

Louisiana Traffic Sign Management: An Inventory System

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Problem

Currently, the Louisiana Department of Transportation and Development (DOTD) has no comprehensive system for keeping an inventory and records of traffic signs. Around the country several state highway departments have, or are starting to develop, computer-based sign inventory systems. Coupled with comprehensive programs that involve construction, maintenance, and engineering personnel, these systems help highway agencies

count, locate, and monitor the maintenance and condition of their sign inventories.

When used to their full potential and combined with geographic information systems (GIS), sign inventory systems have served as the cornerstone for comprehensive asset management systems. These can include information on a variety of highway agency properties, including signs, guardrails, traffic signals, pavements, bridges, survey markers, etc. These GIS systems per-



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mit access to precisely count and locate items in the field, monitor their condition, and track changes over time. They can also be used by trained personnel to find unwarranted or "exception" signs, help to determine whether additional signs may be needed, and to monitor field maintenance and replacement programs.

To assist DOTD in developing such a comprehensive system, a field inventory program was proposed. This program will provide the initial field data to start a statewide sign inventory system. More importantly, the proposed project will provide training to DOTD to permit them to determine the best procedures and methods to follow when completing the full statewide inventory task. The project will also serve as the basis for DOTD to estimate future time, labor, and equipment requirements that will be involved in future sign inventory programs.

Objectives

The objective of this project is to complete a pilot traffic sign inventory system for DOTD. The inventory will be completed using state-of-the-art mapping and GIS referencing systems. It is expected that this pilot inventory project will serve as the model for a future statewide inventory and management system that will permit DOTD to track and monitor the number, location, and condition of every traffic sign within their inventory.

This pilot study will involve the collection of key data items from traffic signs adjacent to state roadways within DOTD District 61. The key data that will be collected will include information such as sign type, location (based on GPS coordinates, route number, and log mile, with respect to the roadway), condition, and support device. All data will be recorded and stored in a computerized GIS database.

Description

The proposed project will be completed within the framework of six task items. They are:

Task 1 - Equipment acquisition and set-up.

Task 2 - Data collection.

Task 3 - Validation of database.

Task 4 - Update inventory.

Task 5 - Conduct training for DOTD personnel.

Task 6 - Transfer sign inventory database to DOTD.

Implementation Potential

This is an implementation project and the results of this study will be included in the statewide inventory. At the completion of the project, training sessions will be conducted for DOTD personnel. The techniques that have been found to be most productive in the pilot project will be highlighted in the training sessions.