

Client

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Illinois Department
of Transportation
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Location

Illinois, USA

Services

- Optimization of Signal Timings
- Traffic Responsive Operation
- Benefit/Cost Analysis

Date

1989 - ongoing

Key Personnel

Doug Brazelton

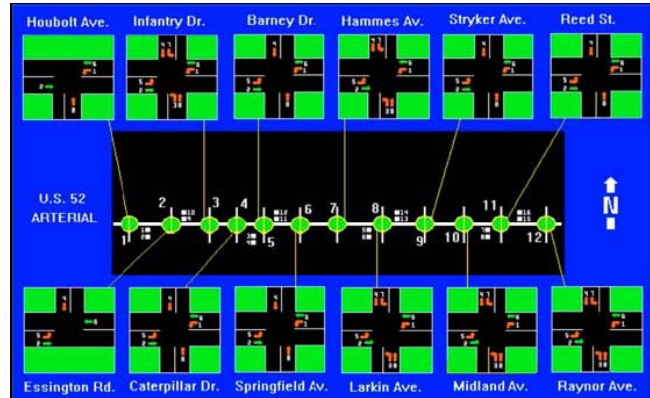
Contract Value

\$4,000,000 over 11 projects

Signal Coordination and Timing (SCAT) Program

Scope of Services

The Illinois Department of Transportation (IDOT) has maintained an ongoing Signal Coordination and Timing (SCAT) program, since the late 1980s. Delcan has been involved in eleven projects, since 1989. IDOT began the program to increase the capacity of its roadways by optimizing signal timings. In addition, signal equipment Enhancements and/or geometric changes, are recommended to make the best use of available roadway capacity.

**Project Description**

The benefits of the SCAT program include reduced travel times for motorists attributed to reduced stops and delay, and a reduction in the emission of pollutants. Delcan has optimized nearly 100 signal systems under the program, which has been effective in optimizing hundreds of signal systems for IDOT. Work elements include:

- Data collection of turning movements and automatic traffic recorder counts at every assigned intersection
- Capacity analysis of every intersection during all periods under consideration
- Optimization analysis to develop ideal timings for all periods under consideration
- Implementation of the optimized timings and fine tuning of the parameters to ensure proper signal operation under actual conditions
- Before and after evaluation of the signal timings to determine the benefits of the optimized timings
- Development of modern graphics for user interface with the signal systems
- Development of traffic-responsive operation to ensure that the proper timing plans are used in the most efficient manner