

ORANGE COUNTY ATMS PHASE 3 SYSTEMS ENGINEERING MANAGEMENT PLAN

Project Description:

This project will expand the adaptive signal system along Alafaya Tl, Lake Underhill Rd, University Bv, and SR 426 to serve the fluctuating traffic conditions along those corridors, upgrade signal communication from serial to Ethernet protocol, upgrade the Traffic Management Center video wall from DLP technology to LED technology, provide fiber optic network redundancy to minimize system disruptions, and provide wireless communication to remote signals, where fiber optic is not cost feasible.

Systems Engineering Analysis:

Orange County ATMS Feasibility Study and Implementation Plan prepared by TEI Engineers & Planners in April 2002 covered all requirements of 23 CFR 940.11(c) as follows:

1. Identification of portions of the regional ITS architecture being implemented: see Technical Memorandum 3.
2. Identification of participating agencies roles and responsibilities: see Technical Memorandum 3.
3. Requirements definitions: see Technical Memorandum 2 for the communication system, 4 for the central system, and 5 for intersection control.
4. Analysis of alternative system configurations and technology options to meet requirements: see Technical Memorandum 8.
5. Procurement options: see Technical Memorandum 7.
6. Identification of applicable ITS standards and testing procedures: see Technical Memorandum 3.
7. Procedures and resources necessary for operations and management of the system: see Technical Memorandum 6.

Based on the above, the project was considered a low risk ITS project and the roadway process was implemented. Model Systems Engineering matrix for the proposed Adaptive Signal Control Technology is attached.