



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**PROPRIETARY PRODUCT CERTIFICATION**

630-020-07  
PROGRAM MANAGEMENT  
06/16

To: Jim Stroz, P.E.  
Design Engineer

Date: 1/23/2019

Financial Project ID: 440900-1&2-52-01 New Const.  RRR   
Federal Aid Number: N/A  
Project Name: I-75 Florida's Regional Advanced Mobility Elements  
State Road Number: SR 93 Co. / Sec. / Sub.: Marion County  
Begin Project MP: 22.607 End Project MP: 36.745  
Full Federal Oversight: No  Yes  Note: If Yes, submit to FHWA Director.

A justification and all supporting documents must be attached to this document.  
Mark the appropriate certification:

"I, Dale W. Cody, P.E., PTOE, Senior Vice President, of the Metric Engineering, Inc.  
*Print Name of Initiator* *Position Title* *Name of Agency*

do hereby certify that in accordance with the requirements of 23 CFR 635.411(a)(2),  
Mark appropriately (choose only one option):

- that this patented or proprietary item is essential for synchronization with existing highway facilities.
- that no equally suitable alternative exists for this patented or proprietary item."

1/23/2019

Signature

Date

For Department Use Only

"I, JAMES S. STROZ, JR., DISTRICT TRAFFIC OPS. ENGINEER,  
*Print Name* *Position Title*

of the Florida Department of Transportation, do hereby approve this certification request made in accordance with the requirements of 23 CFR 635.411(a)(2),  
Mark appropriately (choose only one option):

- that this patented or proprietary item is essential for synchronization with existing highway facilities.
  - that no equally suitable alternative exists for this patented or proprietary item."
- Identify any conditions and limitations:

1/24/19

Signature

Date


Financial Project ID: 440900-1-52-01 and 440900-2-52-01

Federal Project Number: N/A

Name of Initiator: Masood Mirza, Marion County Traffic Engineer

ITEM	Patented or Proprietary Item is Essential for Synchronization with Existing Highway Facilities	No Equally Suitable Alternative Exists for this Patented or Proprietary Item	APPROVED	NOT APPROVED
Temple/Siemens Group, Wired Cabinet Assembly TS-2 Type 6 model	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Temple/Siemens, M62 ATC Controller NEMA TS2 Type 1 w/Ethernet	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EDI, E16 MMU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Temple/Siemens, Vehicle Detector – Loop 2 Channel LCD Detector	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Temple, UPS model FXM 1100 with 4 Alphacell 100 XTV 12-volt batteries with Temple FL08 cabinet	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cyberlock, Traffic Cabinet Lock – Electronic Cylinder Description Part Number: CL-TCI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Iteris, Vehicle Detector video model Vantage Edge 2 with Edge Connect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Iteris, Bluetooth and Wi-Fi Travel Time System Vantage Velocity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ITS Express, Managed Field Ethernet Switch model 8012-24 (fiber optic Ethernet switch)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Siquira H.264 CCTV Camera HSD820H3-E with power supply PA-02-US and bracket adapter PTM01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>




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James S. Stroz, Jr, P.E.

District Traffic Operations Engineer



## Marion County Board of County Commissioners

Office of the County Engineer

412 SE 25th Ave.  
Ocala, FL 34471  
Phone: 352-671-8686  
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January 23, 2019

Mr. Jim Stroz, P.E.  
District 5 District Traffic Operations Engineer  
Florida Department of Transportation  
719 South Woodland Blvd  
DeLand, FL. 32720-6800

**Subject: Justification for Preferred Use of Proprietary Products for Traffic Signal and ITS Equipment by County for I-75 FRAME – FPN: 440900-1-52-01 and 440900-2-52-01**

Dear Mr. Stroz:

As a part of the above referenced project, we are requesting approval of the attached, signed and completed Proprietary Product Certification Form 630-020-07 for the following proprietary products for the Marion County Traffic Operations Division:

1. Temple/Siemens Group, Wired Cabinet Assembly TS-2 Type 6 model
2. Temple/Siemens Group, M62 ATC Controller NEMA TS2 Type 1 with Ethernet
3. EDI, E16 Malfunction Management Unit (MMU)
4. Temple/Siemens, Vehicle Detector – Loop 2 Channels LCD detector
5. Temple, UPS model FXM 1100 with 4 Alphacell 100 XTV 12-volt batteries and these items shall be housed in a separate Temple FL08 cabinet that is attached to the Temple/Siemens type 6 cabinet
6. Cyberlock, Traffic Cabinet Lock – Electronic Cylinder Description Part Number: CL-TCI
7. Iteris, Vehicle Detector Video model Vantage Edge 2 with Edge Connect
8. Iteris, Bluetooth and Wi-Fi Travel Time System Vantage Velocity
9. ITS Express, Managed Field Ethernet Switch model 8012-24 (fiber optic Ethernet switch)
10. Siquira H.264 CCTV Camera HSD820H3-E with power supply PA-02-US and bracket adapter PTM01

This equipment is being requested for the traffic signal and ITS equipment installation along corridors: US 441, US 301, US 27, SR 40, SR 44, SR 200, SR 326, SR 464 and I-75. Approval of these proprietary products will allow consistency with existing equipment within the County providing synchronization and reducing cost by eliminating the need for additional training and inventory. Please find further justification for the use of these products on the following pages.

1. Temple/Siemens Group, Wired Cabinet Assembly TS-2 Type 6  
Evidence for Synchronization:
  - a. Function: The Temple/Siemens TS-2 Type 6 Cabinet is consistent with the existing traffic signal cabinets in Marion County and is compatible with the traffic controller and MMU used by the County. The County has been using Temple/Siemens cabinets for 20 years.

- b. Logistics: County staff is familiar with the Temple/Siemens cabinet and able to quickly identify, repair and maintain the equipment reducing impacts to the traveling public. In addition, the County stocks and maintains spare Temple/Siemens cabinets and parts, which provides interchangeable parts for their entire traffic signal system reducing overall costs and requiring no additional training. Using this cabinet provides the most efficient use of the County's limited staff and resources while minimizing delay to the traveling public.

2. Temple/Siemens Group, M62 ATC Controller NEMA TS2 Type 1 with Ethernet

Evidence for Synchronization:

- a. Function: The Temple/Siemens M62 TS-2 Type 1 ATC controller with Ethernet is consistent with the existing traffic signal controllers and is compatible with the Temple/Siemens cabinet and MMU used throughout the County. This controller is compatible with the Traffic Management Center's (TMC) Temple/Siemens central software and the Temple/Siemens cabinet. The display screen and menu navigation panel allow County staff to efficiently troubleshoot and program in the field. The County installed its first Temple/Siemens controller 20 years ago giving them 20 years of experience with Temple/Siemens controllers.
- b. Logistics: County staff is familiar with the software and programming the Temple/Siemens controller allowing them to quickly identify, program and maintain the equipment reducing impacts to the traveling public. In addition, the County stocks and maintains spare Temple/Siemens controllers and can quickly replace any failing or damaged controllers. The County has been utilizing the Temple/Siemens central system for over 8 years and has in depth knowledge of the controller hardware and software requiring no additional training. Using this controller provides the most efficient use of the County's limited staff and resources while minimizing delay to the traveling public.

3. EDI, Malfunction Management Unit (MMU)

Evidence for Synchronization:

- a. Function: The EDI MMU is consistent with the existing MMUs used throughout the County. The MMU monitors the traffic signal system for conflict, improper sequencing, incorrect timing and improper signal voltage levels. This MMU can be configured to the Temple/Siemens NEMA TS2 Type 1 ATC controller and is compatible with the Temple/Siemens TS-2 Size 6 cabinet. The County has been using the Temple/Siemens MMU for over 10 years.
- b. Logistics: County staff is familiar with the Temple/Siemens MMU allowing them to quickly identify problems and maintain the equipment reducing impacts to the traveling public. In addition, the County stocks and maintains spare Temple/Siemens MMUs and can quickly replace any failing or damaged MMUs. The County has been utilizing the Temple/Siemens MMUs for over 10 years with minimal issues and is familiar with the checks and diagnostics it runs to troubleshoot problems and no additional training is required. Using this MMU provides consistency and the most efficient use of the County's limited staff and resources while minimizing delay and increasing safety for the traveling public.

4. Temple/Siemens Group, Vehicle Detector – Loop 2 Channels detector

Evidence of Synchronization:

- a. Function: The Temple/Siemens Group Loop 2 Channels detector is consistent with the existing traffic signal system deployment along this corridor. This detector can be configured for compatibility with the County's Traffic Operations Center software and is compatible with the existing traffic signal infrastructure and functionality.
- b. Logistics: The Temple/Siemens detector is utilized throughout the County's traffic signal system and compatible with the existing traffic signal network. County staff is experienced with this detector and the features it provides.

5. Temple, UPS model FXM 1100 with 4 Alphacell 100 TV 12-volt batteries and these items shall be housed in a separate Temple FL08 cabinet that is attached to the Temple/Siemens Type 6 cabinet  
Evidence for Synchronization:
  - a. Function: The Temple UPS Model FXM 1100 is consistent with the existing traffic signal system used throughout the County. This UPS and associated Alphacell batteries are contained within the Temple FL08 UPS cabinet which attaches to the side of the Temple/Siemens cabinet mentioned previously, reducing the footprint of the assembly. The County has been utilizing this UPS for over 10 years with minimal issues.
  - b. Logistics: County staff is familiar with the Temple UPS hardware and the installation of the batteries and UPS cabinet allowing them to quickly troubleshoot problems reducing impacts to the traveling public. In addition, the County stocks and maintains spare Temple UPS assemblies and can quickly replace any failing or damaged UPS assemblies. The County has been utilizing the Temple UPS for over 10 years has in depth knowledge of the equipment and no additional training is required. Using this UPS provides the most efficient use of the County's limited staff and resources while minimizing delay to the traveling public.
  
6. Cyberlock, Traffic Cabinet Lock – Electronic Cylinder Description Part Number: CL-TCI  
Evidence for Synchronization:
  - a. Function: The Cyberlock, Traffic Cabinet Lock is consistent with the smart mechanical key system recently installed in over 240 existing cabinets throughout the County. This Cyberlock provides accountability by auditing authorized and unauthorized entry attempts to all traffic controller cabinets and UPS cabinets. The County has recently switched all the existing traffic control cabinet and UPS cabinet locks to the Cyberlock Traffic Cabinet lock Electronic Cylinder.
  - b. Logistics: County staff has recently installed the CyberLock smart mechanical key system allowing them to maintain interoperability and access to equipment between agencies (County keys working with the FDOT system and FDOT keys working with the County System), it is imperative to use the same product. In addition, the County stocks and maintains spare Cyberlock Traffic Cabinet locks and can quickly replace any failing or damaged locks. The County is now using this lock throughout its entire traffic signal system and requires no additional training. Using this Cyberlock provides the most efficient use of the County's limited staff and resources while minimizing delay to the traveling public.
  
7. Iteris, Vehicle Detector Video model Vantage Edge 2  
Evidence for Synchronization:
  - a. Function: The Iteris Vehicle Detector Video Model Vantage Edge 2 System is consistent with the existing video detection used throughout the County. The system includes a cabinet processor and video cameras. The County has been utilizing the Iteris Vehicle Detector Video model Vantage Edge 2 for over 10 years with minimal issues.
  - b. Logistics: County staff is familiar with the equipment, software and hardware for the Iteris Vehicle Detector Video model Vantage Edge 2 allowing them to quickly replace, program and troubleshoot problems reducing impacts to the traveling public. In addition, the County stocks and maintains spare Iteris parts such as processor and camera equipment and can quickly replace any failing or damaged equipment. The County has been utilizing the Iteris Vehicle Detector Video Vantage Edge 2 for over 10 years and has in depth knowledge of the Iteris equipment, hardware and software and requires no additional training. Using this Iteris Vehicle Detector Video model Vantage Edge 2 system provides the most efficient use of the County's limited staff and resources while minimizing delay to the traveling public.

8. Iteris, Bluetooth and Wi-Fi Travel Time System Vantage Velocity

Evidence for Synchronization:

- a. Function: The Iteris Bluetooth and Wi-Fi Travel Time System Vantage Velocity is consistent with the existing Travel Time System that is used throughout the County. The system is made up of Field Processing Units, Antennas and Host Software with a minimum of two field deployment sites. The system collects Media Access Control (MAC) addresses and derive, through the System's address matching capability, discrete travel time data for tracked & matched vehicles between field units and provide for processing and analysis. The County has been utilizing this Bluetooth system for the past 5 years with minimal issues.
- b. Logistics: County staff is familiar with Vantage Velocity system and can quickly troubleshoot issues and reduce downtime. Vantage Velocity is already part of the county's traffic system. Additional Velocity units would enhance the ability to deliver real time network with the county's communication system. The County 's existing Bluetooth readers are Vantage Velocity and consistency of the system provides interoperability with the existing devices and the existing host software. This allows the County to perform TT and O-D analysis between the new devices and the existing. This product is interchangeable with products in the County 's maintenance inventory. The County Traffic Division maintenance staff is already trained and use of a new system would require signification training to operation and maintain. The County will maintain and operate the system after installation and approval. The following products are needed for the system:
  - i. Rack mount Velocity field unit, Ethernet connection with a Bluetooth reader and field software for collection of MAC addresses
  - ii. Vantage Velocity antenna w/ short 9" mounting bracket, 3/4" feed through bulkhead mount, dual connection 800-2700 MHz (3-5dBi) & 2400-2485 MHz (5dBi).

9. ITS Express, Managed Field Ethernet Switch model 8012-24 (fiber optic Ethernet switch)

Evidence for Synchronization:

- a. Function: The ITS Express Managed Field Ethernet Switch Model 8012-24 is consistent with the existing network deployment along these corridors and links traffic signal Ethernet devices. This switch is compatible with the TMC's central software as well as the previously mentioned products. County staff have been using ITS Express Switches for the past 10 years with minimal issues.
- b. Logistics: This ITS Express switch is compatible with the existing traffic signal network. County staff is experienced with ITS Express Switches. The County Traffic Division maintenance staff is already trained and the use of a new family of switches would require significant training for operations and maintenance. A new family of switches could also create integration and interoperability issues.

10. Siqura H.264 CCTV Camera HSD820H3-E with power supply PA-02-US and bracket adapter PTM01

Evidence for Synchronization:

- a. Function: The Siqura H.264 CCTV Camera HSD820H3-E with power supply PA-02-US and bracket adapter PTM01 is consistent with the CCTV deployment along these corridors. This camera is compatible with the TMC's central software as well as the previously mentioned products. The County has been using H.264 CCTV Cameras for the past 6 years with minimal issues.
- b. Logistics: The Siqura H.264 CCTV Camera is compatible with the existing traffic CCTV system. County staff is experienced with Siqura H.264 CCTV Cameras. The County Traffic Division maintenance staff is already trained, and the use of a new CCTV system would require significant training for operations and maintenance.

In conclusion, Marion County is requesting that the proprietary products listed in this document be furnished for this project. If you have any questions, please feel free to contact me at (352) 671-8378 or via email at [Masood.Mirza@marioncountyfl.org](mailto:Masood.Mirza@marioncountyfl.org).

Sincerely,



*Masood Mirza* 1/25/2019

Masood Mirza, PhD, P.E., PTOE  
Marion County Traffic Engineer