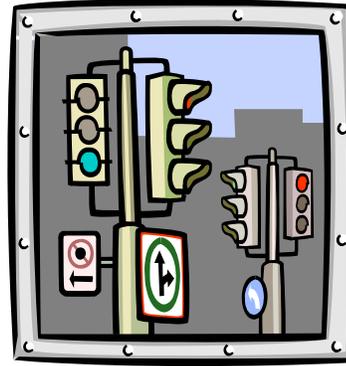


MAG TRAFFIC SIGNAL OPTIMIZATION PROGRAM

The Traffic Signal Optimization Program has proved to be one of the most cost effective ways to reduce delay, better utilize existing transportation infrastructure and reduce emission. The MAG Intelligent Transportation Systems Committee championed the initiation of this program in 2004 to provide traffic engineering assistance for refining signal operations across the MAG region. Since the start of the program, a total of thirty seven projects have been completed. MAG on-call consultants are utilized to provide technical assistance to member agencies for improving traffic signal coordination, optimization, training for agency staff, and review of signal operations.



Questions & Answers

What types of projects are eligible for the TSO program?

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. Final determination of whether a project is eligible will be made by MAG. The following examples describe the range of projects that may be carried out under this program:

1. Provide training to staff on developing signal timing and traffic simulation modeling.
2. Gather required field data and analyze an existing arterial traffic operations problem.
3. Establish the city street network model for running the SYNCHRO model
4. Develop alternative signal timing plans, review timing plans through traffic simulation and select and implement new signal timing plans.

How are projects selected?

Candidate projects are evaluated by the MAG ITS Committee and ranked using factors such as whether the signals are presently coordinated, the availability and capability of staff to conduct the project, whether this is a multi-agency project, the level of

congestion/delay, and the longevity of the project impact. Project ranking is performed following the Project Scoring Criteria shown below:

Project Scoring Criteria

<p><u>Technical Merit (Max 25 pts):</u> Based on the complexity of the project’s problem, projects are designated as High (25 pts), Medium (15) or Low (5)</p>
<p><u>Multi-Agency (Max 10 pts):</u> Number of agencies participating in the project determines score. Two or more agencies (10 pts) Single agency (5 pts)</p>
<p><u>Intersection/Corridor Performance (Max 40 pts):</u> The worst AM or PM peak period intersection Level of Service* addressed by the project. LOS F: 40 LOS E: 30 LOS D: 20 LOS A-C: 0 *Based on 2003 MAG Travel Time Study or more current local data</p>
<p><u>Longevity of Project Impact (Max 0 pts)</u> Likelihood of major road construction occurring in the vicinity of proposed project within the next 2 years, thus minimizing the effect of signal retiming. <u>High (-10)</u> <u>Med (-5)</u> <u>Low/None (0)</u></p>

Maximum project score = 75 points

Who carries out the projects?

Projects are carried out by local consultants. MAG has a number of on-call contracts with qualified local traffic engineering consulting firms as part of the MAG ITS and Safety On-Call Services contract. Projects are assigned to qualified consultants generally based on how the firms ranked for Traffic Engineering Services in the on-call RFQ procurement.

How are projects initiated?

Once candidate projects are received at MAG, the list is evaluated and ranked (if necessary) by the MAG ITS Committee using the Project Scoring Criteria. If the funds

available are inadequate to fund all, projects are initiated based on this ranking. MAG coordinates with the designated agency staff member to finalize the scope of work and assign the project to an on-call consultant. Once a project has been assigned to a consultant, MAG develops a Task Order for the execution of that project, under the terms of the on-call contract.

How are these projects managed?

Each agency is required to appoint a Project Manager who will be responsible for coordinating with the MAG Project Manager and the consultant. MAG will hold a project kickoff meeting at the agency offices or at MAG. Once a project is launched, the consultant works 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, and the project schedule. Consultant's invoices and progress reports are received by MAG. MAG coordinates with the agency to confirm project progress prior to payment of invoices. If any problems arise during execution of a project, the agency notifies the MAG Project Manager.