

Project Scope

FPN (If Known): **FAN:** TBD

Name of Project: Orange County Advanced Traffic Management System Phase 3

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Project Scope/Description, Termini, Project Length:

This project includes the equipment purchase of an adaptive signal system and Bluetooth devices for travel time performance measurement at 41 existing traffic signals along Lake Underhill Rd from Legacy Pl to Woodbury Rd, Alafaya Tr from Curry Ford Rd to McCullough Rd, University Bv from SR 436 to SR 434, SR 426 from Balfour Dr to Goldenrod Rd.

This project will add adaptive capabilities to the existing coordinated signal system. All the signals are relatively close and are expected to be coordinated as three groups. The adaptive capability and interfaces will be provided for signals operated by Orange County Traffic Engineering. The adaptive system will be integrated with Siemens M52 signal controllers. The communications infrastructure will use Ethernet based fiber optic cable at all intersections with remote and TMC network access which will be shared with other agencies. The allowable states in In-Sync modules will be configured by the vendor. For all intersections listed above, Video detection will be installed for all approaches. Replacement or repair of defective or failed equipment will be covered for 2 years by the manufacturers' warranties plus 3 years by extended warranty. The labor cost of replacement during this period will be included in the purchase price. The agency expects maintenance of parts and equipment and of all adaptive system software for a period of 5 years will be included in the purchase price.

Bluetooth devices will be provided for 34 intersections to measure travel time before and after the installation of the above equipment and quantify improvement in system performance.

In addition, the project will purchase equipment to upgrade signal communication from serial to Ethernet protocol at 100 intersections, provide wireless communication to 20 remote signals, where fiber optic is not cost feasible, and replace the Traffic Management Center video wall from DLP technology to LED/LCD technology. These improvements will expand the capabilities of our signal communication and TMC video display system and improve energy efficiency.

Intersections receiving the equipment and equipment description are attached.