APPENDIX A Project Risk Assessment and Regulatory Compliance Checklist (Required for Federally Funded ITS Project)

Instructions for submitting checklist:

Project manager (individual responsible for the execution and completion of ITS Project, i.e. FDOT PM or local agency PM depending on project ownership) must submit completed form electronically as follows:

| To Whom | By When | Under What Conditions |
|--|--|---|
| FHWA Florida Division ITS Engineer | Prior to authorization of federal funds, and Within 90 calendar days prior to FDOT final acceptance (complete checklist) | Project under full FHWA oversight |
| FDOT District TSM&O Program Engineer | Within 30 calendar days following FDOT final acceptance | All projects |
| FDOT District LAP Administrator | Prior to authorization of federal funds, and Prior to FDOT final acceptance (complete checklist) | Local agency project under FDOT delegated oversight |
| FDOT Central Office TSM&O Program ITS Coordinator (<u>sysandarch@dot.state.fl.us</u>) | Prior to authorization of federal funds, and Within 30 calendar days following FDOT final acceptance (complete checklist) | All projects |

| SECTION 1 – Pro | oject Information | | | |
|---|---|--|--|--|
| 1.1 Financial Project ID: 433040-1-52-01 | 1.2 Agency: FDOT District 5 | | | |
| 1.3 Agency Project Manager's name, phone and e-mail: | | | | |
| Sofie Liatsos, 386-943-5242, Sofie.Liatsos@dot.state.fl.us | | | | |
| 1.4 Project title, description, and location: | | | | |
| SR 434 from Mitchell Hammock Road to Alexandria Blvd, improvement of SR | | | | |
| 434 from MP 2.780 to MP 3.042 including a new traffic signal at the intersection | | | | |
| of SR 434 & Alexandria Blvd. | | | | |
| 1.5 Nature of work: Software development ITS implement Operations Maintenance (Equipment of If Other, explain: | ation 🖾 Traditional construction with ITS replacement) 🗌 Other | | | |
| 1.6 Questions: | | | | |

<u>Instructions for answering questions:</u> If you are unsure about a question, be conservative. If all "Yes" are selected, that is a <u>preliminary</u> indication of a low-risk project. If there is even one "No" selected," the project is high-risk. Use Table 1: Risk Assessment for Intelligent Transportation System (ITS) Projects within the procedure for additional details regarding each question.

| | Yes | No |
|--|-------------|----|
| a. Will the project depend on only your agency to implement and operate or is there an existing multi-agency agreement in place? | \boxtimes | |
| b. Will the project use only software proven elsewhere, with no new software writing or no software at all? | \boxtimes | |
| c. Will the project use only hardware and communications proven elsewhere or no hardware at all? | \boxtimes | |
| d. Will the project use only existing interfaces (no new interfaces to other systems)? | \boxtimes | |
| e. Will the project use only existing system requirements that are defined in writing? | \boxtimes | |
| f. Will the project use only existing operating procedures that are defined in writing? | \boxtimes | |
| g. Will the project use only technologies with service life longer than 2-4 years? | \boxtimes | |

SECTION 2 – Regulatory Compliance Information

<u>Instructions for answering regulatory compliance items:</u> Ensure each item is fully addressed and documented before project completion as these items are required in 23 CFR 940.11. If the preliminary indication shows a low-risk project and you are able to address all seven items in section 2 completely and with certainty, then self-certify the project as low-risk. You may reference existing documents if they are being reused for this project. Otherwise, the project must be classified as high-risk and the System Engineering Project Checklist (Topic Number 750-XXX-YY) and supporting documents required by section 2.2 of the System Engineering and ITS Architecture Procedure (Topic Number 750-040-003) must be completed. If you feel this is not justified, you may request a review of this information by FHWA. Information for items 2.1, 2.2 and 2.7 is required upon first submittal. If any of the other items below cannot be fully addressed now, but will be answered during the project implementation, please indicate the step at which the items will be answered and resubmit in accordance with instructions for

2.1 Identification of portions of the Regional ITS Architecture (RITSA) being implemented (23 CFR 940.11 (c)(1)):

<u>Instructions:</u> Locate RITSA. In the RITSA, the project might be identified specifically by name and agency, or by a more generic description (e.g. "Arterial Traffic Management"). For high-risk projects, indicate where the PITSA information can be found in the Concept of Operations. If listed in the RITSA, document which inventory elements, service packages, subsystems, and/or information flows are being completed in this project, either below or in an attached document. If there is no information in your RITSA, arrange with your District TSM&O Program Engineer to provide this information when your project is designed; the Central Office TSM&O Program will use it in the next update of the RITSA.

ATMS03 (Traffic Signal Control) and EM02 (Emergency Vehicle and Roadway Subsystems)

2.2 Identification of participating agencies roles and responsibilities (23 CR 940.11 (c)(2)):

<u>Instructions:</u> Can you identify all stakeholders that must participate in the implementation phase of this project? What are their roles/responsibilities? Have they committed to the

responsibilities? Some of this information might appear in your RITSA (e.g., "Operational Concepts" or other sections). If this will be defined in a later phase of the project (e.g., Concept of Operations), the RITSA may be a good source to start definition.

City of Oviedo owns the system and Seminole County will maintain under Maintenance Agreement between the two entities.

2.3 Procedures and resources necessary for operations and management of the system (23 CFR 940.11 (c)(7)):

<u>Instructions:</u> Can you identify all stakeholders that must participate in operations, management, and maintenance of the system throughout its life cycle? What are the roles, responsibilities, and resources required from each stakeholder? Examples include: money, special equipment, staff time, special expertise, provision of data, and many more. You should consider hardware, software, and communications issues.

Seminole County maintains and City of Oviedo owns the system.

2.4 Requirements definitions (23 CFR 940.11 (c)(3)):

<u>Instructions:</u> Are the system requirements (functional and performance) already well-defined in writing? If yes, indicate where they can be found (e.g., Std. Specs). If they will be defined in a later phase of the project, the applicable high-level functional requirements in the RITSA may be a good starting point for writing them. The focus is on "what" functions must be performed – not on "how" the technology will be used to perform them.

Standard Specifications and existing maintenance agreement.

2.5 Identification of applicable ITS standards and testing procedures (23 CFR 940.11 (c)(6)):

<u>Instructions:</u> Do you know yet if any ITS Communications Standards are applicable to this project? If they are applicable, will you use them? Some of this information might appear in your RITSA. If your RITSA identifies specific Architecture Flows, ITS Standards to consider should also be identified within it.

Yes, fiber will be used to interconnect the new traffic signal controller into the existing signal system back to the ATMS software at the Seminole County TMC.

2.6 Analysis of alternative system configurations and technology options to meet requirements (23 CFR 940.11 (c)(4)):

<u>Instructions:</u> Have you considered alternative designs yet? This could include system configurations; different organizational roles; and alternative hardware, software, or communications technology. If you cannot yet make a choice of available alternatives, this analysis will occur in a later phase of the project (High-Level Design).

Yes, the signalized intersection warranted as part of a safety study.

2.7 Procurement options (23 CFR 940.11 (c)(5)):

<u>Instructions:</u> Have you considered different procurement options for each of the project phases (design, implementation, operation, and management)? These options could include: off-theshelf vs. custom, lease vs. buy, fixed-price vs. cost-reimbursable, etc. Procurement options must consider the level of staff technical expertise, existing agency procurement practices, who will be the project manager, and whether you need a systems engineer and/or system integrator.

The new signal was warranted for safety reasons, therefore this project is being funded by Highway Safety Program.

Comments or additional information (if needed):

List of attachments:

[Source: Caltrans Systems Engineering Review Form. Accessed on March 24, 2014 http://www.dot.ca.gov/hq/LocalPrograms/lam/forms/acrobat/LAPM07I.pdf]