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## Statewide urban standards offer many advantages

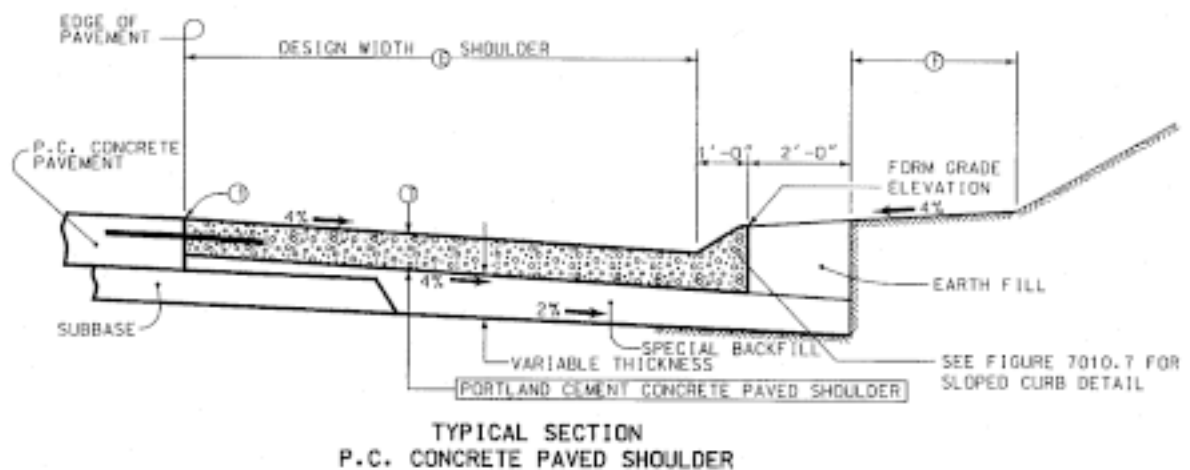
THE STUFF OF A contractor's dream—statewide design and specification standards for urban public improvements—is close to becoming a reality.

Since 1998, the Iowa Department of Transportation (Iowa DOT), the Central Iowa Urban Standard Design and Specifications Committee, and cities throughout the state have been working together to formulate statewide urban design and specification standards (SUDAS) for public improvements. The ultimate goal is to develop manuals of these standards. The manuals—one for design and one for specifications—would encompass statewide standards for all urban public improvements, including street and utility projects.

The advantages of such standards are numerous. They would

- encourage uniformity in design approaches and construction
- reduce planning time
- reduce construction costs
- help reduce errors and miscommunications
- eliminate bias toward materials and methods by promoting tested results
- provide uniform contract documents, bidding procedures, and contract policies

*URBAN . . . continued on page 2*



Two manuals, one for design and one for specifications, would encompass statewide standards for all urban public improvements. The manuals will include illustrations and diagrams like the one above.

Stan Ring, LTAP library coordinator, passed away September 14. See pages 6–7.

Preparation of this newsletter was financed through the Local Technical Assistance Program (LTAP). LTAP is a nationwide effort financed jointly in Iowa by the Federal Highway Administration and the Iowa Department of Transportation. The mission of Iowa's LTAP: To foster a safe, efficient, environmentally sound transportation system by improving 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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## URBAN . . . continued from page 1

- allow governments to benefit from the exchange of ideas and solutions
- relieve local governments of the burdens of updating manuals with new regulations and information about new products and procedures

The current impetus behind the SUDAS manuals dates back to 1995. That's when the technology subcommittee of the Governor's Blue Ribbon Transportation Task Force recommended adopting "common standards for construction specifications and construction equipment" as one way the state could maximize the benefits of road use tax dollars. The recommendation also stated that these standards should be developed through a mutual agreement among the Iowa DOT and Iowa cities and counties.

To help develop the SUDAS, a steering committee that includes representatives of cities, counties, and the Iowa DOT will be appointed by state and local officials. The Center for Transportation Research and Education (CTRE) at Iowa State University will help develop support for statewide urban standards by meeting with the Iowa chapter of American Public Works Association, Iowa County Engineers Association, Iowa League of Municipalities, and metropolitan and regional planning organizations.

Dale Harrington, associate director for pavements at CTRE, will serve as a facilitator for all the groups and provide leadership in the development of the SUDAS manuals. Harrington says that local governments will definitely benefit from statewide urban standards. He notes that 30 central Iowa cities and counties are already experiencing the

advantages of using standard design and specification manuals. The manuals contain federal, state, and local specifications, and were compiled in the last few years by the communities.

Harrington says that because unified specifications are now available in central Iowa, contractors are starting to bid on jobs they typically wouldn't bid on, as illustrated by the experience of the city of Ames. "Previously, the city would have only one or two bidders for construction projects," says Harrington, "but now they're getting from four to six bidders. Increased competition usually means more bidders, less cost."

Before the statewide standards and manuals can be developed, Harrington says that organizational, management, and financial plans must be put in place. He anticipates those plans will be ready for implementation this winter or early next spring. The statewide manuals will be based on the central Iowa standard design and specification manuals and current Iowa DOT standards. Harrington expects the manuals to be published in one to two years.

### For more information

The Local Technical Assistance Program (LTAP) library has a copy of the central Iowa urban standard specifications manual, which was prepared by the Des Moines Metropolitan Improvement Design Standards and Specifications Committee, in cooperation with Snyder & Associates. Contact Traci Stewart, CTRE receptionist, 515-294-8103, [stewartt@iastate.edu](mailto:stewartt@iastate.edu), to request publication 1478, *Urban Standard Specifications for Public Improvements*. •



## Computer expertise

Nick Burdine has joined the staff at the Center for Transportation Research and Education (CTRE). He graduated from Iowa State University in 1999 with a bachelor's degree in computer science. As a student Nick did computer support and web server maintenance for CTRE. He now puts his computer expertise to work researching and developing software tools and applications for transportation-related projects such as the Iowa Department of Transportation's Weatherview web site. He's currently finishing work on a pavement management sectioning tool, which will become part of the pavement management system. •

# Traffic safety sheets: a tool for transportation professionals

LOCAL, COUNTY, and state transportation professionals across Iowa will soon have access to clear, concise, and consistent answers to 25 common traffic and safety questions; transportation professionals may alter the text of these information sheets as appropriate in their jurisdiction and distribute the information to the public when the questions (or similar questions) arise.

Because the traffic safety information sheets provide concise, authoritative answers to many of the questions that transportation professionals are frequently asked by the general public, the sheets are expected to save transportation professionals time and resources, as well as satisfy the public's interest in clear and accurate information on traffic safety issues.

## The questions

Through a survey of approximately 100 transportation professionals in Iowa, the questions most frequently asked by the public were identified. The topics include children's safety, pedestrian and bicyclist safety, speed limit decisions, roadway maintenance and lighting, and the use of signs and signals. A few examples of the questions addressed by these information sheets follow:

- Why isn't there a "School Bus Stop Ahead" sign everywhere a bus stops?
- How does the county make decisions about paving gravel roadways?
- Won't a traffic signal reduce accidents?

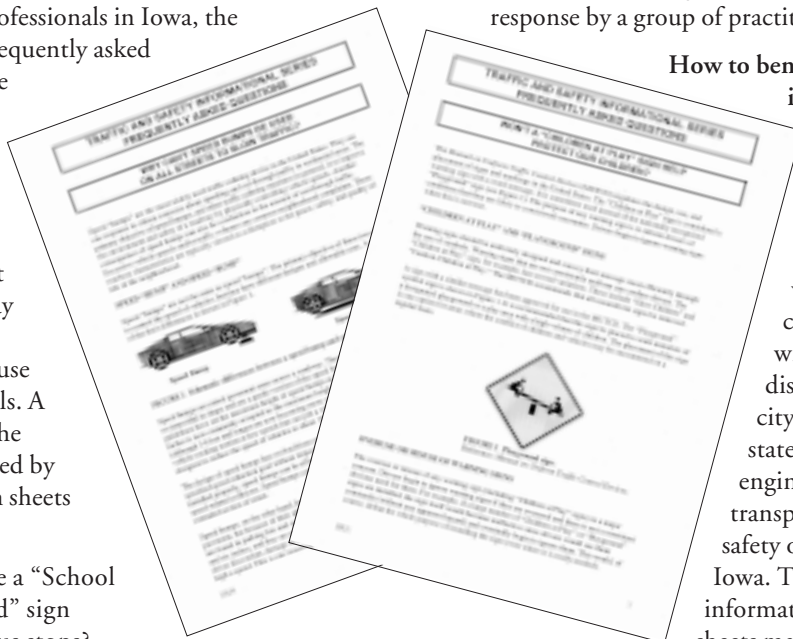
## The answers

The goal of the informational series project was to provide clear, consistent, and correct responses to frequently asked traffic safety questions. Sponsored by the Iowa Department of Transportation, this was

carried out through a collaboration between the Center for Transportation Research and Education at Iowa State University and the University of Iowa. After identifying frequently asked questions, via the survey, researchers carefully drafted answers using authoritative sources such as the *Manual of Uniform Traffic Control Devices* and the American Association of State Highway and Transportation Officials *Roadside Design Guide*.

Most of the answers run about two pages and include documentation of the information sources. The answers are also summarized in a series of one-page information sheets intended for a more general audience.

The questions and answers have been approved by a committee representing local, county, and state transportation professionals. The information sheets have also been tested with a generally positive response by a group of practitioners.



## How to benefit from the information sheets

The traffic and safety informational series sheets will soon be complete, and will be distributed to city, county, and state traffic engineering and transportation safety offices across Iowa. The information in the sheets may be altered, distributed, and used as

seen fit by area officials and/or transportation professionals.

For more information or if you would like copies of the information sheets sent to you, contact Keith Knapp, manager of traffic engineering and traffic safety programs, CTRE, 515-294-8103, [kknapp@iastate.edu](mailto:kknapp@iastate.edu).

## LTAP Advisory Board

The people listed below help guide and direct the policies and activities of the Center for Transportation Research and Education's Local Technical Assistance Program (LTAP). The board meets at least annually.

Contact any of the advisory committee members to comment, make suggestions, or ask questions about any aspect of LTAP.

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Research and Education

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## Putting a stop to red light running

RED LIGHT RUNNING is a serious problem in Iowa and across the country. In 1998, red light running accounted for about 89,000 crashes, 80,000 injuries, and nearly 1,000 deaths in the United States. The cost to the public is estimated to be as much as seven billion dollars per year.

Two possible strategies for reducing red light running are presented here. First, locations with a poor record of red light running crashes should be studied for possible engineering intersection and/or signal problems and any problems should be corrected. Second, counties and communities can establish a public awareness campaign with the assistance of the Federal Highway Administration's (FHWA) Stop Red Light Running program.

### Engineering solutions

Before investing money in a public awareness campaign or considering other strategies, officials should first make sure that a red light running problem is not the result of an engineering issue.

Some locations may suffer from high incidence of red light running crashes because of engineering problems related to the intersection or the improper installation or use of signs and signals. If this is the case, an engineering solution is needed to solve the problem.

Poor intersection sight distance, improper signal timing, and other engineering considerations should be attended to as a first step in putting a stop to red light running.

### Raising public awareness

If the problem is not one that can be solved through engineering, a public awareness campaign may be helpful. FHWA surveys have indicated that most people who run red lights do so because they

are in a hurry. Those same people would probably agree that the time saved by avoiding a red light is not worth a human life. Thus, it is critical that drivers recognize that they may be able to prevent a crash by driving the proper speed, by being aware of other drivers, and by observing all traffic controls, including red lights.

The FHWA has formed a partnership with organizations at federal, state, and local levels to raise awareness of the dangers of red light running and to help reduce related fatalities. The campaign, called the Stop Red Light Running program, has contributed to a 7.5 percent reduction in red light running fatalities and a 9 percent decrease in total red light running crashes in the last two years.

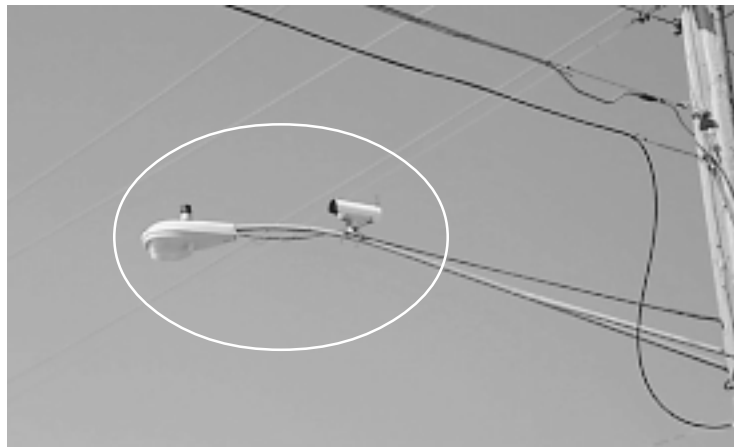
As part of the initiative, the annual National Stop on Red Week was established. This event provides local communities the opportunity to tie their message in with the national program in order to expand the results of their efforts. (This year the National Stop on Red Week took place October 8–14, but counties and communities can establish similar events any time.)

### For more information

Lots of red light running information and community stop red light running campaign materials are available through the FHWA website at <http://safety.fhwa.dot.gov/programs/srlr.htm>.

Some information for this article was provided by Patrick Hasson, Federal Highway Administration.

Some agencies are using red light cameras and video to monitor trouble spots.



*Before investing money in a public awareness campaign or considering other strategies, officials should first make sure that a red light running problem is not the result of an engineering issue.*



## Iowa study of red light running

A STUDY OF traffic signal violations in Iowa, sponsored by the Iowa Department of Transportation and conducted by the Center for Transportation Research and Education (CTRE), is nearing completion. The study provides a comprehensive review of red light running literature, surveys of Iowans' public and professional opinions about red light running, and crash records data and data from intersection observations that identify the scope of the problem in Iowa.

The study includes two surveys. The first was distributed to four professional groups—engineers/administrators, emergency care professionals, driver educators, and law enforcement personnel. Survey participants were asked questions about red light running that related to their professional roles and responsibilities.

The second survey, conducted by the University of Northern Iowa, consisted of telephone interviews with over 1,000 Iowans who were considered to be representative of the general population. This survey sought information about the participants' own involvement in red light running collisions, their opinion of the severity of the problem, and their views about the use of video cameras for enforcement and citation.

The study uses two sources of data to determine the scope of the red light running problem in Iowa. Iowa crash records for the years 1990–1997 provided one source of data. Actual red light running violations were also observed using video cameras installed at selected intersections in Iowa communities.

The emphasis of the research is on increasing safety at signalized urban intersections, not on identifying and prosecuting violators.

Compilation and analysis of data are underway. The final report is expected to be released before the end of the year. For more information, contact Tom McDonald, safety circuit rider, CTRE, 515-294-6384, [tmcdonal@iastate.edu](mailto:tmcdonal@iastate.edu). •

## Motor grader and snow plow rodeos a success

THIS YEAR'S all-season Iowa Maintenance Training Expo was capped off with both a motor grader roдео and a snow plow roдео.

Douglas King from Poweshiek County won first prize in the motor grader competition, edging out Sac County's Paul Strong by one point in the written portion of the competition.

The snow plow competition was won by the team of Mark Goins and Greg Householder from the city of Ankeny. The snow plow roдео includes a written exam, a vehicle inspection, and a driving component.

Many participants went away from the event with mugs, caps, and cash from the raffle. The capstone prize of the raffle was a large-screen television. •



Motor grader operators and snow plow drivers had numerous obstacles to avoid, including cones and mailboxes, during both competitions.



## A tribute to Stan Ring, my friend

**Duane Smith, Associate Director for Outreach**

THIS ARTICLE will be different from ones in the past. It is about my friend, Stan Ring, who died suddenly on September 14. Readers of this newsletter know him as the helpful LTAP library coordinator.



In addition to helping people at the LTAP library, Stan (above, center, and at right) attended many conferences and workshops each year to let people know about CTRE's outreach programs.

### Stan Ring scholarship fund

A scholarship fund has been set up in Stan's name for the Civil and Construction Engineering Department at Iowa State University. To donate, contact the ISU Foundation, Alumni Suite, Memorial Union, 2229 Lincoln Way, Ames, IA 50014.

I first met Stan in 1965 when I came to the Ames central office of the Iowa State Highway Commission from the Red Oak construction residency. Stan was an urban design engineer and I worked nearby in a rural highway design squad. Stan was immediately friendly and helpful and I respected him from the very beginning. Stan seemed to have a gift of teaching even at that stage of his career and enjoyed helping others find their answers.

I kept in contact with Stan after graduating from Iowa State University (ISU) in 1970 with my bachelor's degree. I was reunited with Stan when I returned for my master's degree in 1978. Stan was then one of my professors. He had completed his Ph.D. and was an ISU faculty member. He was very successful in developing courses, advising students, teaching, and conducting research. He was a member of many professional organizations and held offices in many of them.

Ten years later Stan had retired as professor emeritus and was working part time managing library services at the Center for Transportation Research and Education (CTRE) when I returned to ISU to work at CTRE. We were working together again. He was a tremendous role model and mentor.



I watched Stan to see how he approached his work assignments, how he cared for his family, how he interacted with his friends and co-workers. I saw the respect that Stan commanded from everyone he interacted with. I always said that it would be a sad day for me and for the CTRE staff when Stan decided to retire completely. I always envisioned he wouldn't come to work anymore, but assumed he would be around so I could see him and talk to him. I thought about the legacy that Stan would leave behind and I thought of a word, service.

A recent example comes to mind. Stan had arranged a meeting in Independence with maintenance managers from institutions around the state to share about our outreach program. This was a new group for CTRE outreach and Stan was responding to their request for information. When I had to call and share the news about Stan's passing, there was a genuine feeling of loss even though they had not yet met Stan.

Stan genuinely touched Jeff Milk, the person he had been communicating with. Jeff told me, "I never met Stan face to face, but in talking to him over the phone, I knew that he was going to help us. I'm sad that I will never get to meet him."

Stan served us and didn't expect anything in return. Many times Stan put himself last when he elected to serve others. We saw this in Stan's family, in his circle of friends, in his professional associations, and

in his relationships around the office and the university. Stan was the role model in how to serve others. I know many of you reading this message have had the same experience: Stan serving and helping you with whatever was important to you.

I am sure that my story of Stan Ring is not much different from many of yours. We will miss Stan as a colleague but mostly as a friend. •

## Stan Ring dies

STAN RING, library coordinator and technical advisor for the Center for Transportation Research and Education, died September 14, 2000, of a heart attack at Mary Greeley Medical Center in Ames, Iowa. He was 77.

From 1950–1967 Stan worked at the Iowa State Highway Commission. As an urban design engineer, he was in charge of all urban work on Iowa's federal-aid highways and coordinated all freeway design. As assistant urban engineer of planning, he acted as the commission's liaison with federal and local agencies in transportation planning.

In 1967 Stan returned to Iowa State College to teach in the transportation section of civil engineering. He received his Ph.D. from Iowa State in 1973 and continued in the Department of Civil and Construction Engineering until his retirement in 1988. His responsibilities included teaching, advising graduate students, conducting research, and eventually leading the Civil Engineering Extension Program. His most significant research was in wind tunnel analysis of snow drifting and design of low-water stream crossings.

Stan directed Iowa's Local Technical Assistance Program (LTAP) at Iowa State University during LTAP's start-up years from 1983 to 1988. As professor emeritus from 1988 until his death, he served an invaluable role as transportation librarian and technical information resource for the LTAP program at CTRE.

Stan was a tireless promoter of transportation engineering, safety, and continuing education. He is known throughout Iowa's transportation community and nationally for his transportation engineering expertise, knowledge of Iowa's transportation history, and keen interest in new developments and initiatives in civil engineering. •

## Access management info coming

The Access Management Handbook for Iowa and related frequently asked questions (FAQ) sheets will be mailed soon to transportation professionals. Neither the handbook nor the FAQ sheets are intended as hard and fast access management standards for Iowa, but rather as compilations of suggestions and best practices.

The handbook and FAQ sheets are just two of the products resulting from a research project initiated by Iowa's Safety Management Coordinating System Committee several years ago. •

## Slow down work zone traffic

**Tom McDonald, Safety Circuit Rider**

CURRENT technology provides another tool for slowing down work zone traffic. Speed trailers in advance work zones advise approaching drivers not only of the recommended work zone speed limit, but also of their actual speed. Direction sensing radar and large LED displays provide this information to motorists, resulting in a significant average speed reduction.

In addition to advising motorists of their vehicle speed, these units can be a useful public relations tool and, with proper optional equipment, can provide a record of vehicle speeds and volumes to indicate locations where focused enforcement would be most beneficial.

Local law enforcement agencies are often the primary users of speed trailers. Some models can be used in either stationary or mobile applications for work zone activities and for other special purposes such as school zone and neighborhood speed reduction initiatives.

The City of Ames has used a speed trailer to help reduce speeds through work zones this year with good results. West Des Moines and Ankeny have also employed these devices to help control vehicle speeds in sensitive areas. Citizen response to the use of speed trailers has been positive.

The City of Cedar Rapids is studying potential uses and benefits of speed trailers in cooperation with the Iowa Department of Transportation. Initial results have been encouraging.

Several vendors offer a choice of models with numerous options, including traffic data collectors, solar panels, and extended warranties. Cost can vary from approximately \$8,000 to over \$10,000 for a well equipped unit. Safety funds may be available from various sources to help purchase a unit.

If excess vehicle speed is a problem in your jurisdiction, you may want to consider adding a speed trailer to enforcement efforts or to the standard traffic control devices in the advance warning areas of your work zones to slow down the traffic.

For more information about speed trailers, contact Tom McDonald,

safety circuit rider, 515-294-6384, tmcdonal@iastate.edu. •

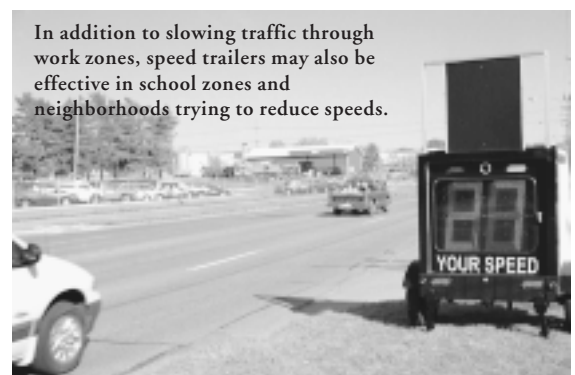


Photo courtesy of the Iowa Department of Transportation.

## Iowa's SMS: background

In 1991, the federal Intermodal Surface Transportation Efficiency Act (ISTEA) mandated that each state develop a safety management plan by October 1994 to address surface modes of transportation. By 1995, representatives from a variety of agencies and organizations across Iowa formed the Iowa Safety Management System (SMS) Coordination Committee to begin developing the Iowa SMS. In 1997, the federal mandate was withdrawn, but Iowa has continued its SMS initiative. •

## The Iowa Strategic Highway Safety Plan: an update

ONE OF THE most important components of the Iowa Safety Management System (SMS) (see sidebar) has been the development of a strategic highway safety plan. Representatives from over 20 different agencies and organizations in Iowa have come together to develop a plan that identifies specific highway safety issues, provides collaborative, multidisciplinary strategies for resolving the issues, and evolves as new information and ideas are available. The Iowa Strategic Highway Safety Plan is conceived as a central source of highway safety information, and it is on the road to quickly becoming just that.

### Multidisciplinary approach: the 4E's

The Iowa SMS Coordination Committee believes that a comprehensive, integrated approach is needed to most effectively reduce the number and severity of crashes on Iowa's roadways. Thus, it was important for the Iowa Strategic Highway Safety Plan to be a collaboration between various branches of local, state, and federal government, private industry, and the general public. This multidisciplinary approach is illustrated by the concept of "4E's": engineering, enforcement, education, and emergency response. Each of these components is represented in the plan.

### Toolbox of strategies

Iowa's plan contains 25 emphasis areas, with a list of strategies (or "tools") for each. The emphasis areas are organized into five main categories:

1. drivers
2. special users
3. highways
4. emergency response
5. management

Task forces and projects have also been established around many specific safety issues (for example, the Red Light Running Task Force and the Older Drivers Task Force).

Iowa SMS continues to be proactive in seeking more ideas and responses to this "toolbox" of potential highway safety solutions. This ongoing input will be considered in shaping the strategies.

### The plan will continue to grow and evolve

The Iowa Strategic Highway Safety Plan is intended to be a "living document," one that continually

undergoes change and growth. As such, the draft of the plan, completed in August 1999, was distributed to over 700 entities and individuals involved in transportation safety in Iowa, and public response has been promoted through media coverage (a PDF file of the draft plan is available at [www.state.ia.us/government/dot/safetyplan](http://www.state.ia.us/government/dot/safetyplan)).

Other methods for facilitating ongoing input and evolution to the plan's toolbox of solutions include the following:

- A public opinion survey was conducted by the University of Northern Iowa on behalf of Iowa SMS to help assess Iowans' highway safety priorities and their opinion of the proposed strategies. The results of the survey will soon be released, and the conclusions drawn in the report will be integrated into the plan.
- SMS members continue to visit with a variety of important focus groups, including law enforcement personnel, older drivers, and youth.
- Iowa SMS has partnered with the Federal Highway Administration to host a multistate peer exchange opportunity for highway safety professionals to discuss multidisciplinary ways of addressing traffic safety concerns (Council Bluffs, October 31–November 1). The discussion will be focused on gaining buy-in, funding, implementing strategies, and managing and measuring initiatives.

### A central source

Through ongoing multidisciplinary collaboration, feedback, and consideration of proposals, the Iowa Strategic Highway Safety Plan is well on its way to achieving the goal of being the central source for highway safety discussion and strategy development in Iowa.

For more information, contact Mary Stahlhut, SMS coordinator, 515-239-1169, [mary.stahlhut@dot.state.ia.us](mailto:mary.stahlhut@dot.state.ia.us), or Tom Welch, chair of the Iowa SMS Coordination Committee, 515-239-1267, [thomas.welch@dot.state.ia.us](mailto:thomas.welch@dot.state.ia.us). •