

*Technology News* is the newsletter of Iowa's Local Technical Assistance Program (LTAP). LTAP is a nationwide effort financed jointly in Iowa by the FHWA, Iowa DOT, Iowa Governor's Traffic Safety Bureau, Iowa Highway Research Board, and Iowa State University Extension.

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The mission of Iowa's LTAP is to foster a safe, efficient, environmentally sound transportation system by improving the skills and knowledge of local transportation providers through training, technical assistance, and technology transfer, thus improving the quality of life for Iowans.

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## Electronic tools for sign management: Are they for you?

SOME OF IOWA'S local transportation agencies use manual, or paper-based, systems for managing information about their traffic control devices. Many agencies, however, have switched to electronic, or computer-based, sign management systems. Would such a switch benefit your agency?

### Advantages of computer-based sign management

Manual systems are basically paper records of an agency's sign inventory. Such systems may be adequate for agencies with small inventories. However, electronic systems help agencies with larger inventories manage their signs and other traffic control devices more aggressively and efficiently.

With electronic systems, sign inventory data are stored in a computer database and can be quickly accessed in a variety of ways. Staff responsible for signs can sort the inventory by kind (stop, yield, etc.), location (geographic coordinates and/or address), date purchased/installed/maintained/replaced, material, or other sign characteristics.

This sorting capability allows staff to, for example,

- schedule maintenance/replacement activities based on any of several characteristics, like age of the signs,
- locate and schedule the replacement of signs made of materials that no longer meet MUTCD recommendations,
- generate replacement cost estimates and other electronic reports,
- generate a list of all traffic control devices at a particular intersection or problem location, and
- identify high vandalism locations and trends.

An engineer or technician working with signs in the field can access and update the electronic files using a portable computer, not only saving time and effort

but also ensuring the system is immediately and continuously up-to-date.

### Choosing the right software

Good basic sign management system software includes the following features:

- user-friendly interface
- easy data entry, retrieval, and sorting
- ability to import, export, and share data with other management systems and other software (like accounting software)

An effective system also allows an agency to document sign inspection and maintenance activities and provides a means of tracking signs from purchase through maintenance activities and replacement.

Some sign management software can be linked to geographic information systems (GIS) software packages and a base map, allowing users to locate signs efficiently on a map.

Enhanced (and usually more expensive) soft-

ware packages may include features such as photographs of traffic control devices.

The FHWA is encouraging agencies' transition to sign management software by offering a free package: Sign Inventory Management System (SIMS 98), developed by the Technology Transfer Center at the University of New Hampshire.

### Getting started

After selecting software, implement your electronic system by

- collecting sign inventory data,
- entering the data into the sign management system, and
- updating data regularly.



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## Can't wait for statewide urban design and specification standards?

IN THE NEXT couple of years, Iowa will become the first state to implement statewide urban design and specifications manuals for public infrastructure improvements.

In the meantime, agencies can use central Iowa's *Standard Design and Specification Manuals*, which were developed by 34 central Iowa jurisdictions and will form the framework for the statewide manuals.

### Order the central Iowa manuals

The current central Iowa manuals (printed in December 2000) are being maintained by Snyder & Associates and are available for any government entity to purchase and use. A detailed order form is online, [www.ctre.iastate.edu/bulletin/urbanspecs.pdf](http://www.ctre.iastate.edu/bulletin/urbanspecs.pdf). Or call Brent Bean or Melissa Leopold at Snyder & Associates, Inc., Ankeny, Iowa, 515-964-2020.

### What's the progress on statewide standards?

The development effort is anticipated to take two to three years. The following organizations and groups are working together to create and implement statewide manuals:

- city and county engineers
- Iowa DOT
- contractors

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Some data may already exist on a paper inventory, but very likely staff will have to collect additional data. Where no written inventory exists, the price tag for information gathering can run from three to five dollars a sign. Many counties have between 5,000 and 8,000 signs; cities, upwards of 25,000 signs or more.

Collecting data, therefore, can be the most costly part of establishing an electronic sign management system.

Between purchasing software and collecting and entering data into the system, getting an electronic system up and running can be expensive. However, the ability to update data quickly and track and manage the inventory proactively can make the investment worthwhile.

- Iowa chapter of the American Public Works Association
- Statewide Urban Standard Design and Specification Manuals Steering Committee
- CTRE

Steering committee members include engineer representatives of the Iowa DOT, metropolitan planning organizations, transportation management agencies, regional associations of local governments, as well as city and county engineers, contractors, and other stakeholders throughout the state.

In addition to standard designs and specifications, the statewide manuals will include design and construction details unique to specific jurisdictions across the state. They will address considerations like materials availability and soil conditions, which may vary among the six state districts.

CTRE is staffing and coordinating the development of the manuals. District subcommittees will identify design and specification particulars unique to specific jurisdictions for inclusion in the manuals.

### For more information

If you have questions about the statewide standards, contact Dale Harrington, associate director for pavements at CTRE, 515-294-8103, [pcconc@iastate.edu](mailto:pcconc@iastate.edu). •

The ultimate purpose for using electronic sign management systems, of course, is to improve traffic control signage and thereby increase road user convenience, reduce crashes, and limit agency exposure to tort liability. Sign management staff must evaluate the benefit/cost of implementing such a system in their own jurisdiction.

### For more information

To find out more about sign management systems, or to obtain a copy of the free FHWA software, contact Tom McDonald, Iowa's Safety Circuit Rider, 515-294-6384, [tmcdonal@iastate.edu](mailto:tmcdonal@iastate.edu). Tom can also provide sign management training.

For information about his county's experience with electronic sign management, contact Mark Nahra, Delaware County engineer, 319-927-3505, [mark\\_nahra@hotmail.com](mailto:mark_nahra@hotmail.com). •

### LTAP Advisory Board

The people listed below help direct the policies and activities of Iowa's Local Technical Assistance Program (LTAP). Contact any of the advisory committee members to comment, make suggestions, or ask questions about LTAP.

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