

FY2016 MAG TRAFFIC SIGNAL OPTIMIZATION PROGRAM

Questions & Answers

What types of projects are eligible for the TSOP?

The goal of this program is to improve traffic signal operations. Therefore, only projects that will result in improvements to traffic operations through optimized signal timing and training will be considered. Four types of projects will be carried out under this program:

- A. Regional ICM Projects Involving Signal Optimization** – Integrated Corridor Management (ICM) Projects that affect both freeway and arterial operations will receive the highest priority during project review. The scope for these projects must be developed collaboratively by two or more agencies and the application must be submitted by one of the agencies. These projects would involve data collection, new signal timing and field implementation. One or more of these projects may be designated for a before-and-after evaluation by an independent consultant if it involves regular timing improvement. The project cost must be less than \$60,000.

- B. Single/Multi-Agency TSOP Projects:** An agency may submit ONLY one single-agency TSOP project. However, an agency may participate in any number of multi-agency or regional TSOP projects. Each single project that is not of a regional scale must be less than \$30,000 in estimated cost. The multi-agency projects could be funded up to \$60,000.

Single/Multi-Agency Signal Timing Projects: These projects could involve data collection, new signal timing and field implementation. During TSOP project selection, the ITS Committee may designate some projects for a before-and-after evaluation by a MAG on-call consultant.

Single-Agency Traffic Data Collection Projects: An agency may request a project that is limited to the collection of traffic data for the purpose of generating new signal timing using agency staff. For such projects, the project application must indicate within how many weeks, from the end of data collection the agency intends to implement new signal timing in the field (maximum 4 months allowed). All traffic data collection projects must include a before-and-after evaluation using the MAG methodology for travel time comparison. This evaluation may be carried out by a MAG on-call consultant (within 1 month of timing implementation) or by agency staff (within 6 months of delivery of traffic data). If the local agency assumes responsibility for performing the before-and-after evaluation, a report must be submitted to MAG in 6-months.

C. SYNCHRO Network Development Projects: SYNCHRO Network Development Projects: A single-agency may request a project to develop a SYNCHRO network. For such projects, data collection, optimized signal timings and field implementation must be included on at least one or more arterial corridor(s) within the SYNCHRO network. During TSOP project selection, these projects may be designated by the ITS Committee for a before-and-after evaluation by a MAG on-call consultant. Estimated project cost must be less than \$30,000.

How will projects be selected?

Candidate projects will be evaluated by the MAG ITS Committee, supported by MAG staff, and a recommendation generated based on the goals of the Traffic Signal Optimization Program.

Who will carry out the projects?

All projects will be carried out by qualified consultants under contract with MAG to provide on-call consulting services. Work associated with before-and-after studies may be carried out by local agencies with a report submitted to MAG.

What about on-going construction?

TSOP projects should not be proposed for any areas that would be impacted by current or planned construction activities at least for the next 9 months.

What is included in a Before-and-After Study?

The “before” condition refers to the existing timing setting operated in the field prior to the project. The “after” condition refers to the signal timing settings following final field adjustments. The floating car method is the common practice for conducting before-and-after study. Travel time, number of stops and travel speed for the coordinated phases on both directions during all the analysis periods shall be collected. The number of travel time runs will be based on the current MAG methodology for this purpose. Other measurements such as queue lengths, intersection delays for all movements including side streets may be collected for more comprehensive analysis. The estimated reductions in fuel consumption and emissions will be generated using the SYNCHRO model. The Before-and-After studies may be assigned to a consultant or in some cases, performed by the local agency.

What are Local Agency Responsibilities?

Local agencies that are involved in a project must:

- 1) Provide agency staff time to review and approve project deliverables per the project schedule,

- 2) Provide agency staff time to utilize consultant assistance in implementing timing plans, and
- 3) Commit to completing the project tasks to be performed by local agency staff within the time frames stipulated for different project types.

How will projects be initiated?

All TSOP applications will be evaluated by the MAG ITS Committee to generate a recommendation that will go through the formal review process at MAG with final approval by the MAG Regional Council. Upon approval of TSOP projects, the MAG project manager assigned to a project will coordinate with the local agency project manager and the MAG on-call consultant assigned to the project, to develop and finalize the project's scope of work. A Task Order for performing project tasks, under the terms of the MAG on-call services contract, will be developed and executed by MAG. A project kickoff meeting will be coordinated by the MAG project manager and will be held either at the agency offices or at MAG.

How will these projects be managed?

Each agency will appoint a project manager who will be responsible for coordinating with the MAG project manager and the consultant. Following the project kickoff meeting that will be coordinated by the MAG project manager, the consultant will work directly with the agency. The agency will be responsible for ensuring the delivery of services by the consultant, as specified in the scope of work, the planned project schedule and the implementation of the signal timings. Consultant's invoices and progress reports related to project tasks will be received by MAG. When necessary, MAG will consult with the agency project manager to confirm project progress prior to payment of invoices. If any problems arise during the execution of a project, the agency will promptly notify the MAG project manager.

MAG will not be responsible for any work performed by the consultant that falls outside the approved project scope of work, as described in the MAG Task Order.