

Lake County TMC and Implementation Plan

The Lake County Transportation Improvement Project found that there was a 62% growth of Annual Vehicle Miles Traveled on the County highway system from 1990 to 1999 and this growth is expected to continue. The Lake County Division of Transportation recognizes that trying to mitigate the congestion with add-lane and intersection improvement projects is only part of the solution. The use of Intelligent Transportation System (ITS) technologies will allow the County to improve traffic operations. The goals of the initial ITS development are:

- Provide for real time traffic monitoring and traffic management response
- Improve signal system coordination between signal groups and agencies
- Refine event management and corresponding traffic management
- Integrate LCDOT's existing systems to refine overall traffic operations

The Division of Transportation was awarded FHWA funding in federal FY 2001 and FY 2002. Most of the FY 2001 funding was used for the development of an "ITS Feasibility Study and Implementation Plan". This study included the initial phases of a standard engineering approach to develop ITS systems. The study included the following components:

- Existing system review and inventory development, including an inventory database and GIS map
- Review of the status of related ITS standards
- Identification and coordination among regional stakeholders
- Development of a Concept of Operations
- Development of system and interface requirements
- Investigation of Communications issues and alternatives
- Identification of functional and system requirements
- Tradeoff studies:
 - Investigate alternative approaches to signal system integration
 - Integration of LCDOT systems identified in the requirements phase
 - TMC hardware and software
 - Physical communications
 - Lake County Sheriffs and public safety integration
 - Methods for providing information to motorists
 - Integrating maintenance activities
- Development of a comprehensive system architecture including:
 - Alternatives Analysis
 - National ITS Architecture
 - Review of similar systems and potential system components
 - System and communications architecture development
- TMC Facility preliminary design, layouts, rendering and estimates
- Comprehensive system Implementation Phasing Plan (IPP) including:
 - Central ATMS and Signal System phasing plan
 - ITS and signal system field element deployment and upgrade plan
 - Communications Deployment Plan
 - Budget and scheduling of plan components



National Engineering Technology Corp. (NET) is the technical consultant for the Lake County TMC study. The draft IPP is now complete, and the project is moving into the detailed design and deployment stage. The IPP outlines a series of projects from 2003 through 2010 that are designed to incorporate ITS strategies to help the County meet its transportation goals.

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