional Transit Authority (HART) | Coordinate with the City of Tampa for traffic signal priority. |
| Hillsborough Area Regional Transit Authority (HART) | Provide a demand-responsive bus transit plan to users and travelers using the HART traveler information system. |
| Hillsborough Area Regional Transit Authority (HART) | Provide automated transit maintenance scheduling for all HART vehicles using automated vehicle conditions reporting (future). |
| Pinellas County PWD | Adjust signal-timing patterns in response to incidents. |
| Pinellas County PWD | Collect traffic and incident information, and provide it to the media and private travelers. |
| Pinellas County PWD | Coordinate and share traveler information with all other traveler information providers in the region. |
| Pinellas County PWD | Coordinate emergency plans, incident responses, and resources with the county EOC/warning points. |
| Pinellas County PWD | Coordinate emergency traffic signal control with the county EOC/warning points. |
| Pinellas County PWD | Coordinate evacuation and reentry plans with the county EOC/warning points. |
| Pinellas County PWD | Coordinate incident response for incidents on or adjacent to county-owned roadways with PWDs, public safety agencies, and EOCs in surrounding counties and municipalities, including scheduled event responses. |
| Pinellas County PWD | Coordinate maintenance and construction activities with other county and city maintenance operations and FDOT District 7 maintenance operations. |
| Pinellas County PWD | Coordinate maintenance or construction requests from RTMCs. |
| Pinellas County PWD | Coordinate maintenance resource response to incidents on county-owned roadways with county and local public safety agencies. |
| Pinellas Suncoast Transit Authority | Coordinate emergency plans with county EOCs and provide emergency transit services for evacuations, fires, and disasters, including reentry services. |
| Pinellas Suncoast Transit Authority | Coordinate transit schedules with other local transit agencies, particularly for transit connections at transit transfer points. |
| Pinellas Suncoast Transit Authority | Coordinate transit security incidents with local police and county sheriffs. |
| Pinellas Suncoast Transit Authority | Coordinate with multimodal transportation agencies, including airports and heavy rail systems. |
| Pinellas Suncoast Transit Authority | Coordinate with the Pinellas County TMC, and the cities of Clearwater and St. Petersburg for traffic signal priority. |
| Pinellas Suncoast Transit Authority | Provide a demand-responsive bus transit plan to users and travelers using the PSTA traveler information system and TD service provider systems. |
| Pinellas Suncoast Transit Authority | Provide automated transit maintenance scheduling on all PSTA vehicles using automated vehicle conditions reporting (future). |
| Pinellas Suncoast Transit Authority | Provide fixed-route bus and paratransit services for Pinellas County. |
| Pinellas Suncoast Transit Authority | Provide operator instructions and receive schedule performance data from PSTA vehicles while in service. |
| Pinellas Suncoast Transit Authority | Provide transit passenger electronic fare payment capabilities on all PSTA vehicles. |
| Pinellas Suncoast Transit Authority | Provide transit schedule and fare information to the FL511 and PSTA traveler information systems. |
| Pinellas Suncoast Transit Authority | Provide transit security on all PSTA vehicles using silent alarms and on-board video surveillance (future). |
| Pinellas Suncoast Transit Authority | Provide transit traveler information to FL511, PSTA traveler information systems, and private sector traveler information systems, and make it available on all HART vehicles. |
| Pinellas Suncoast Transit Authority | Track and evaluate schedule performance for all PSTA vehicles. |

## Standards and Specifications

Standards and specifications were associated with the information flows in the District 7 RITSA. Table 9 provides a high-level list of standards that were added to the District 7 RITSA.

Table 9 High-Level List of Standards in District 7 RITSA

| **Document ID** | **Standard Title** |
| --- | --- |
| APTA TCIP-S-001 | Standard for Transit Communications Interface Profiles |
| ASTM E2468-05 | Standard Practice for Metadata to Support Archived Data Management Systems |
| ASTM E2665-08 | Standard Specifications for Archiving ITS-Generated Traffic Monitoring Data |
| CEN - EN 15531-1 | Service Interface for Real-Time Information (SIRI) |
| Contact-Proximity-Interface | Proximity Communication Interface |
| DSRC-UDP | Vehicle-to-Vehicle/Infrastructure using UDP |
| DSRC-WSMP | Vehicle-to-Vehicle/Infrastructure using WSMP |
| GTFS | General Transit Feed Specification (GTFS) Static |
| GTFS-Realtime | General Transit Feed Specification (GTFS) Realtime |
| IEEE 1512 | Standard for Common Incident Management Message Sets for use by Emergency Management Centers |
| IEEE 1512.3 | Standard for Hazardous Material Incident Management Message Sets for Use by Emergency Management Centers |
| IEEE 1570 | Standard for the Interface Between the Rail Subsystem and the Highway Subsystem at a Highway Rail Intersection |
| IEEE 1609.11 | Standard for Wireless Access in Vehicular Environments (WAVE) - Over- the-Air Data Exchange Protocol for Intelligent Transportation Systems (ITS) |
| ISO 19091 | Intelligent transport systems -- Cooperative ITS -- Using V2I and I2V communications for applications related to signalized intersections |
| ITE TMDD | Traffic Management Data Dictionary (TMDD) and Message Sets for External Traffic Management Center Communications (MS/ETMCC) |
| NTCIP 1201 | Global Object Definitions |
| NTCIP 1202 | Object Definitions for Actuated Traffic Signal Controller (ASC) Units |
| NTCIP 1203 | Object Definitions for Dynamic Message Signs (DMS) |
| NTCIP 1204 | Object Definitions for Environmental Sensor Stations (ESS) |
| NTCIP 1205 | Object Definitions for Closed Circuit Television (CCTV) Camera Control |
| NTCIP 1206 | Object Definitions for Data Collection and Monitoring (DCM) Devices |
| NTCIP 1207 | Object Definitions for Ramp Meter Control (RMC) Units |
| NTCIP 1208 | Object Definitions for Closed Circuit Television (CCTV) Switching |
| NTCIP 1209 | Data Element Definitions for Transportation Sensor Systems (TSS) |
| NTCIP 1210 | Field Management Stations (FMS) - Part 1: Object Definitions for Signal System Masters |
| NTCIP 1211 | Object Definitions for Signal Control and Prioritization (SCP) |
| NTCIP-DATEX | NTCIP using DATEX |
| NTCIP-SNMPv1 | NTCIP using SNMPv1 |
| NTCIP-SNMPv1 Secure | NTCIP-SNMPv1 Secure |
| NTCIP-SNMPv3 | NTCIP-SNMPv3 |
| NTCIP-STMP | NTCIP using STMP |
| ProtoBuf | ProtoBuf |
| RSE-C2F | RSE - Center to Field Communications |
| RSE-C2F-SNMP | RSE - Center to Field Communications - SNMP |
| RSE-F2F | Roadside Equipment to ITS Roadway Equipment |
| RSEGateway-VehicleDestination | Vehicle Communications via RSEs, Vehicle Destination |
| RSEGateway-VehicleSource | Vehicle Communications via RSEs, Vehicle Source |
| SAE J2354 | Message Set for Advanced Traveler Information System (ATIS) |
| SAE J2735 | Dedicated Short Range Communications (DSRC) Message Set Dictionary |
| SAE J2945/1 | On-Board System Requirements for V2V Safety Communications |
| SAE J3067 | Candidate Improvements to Dedicated Short Range Communications (DSRC) Message Set Dictionary [SAE J2735] Using Systems Engineering Methods |
| SRC-Legacy | Legacy Short Range Comm Using IEEE 1455 |
| VehicleGateway-CenterSource | Vehicle Cluster from Center |
| WAB-Via-WAID | Wide-Area-Broadcast-Via-WAID |
| WAW-ASN1 | Wide Area Wireless using ASN.1 as encoding method |
| WAW-WWWBrowser-JSON | Wide Area Wireless using JSON as encoding method |
| WAW-XML | Wide Area Wireless using XML as encoding method |
| XML | eXtensible Markup Language |

## Requirements

Requirements were tailored for each new project added to the District 7 RITSA. The list of requirements is too voluminous to warrant practical display in this report. Table 10 provides a sample list of requirements included in the District 7 RITSA.

Table 10 Sample Requirements List

| **Element Name** | **Functional Object** | **Requirement** |
| --- | --- | --- |
| Private Travelers Personal Computing Devices | Personal Device System Executive | The personal device shall include software operating system kernel and executive functions that manage the overall device software configuration and operation and support configuration management, resource management, and govern software installation and upgrade. |
| PSTA Integrated Fare Payment Application | Traveler Fare Management | The public interface for travelers shall provide an interface to a transit user payment device in support of a multimodal electronic payment system providing payment for transit fares, tolls, and/or parking lot charges. |
| PSTA Integrated Fare Payment Application | Traveler Fare Management | The public interface for travelers shall accept and process current transit passenger fare collection information. |
| PSTA Integrated Fare Payment Application | Traveler Fare Management | The public interface for travelers shall calculate a fare based on the origin and destination provided by the traveler, in conjunction with transit routing, transit fare category, and transit user history. |
| PSTA Integrated Fare Payment Application | Traveler Fare Management | The public interface for travelers shall provide an interface to a transit user traveler card in support of payment for transit fares, tolls, and/or parking lot charges. The stored credit value data from the card shall be collected and updated based on the fare or other charges, or the credit identity shall be collected. |
| PSTA Integrated Fare Payment Application | Traveler Fare Management | The public interface for travelers shall provide information to the center for financial authorization and transaction processing. |
| PSTA Transit Management Center | Transit Center Fare Management | The center shall support the payment of transit fare transactions using data provided by the traveler cards / payment instruments. |
| PSTA Transit Management Center | Transit Center Fare Management | The center shall manage the actual value of transit fares for each segment of each regular transit route, including the transmission of the information to transit vehicles and transit stops or stations. |
| PSTA Transit Vehicles | Transit Vehicle On-Board Fare Management | The transit vehicle shall read data from the traveler card / payment instrument presented by boarding passengers. |
| Transit Kiosks | Traveler Fare Management | The public interface for travelers shall accept and process current transit passenger fare collection information. |
| Transit Kiosks | Traveler Fare Management | The public interface for travelers shall calculate a fare based on the origin and destination provided by the traveler, in conjunction with transit routing, transit fare category, and transit user history. |
| Transit Kiosks | Traveler Fare Management | The public interface for travelers shall provide an interface to a transit user traveler card in support of payment for transit fares, tolls, and/or parking lot charges. The stored credit value data from the card shall be collected and updated based on the fare or other charges, or the credit identity shall be collected. |

# Report Summary

This report documents the revisions to the District 7 RITSA as part of the major update activities. The District 7 RITSA Final Update has been posted to the FDOT Architecture Website for access by stakeholders. The FDOT Architecture Website includes access to the District 7 RITSA RAD-IT Database.

Stakeholders are encouraged to provide information about any changes that are necessary to the District 7 RITSA content as they are found. The ITS Architecture Change Request Form can be found on the FDOT website under the Resources tab.