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MoGO inspection

This article is part of a continuing series of tips for motor grader operators.



A 45–60 MINUTE PREINSPECTION of the motor grader should be part of an operator's daily routine, says Vince Olson, a Story County motor grader operator with 15 years experience.

Olson currently operates a Gallion 850 motor grader, which Story County purchased a few months ago. Even though Olson's motor grader is new, Maintenance Superintendent Jeff Biddle says they "expect to experience some problems on new machines."

Olson discovered a small problem with the front wheel drive during the big snowstorm in early February. Gallion's service person does a good job of helping to correct problems, Biddle says.

The newer motor graders require major service less frequently. Olson's Gallion needs it every 250 hours compared to every 100–125 hours on some older machines. ■



Olson begins his preinspection on the right side of the motor grader, walking around the front, down the left side, and around the back so he finishes his inspection by turning on the power. He looks for leaks that would indicate loose seals or fittings.

Olson eyeballs the tires to see if they're low. Since Story County motor grader operators drive the same machines, operators get to know how their machines' tires look. Olson recommends adding fenders because they save the windshield from flying debris.



A service map next to the Gallion's cab indicates how often parts need to be greased between service checks. Some parts need greasing every day.

MoGO . . . continued on page 2

Crossroads 2000

Plan to attend the Crossroads 2000 research conference August 19–20, 1998. See page 11 for more information.

The 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.

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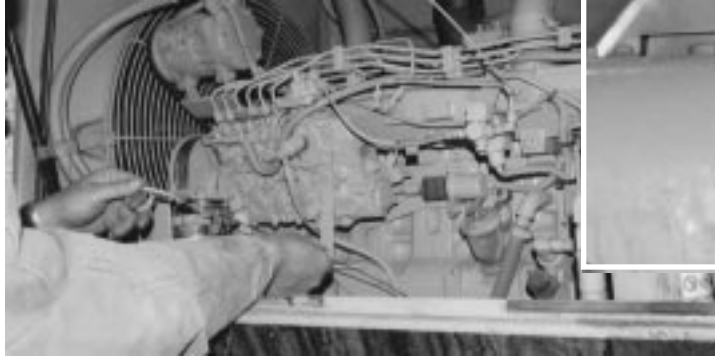
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nameplate was designed by
Jennifer Reed.



MoGO . . . continued from page 1

Here Olson checks the antifreeze, oil, and transmission fluid and looks for puddles on the floor.



Olson believes this oil leak at the rear of the motor grader is a blow-by leak caused by an air filter problem. The Gallion service person fixed it shortly after this photo was taken.

Once Olson checks the batteries, he's completed his walk-around inspection and turns on the power.



Olson makes sure the warning lights in the cab are functioning. He also checks the exterior lights.

WWW sites for counties



THINKING OF developing a web site?
Check out the following sites:

<http://www.wayneroads.com/>
Wayne County, Michigan

<http://www.rad.co.san-diego.ca.us/cnty/cntydepts/landuse/works/index.html>
San Diego County, California

<http://www.kcrc-roads.com/>
Kalamazoo County Road Commission, Michigan

<http://www.co.polk.ia.us/>
Polk County, Iowa

<http://www.naco.org/affils/nace/index.htm>
National Association of County Engineers

Implementing the golden rule of personnel management

Alan Estvold, Montgomery County Engineer

This is the second article in a three-part series on personnel management.



THE BIBLICAL GOLDEN RULE—“Do unto others as you would have them do unto you”—was the underlying management philosophy of James F. Lincoln of the Lincoln Electric Company, maker of the Lincoln welder. Lincoln’s management style inspired tremendous loyalty among his employees in the early years of this century.

I have suggested a modern golden rule of personnel management: Manage people as *they* would like to be managed. This rule doesn’t require any special training or technique, just common sense and sincere effort. If managers take this philosophy seriously, however, they can become good or even great managers.

This sounds oversimplified, but managing by the golden rule isn’t as easy as it sounds. Good managers are not born; they work hard at it. The golden rule of personnel management requires managers to be attentive to employees, to get to know their personality traits, and to be compassionate. It requires a manager to be vigilant about production and quality while treating employees with respect, even if respect is not reciprocated.

The result of this managerial style is generally happier, more satisfied, and more motivated employees. Motivated employees are productive employees.

But it is not a manager’s job to motivate employees. The key to motivation lies within the employees themselves, with their own sense of self-esteem and satisfaction. Self-motivation is the only lasting kind of motivation.

It *is* the manager’s job to promote and nourish the inherent drive within employees to do a good job. For some employees, this means giving them more responsibility and authority over how they perform their jobs. Other employees need and appreciate more direction and control. Every employee needs to be acknowledged for a job well done. A good manager gets to know his or her employees well enough to understand how to encourage their inherent motivation. Unfortunately, a manager who

makes no effort to understand his employees’ work styles can make the most motivated employees lose their desire to do a good job.

The golden rule certainly does not advocate a laissez faire style, one that is sloppy, hands off, uncaring, or careless about production and quality. Nor does it mean a manager should overlook problems with employees’ behavior, production, or work quality. The final article in this series will discuss applying the golden rule of management to employee discipline. ■■

Alan Estvold is a professional engineer and land surveyor. He has a bachelor of science degree in civil engineering from North Dakota State University and a master of arts degree in management from Bellevue University.

Be flexible

FLEXIBILITY IN HIGHWAY DESIGN, a new book published by the Federal Highway Administration (FHWA), discusses the design process, design guidelines, and case studies demonstrating flexible design.

The design process should include a planning phase that requires active public involvement, not just commentary on developed designs. Design guidelines should go beyond the AASHTO *Green Book*, which is not a design manual, to include problem definition, project definition, aesthetic treatment, context of the design, etc.

The six case studies describe improvements and reconstruction in California, Maryland, New York, and Oregon. Each case study has sections explaining actions that were taken to resolve environmental and design issues as well as lessons learned from the project.

The LTAP library has several copies of this publication. Contact Stan Ring, library coordinator, 515-294-9481, stan@ctre.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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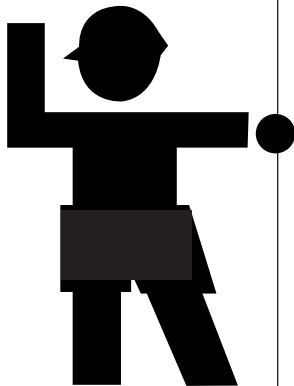
Iowa Department of Transportation



Center for Transportation Research and Education

IOWA STATE UNIVERSITY

.....
**safety
short**



Look of the future in work zones

Tom McDonald, CTRE's Safety Circuit Rider

THE RECENT INTRODUCTION of a bright, yellow-green color in traffic signs and worker apparel has potential for significant success in traffic safety. Recent flagger workshops and local programs have generated interest in the color when the new worker caps and vests were displayed.

In recognition of the color's potential benefits, notably its improved visibility and enhanced recognition, the Iowa Department of Transportation may require all of its maintenance flaggers to wear strong yellow-green apparel. Also, Iowa DOT workers would be required to wear this apparel when working at night in roadways. Daytime use by other workers would be optional. Reactions from the Iowa DOT staff and a public opinion survey conducted at the Iowa State Fair have all been quite favorable.

This may be an advance in technology that could benefit your local worker safety efforts. Costs are approximately \$8/each for the caps and about \$28/each for a vest or pants. One vendor is currently supplying this new apparel and others are also considering carrying the new color.

If you have questions about ordering some of these safety items for your staff, contact Tom McDonald at CTRE, 515-294-6384. ==

New resource for work zone safety information



MORE THAN 700 PEOPLE are killed and 5,000 injured each year in accidents that occur in road construction sites across the nation. In February 1998, a major project was launched to address this serious highway safety concern: The National Highway Work Zone Safety Information Clearinghouse.

This first-of-its-kind facility will provide transportation agencies, law enforcement departments, highway designers and contractors, labor unions, insurance companies, motor clubs, and other interested parties with a wealth of information on making road construction zones safer. The clearinghouse provides an array of "best practice" information including work zone design, research reports, information on mounting public awareness and law enforcement campaigns, as well as data on safety consultants, products and training courses. In most cases, information is provided at no charge.

To communicate with the clearinghouse, call toll free 888-447-5556; fax 409-845-0568; or e-mail workzone@tamu.edu. The clearinghouse is on the World Wide Web, <http://wzsafety.tamu.edu>.

The clearinghouse is a cooperative venture between the Federal Highway Administration and the American Road & Transportation Builders Association. The Texas Transportation Institute in College Station, Texas, houses the facility and handles its day-to-day operations. ==

.....
**tip from
the field**



Traction trick

THE CITY OF CLIVE Public Works Department has developed a method for the finish work on handicapped sidewalk drops that may increase the traction of these and other types of ramps. First, the curbs are ground off rather than removed with a concrete saw. Then a modified concrete trowel is used to mark the new poured concrete. The trowel has five one-half-inch angle iron pieces welded into it to create the pattern.

For more information contact Willard Wray, Clive director of public works, 515-223-6230. ==



Three safety proponents retire

The retirements of three men with over 60 years combined safety experience and who have worked with local transportation agencies over the years will be sorely felt.

Jack Latterell

During his tenure with the Ames Federal Highway Administration (FHWA) office, Latterell has worked with innumerable local, state and federal representatives in highway safety. Among his job's challenges, he says, is connecting the development of a transportation project with its results by "showing engineers how their responsibilities have a life-and-death impact. It's a constant training effort."

"Jack is very concerned about safety at the local level, and seeing that safety programs are taken to that level," says Duane Smith, CTRE's associate director for outreach.

Latterell also has watched how safety must continually resituate itself in response to public and political concerns. He cites the collaboration among multidisciplinary interests as a promising approach to the safety effort. "I've seen so much good come from this method," he says. "It's very effective in drawing people together, such as in Safety Management Systems and the Governor's Highway Traffic Safety Conference."

Fred Walker

After serving on committees, working on projects, and generally promoting the issue of transportation

safety, Fred Walker will be retiring as Director of the Iowa DOT's Office of Transportation Safety this May.

Walker's devotion to safety management becomes apparent as he discusses his many responsibilities. Among them is the Safety Management Systems Coordinating Committee, a multidisciplinary group of representatives from the traffic field.

"This group is a real step forward," Walker says. "We're working with the enforcement, education, and emergency medical communities to promote an atmosphere of the Three C's—coordination, cooperation and communication."

Dwight Stevens

This May Dwight Stevens will be retiring from his position as the Iowa DOT's Director of the Office of Traffic Engineering. Stevens has contributed his efforts to many projects and committees, among them the Safety Management System Task Force on Speed Limits and the Transportation Research Board's Traffic Control Devices Committee.

"Dwight's got a great deal of experience and his shoes will be tough to fill," says the Iowa DOT's Tim Crouch. "Dwight is the traffic engineering expert here and his advice is sought out on every issue in this field."

Adds Crouch, "I've enjoyed working with Dwight. He'll be sorely missed. Answers will become much slower to find, since Dwight has the experience and knowledge to provide them right away. Those of us left behind will have to take the time to research and find the answer." ■



Latterell says safety efforts are an "investment. I assure everyone who works in safety that in the long run their return will be multifold."



Transportation safety has long held Walker's interest because of "the challenge of seeing improvement, such as making inroads into crash rates. The priority list never ends." Added to the challenge is the satisfaction "to go back and see how we've made a difference."



By working in traffic and safety, Stevens says, "We're involved in important things that are visible out on the road."

Standard construction details on CD

THE CITY OF COUNCIL BLUFFS has put its 1998 standard details for pavement and sewer construction on a compact disk (CD). The construction details are in Autocad format. Contractors may find this a useful resource for incorporating construction details into a particular project.

Details include several for street patching; joints; curbs, sidewalks, and driveways; subdrains; man-

holes; storm sewer curbs; area inlets; pipe bedding; and other miscellaneous sewer details.

Council Bluffs has given a copy of the CD to CTRE's LTAP library. To borrow the CD, contact Stan Ring, library coordinator, 515-294-9481; stan@ctre.iastate.edu. If you are interested in having your own copy, contact Georgia Parham, 515-294-8103; georgia@ctre.iastate.edu. The price will include the cost of copying the CD plus postage. ■

FieldBook becoming widespread

Affordable FieldBook

CITIES AND COUNTIES with federal-aid street or bridge projects in the Short-Range Transportation Improvement Program (STIP) can use federal funding to purchase a laptop computer and FieldBook software. For more information contact Larry Jesse at the Office of Local Systems, Iowa DOT, 515-239-1256.

Recently trained on electronic FieldBook, Scott Durlin of Story County anticipates using it on a real project this year.



AS THE IOWA DEPARTMENT of Transportation (Iowa DOT) changes from its automated contractor payment system to FieldBook software, counties letting projects through the Iowa DOT will need to make the switch, too. One reason for the switch is that the Iowa DOT's current system isn't year 2000 compliant.

FieldBook is a computer program used to record construction progress information and then to upload it to the Iowa Department of Transportation's computer system.

Since June 1996 when FieldBook was first described in *Technology News*, employees from more than 85 Iowa county engineers' offices have been trained on FieldBook. The majority of Iowa counties will be testing the new system this summer while concurrently using standard manual record keeping procedures on their federally funded projects.

Marshall County Assistant Engineer Wayne Chizek says five or six counties have volunteered to go online with a live project. That means they will use the electronic FieldBook as the project's primary documentation and will upload data semi-monthly as they submit their payment vouchers electronically to the Iowa DOT via modem.

The new system is "getting to be pretty handy," Chizek says. Inspectors may not save lots of time on the initial data entry, but the system prints several reports that previously were done manually (and they can be spellchecked). Data analysis and accessibility will be advantages in the long run, Chizek says.

Chizek adds that FieldBook is actually being used now. Marshall County is wrapping up its testing of FieldBook for the Iowa DOT. The county will stop keeping manual records on its federally funded projects this year.

The lead engineering technician in the Story County engineer's office, Scott Durlin, was recently trained on FieldBook. Durlin says using FieldBook will

change his work habits somewhat. He often visits several construction sites in one day and jots down notes, which he records the next day. With FieldBook he'll have to input the data at the end of every day. Daily input is required so entries can't be changed at the end of a project, and so vendors can be paid promptly.

Durlin anticipates a bit of a learning curve with FieldBook. He says Story County will try it on a basic project first. The county "won't make a complete switch right away," Durlin says.

Chizek believes there will be benefits to FieldBook and its successor FieldManager (due in 1999) that haven't been realized yet. "It's going to be worth it," he says.

For more information about FieldBook, contact Wayne Chizek, 515-754-6343. ■■

SHRP case studies

THROUGH A COLLECTION of 104 case studies and a video, the Strategic Highway Research Program (SHRP) shows how its products have been used at the city, county, and state levels across the country. Each one-page case study explains a specific problem and how a SHRP product helped solve it.

For example, one case study describes the Iowa Department of Transportation's (Iowa DOT) participation in a SHRP test of anti-icing techniques. The Iowa DOT applied a sodium chloride brine to roadways before snow fell. The benefits were improved safety, less time spent clearing roads, and fewer chemicals needed.

Case studies in 45 states cover a range of SHRP products, including Superpave, the long-term pavement performance program, snow and ice control, work zone safety, concrete and structures, and pavement preservation. Each study lists contact information for local people who were involved in each project.

To borrow this case study and video package called *Road Savers*, contact Stan Ring, library coordinator, 515-294-9481, stan@ctre.iastate.edu. ■■



Save purchasing \$



CITY AND COUNTY TRANSPORTATION agencies may save money on equipment and supplies by purchasing some items through the Iowa Department of Transportation (Iowa DOT). Surplus equipment is available through the Office of Equipment Support. Some bulk items, like rock salt and fuel, and supplies inventoried by the Iowa DOT can be purchased through the Office of Procurement and Distribution.

Surplus equipment

“When surplus equipment is available, any municipality can buy it at any time,” says Dave May of the Iowa DOT’s Office of Procurement and Distribution. For a current list of available equipment, call Mike Holl, 515-239-1576.

Agencies can also call Holl to get on a waiting list for specific equipment; he’ll contact them as soon as the item is available.

Surplus equipment is regularly sold at public auction. For dates of upcoming auctions, a list of items to be auctioned at the next event, and typical prices to local governments, see the Iowa DOT’s World Wide Web site: <http://www.state.ia.us/government/dot/dotauct.htm>.

Bulk purchases

The Iowa DOT regularly purchases items in bulk, and local agencies can piggyback their orders on the Iowa DOT’s for greater price breaks. Typical bulk purchases include fuel, rock salt, traffic paint, stakes, posts, and truck blades. Fuel and rock salt are not inventoried at the central office but are delivered directly to the purchasing agency.

Watch for fliers from the Iowa DOT soliciting local agency bulk orders. For more information contact Tom Currier, 515-239-1047.

Iowa DOT inventoried goods

For a catalog of supplies inventoried at the Iowa DOT, contact Tom Currier, 515-239-1047. You can order items by calling Currier, sending a fax to 515-239-1983, or mailing your order to the Iowa DOT Distribution Center, 800 Lincoln Way, Ames, Iowa 50010. ■■

Instant info from lowAccess

IMAGINE LOGGING ON to the Internet and filling out a single form to apply for all the federal and state business licenses you need to start your own company.

Imagine using a kiosk at your local grocery store to access information on private and government housing programs available to first-time home buyers.

Imagine never again waiting in long lines at the courthouse only to find you need to contact a state agency for the information you want.

With the implementation of lowAccess, these scenarios will become reality by July 1998. lowAccess is an innovative, cooperative effort of local, state, and federal governments, the private sector, and Iowa citizens to make accessing government information, applying for permits, and submitting required information easier.

Fourteen technology projects ranging from electronic environmental permitting to an online local government budget and tax information system are currently being implemented through the lowAccess effort.

Project 8, Geographic Information Systems (GIS) Support, may be useful to local transportation agencies. It will establish an ongoing infrastructure for geospatial information coordination and will provide, among other services, a clearinghouse for geospatial data and metadata.

The state of Iowa, federal government, and Iowa’s local governments take a unique approach to implementing lowAccess through the input and guidance of a citizen council and a steering committee. The citizen council is comprised of Iowa citizens and is responsible for ensuring that project applications are easy to access and use, while also maintaining the privacy of the public. The steering committee oversees and provides input to project teams, reviews project design, and identifies and resolves barriers to project implementation.

lowAccess funding is provided to Iowa by the U.S. General Services Administration.

Citizens can contact lowAccess staff through its e-mail address, iowaccess@max.state.ia.us, or by calling Amy Campbell, State Public Policy Group, 515-243-2000. ■■

The lowAccess article is adapted from an article that originally appeared in the February 1998 issue of Coordinated GIS, a newsletter published by the Iowa Geographic Information Council.

More info on lowAccess

The lowAccess effort offers up-to-date information on the implementation of all 14 projects through its Internet Web page, <http://www.state.ia.us/iowaccess/index.htm>.

Intelligent transportation systems: an overview

“ISTEA’s Intelligent Vehicle-Highway Systems (IVHS) program (now the ITS program) signaled what was perhaps the most significant federal transportation initiative since the interstate program.”

This is the first in a series of articles on intelligent transportation systems.

Background

THIS HAS BEEN THE CENTURY for building roads. Since mechanized vehicles first hit the trail, highway agencies been laying pavement to accommodate them. As we approach the next century, budget, space, and environmental constraints are limiting the number of new lane miles. The focus has shifted to increasing the capacity and safety of existing roadways.

One way to do this is to exploit the power of technology, particularly the robust communications and information systems technologies developed in the last two decades. Intelligent transportation systems (ITS) is a generic name for systems of technologies used to help people and goods travel more reliably, productively, and safely. ITS is a tool that supplements and enhances conventional transportation improvements like widening highways or adding more traffic lanes.

Researchers have experimented with ITS applications for several years, but early efforts were generally isolated from other ITS research in the country. With the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, the federal government committed significant funds to jumpstart ITS research, testing, and deployment; set priorities; and develop national standards to prevent fragmented implementation of ITS. ISTEA’s

Intelligent Vehicle-Highway Systems (IVHS) program (now the ITS program) signaled what was perhaps the most significant federal transportation initiative since the interstate program.

National ITS efforts, many coordinated through the U.S. Department of Transportation’s Office of Joint Programs, include ITS programs for traffic and travel management, rural applications, public transit, commercial vehicle operations, “smart” vehicles, automated highways, standards development, intermodal services, and a national ITS architecture. Many of these efforts are moving beyond research and development to full deployment.

Conceptualizing ITS

Central to ITS is the concept of providing transportation services that (1) increase mobility and (2) reduce transportation costs. More than simply saving money, reducing costs means making transportation safer, more environmentally friendly, and less congested.

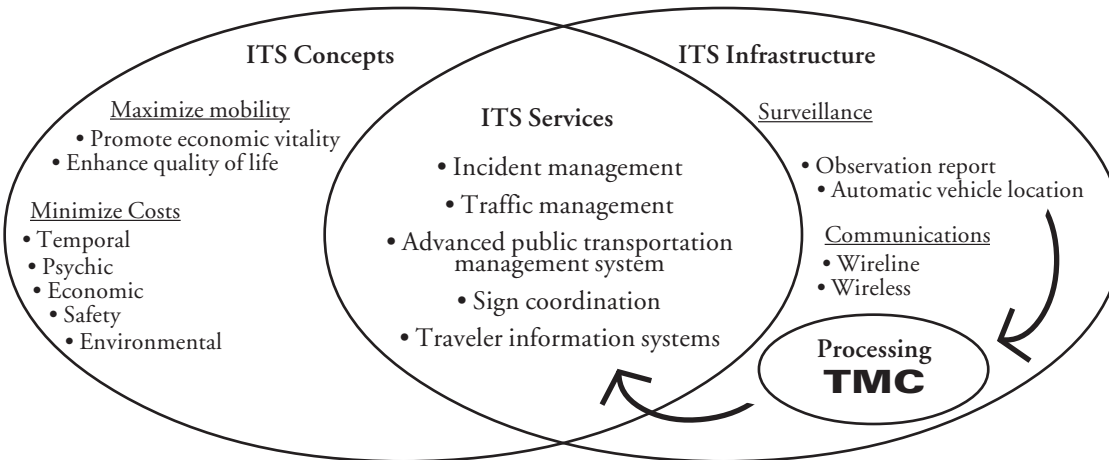
Specific ITS services can make these concepts real. Examples of ITS services that might be implemented in an urban setting include the following:

Incident management systems, to more quickly detect and clear incidents through electronic and video detection and information gathering, communication with responding organizations, and management

Traffic management, to monitor traffic flow in real time and then respond to developing conditions by managing traffic control systems and providing travelers with information via changeable message signs and other devices

Advanced public transportation management, to automatically monitor transit operations, automate functions like collecting fares, and dynamically route and schedule services in real time

Traffic signal coordination, to adjust signals in real time according to traffic flow conditions and coordinate signals across jurisdictions



ITS infrastructure collects information about the transportation system and communicates it to the TMC, where it is processed and decisions are made to initiate appropriate services. The ultimate goals are to improve mobility and reduce costs.

Traveler information systems, to provide real-time information to travelers about roadway conditions, weather, construction, and congestion so they can make more informed decisions about routes and mode of travel

ITS technologies or infrastructure to support the above services generally include the following:

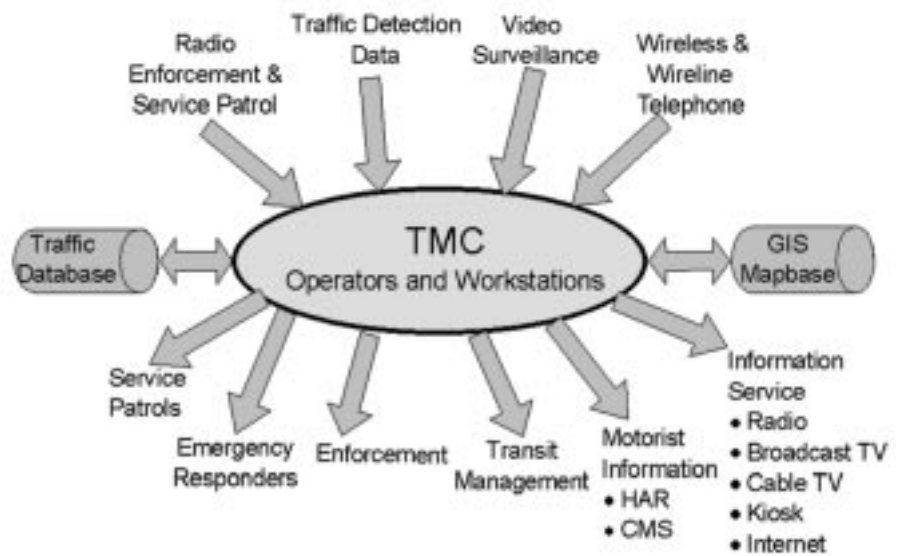
- computers
- electronic data gathering devices (e.g., traffic detectors, pavement temperature sensors, video cameras, automatic vehicle location systems using GIS and GPS)
- electronic communications (e.g., fiber optic cable networks, telephone lines, wireless communications)
- electronic information distribution mechanisms (e.g., roadside variable message signs, the Internet, cable TV, highway advisory radio)

The infrastructure may support several ITS services over a wide geographic area. Services may be provided by several jurisdictions (e.g., counties and cities) via several lines of authority (e.g., highway patrol, public transit, highway maintenance agencies). In these cases the jurisdictions and agencies involved usually need a central “command center” or transportation management center (TMC).

The TMC is a physical space consisting of workstations and operators that collect and process information via the surveillance and communications infrastructure. By fusing data across jurisdictions and lines of authority at the TMC, the resulting information becomes richer, more complete and meaningful regarding the entire transportation system.

The TMC collects and processes information about the transportation system and initiates strategies for managing the system. Many of these strategies focus on delivering services that allow travelers to make more informed travel decisions.

For example, the TMC may receive information about a traffic accident via a video camera or other surveillance equipment. The TMC may then simultaneously route emergency services and the highway patrol to the scene while initiating warning messages to approaching motorists via message signs and radio.



What's happening in Iowa

Although Iowa does not have to contend with the congestion headaches faced by some of the country's large metropolitan areas, Iowa travelers and shippers are benefiting and will benefit from ITS being deployed or planned in the state. For example, Iowa is a leader in the development of roadway weather information systems (RWIS). The Iowa DOT was recently selected to lead a national ITS test of roadway weather forecasting (the FORTEL project). ITS is also being deployed in Iowa to automate data collection and operations of highway maintenance trucks (see “Snow plowing goes high tech” in the August–September issue of *Technology News*); automate truck safety enforcement; and route, schedule, and locate public transit vehicles.

The Des Moines area metropolitan planning organization recently adopted an ITS strategic plan that recommends several ITS applications to help manage congestion during and after I-235 reconstruction, improve safety on the Des Moines area's freeways and arterial streets, and help transit move more efficiently. The Iowa DOT is currently working on a plan to develop a similar strategic plan for the entire state. Both of these efforts will be highlighted in future issues of *Technology News*.

More information

General definitions and information about ITS in the United States can be found at the following World Wide Web sites:

<http://www.its.dot.gov/>

<http://www.itsa.org/>

Concrete quality now easier to monitor

Charles T. Jahren, Assistant Professor of Construction Engineering, Iowa State University



THE IOWA DEPARTMENT of Transportation (Iowa DOT) has recently implemented a streamlined system for monitoring quality for asphalt cement concrete paving, portland cement concrete (PCC) paving, and PCC structures construction projects. The computerized system replaces a series of paper forms that were filled out manually. It speeds information to those who need it and eliminates unnecessary data collection.

On federal-aid projects, "the Iowa DOT materials engineer's staff has considerable expertise on plant quality issues," says Charles T. Jahren, assistant professor of construction engineering at ISU and head of the research team. The sooner the materials engineer can review each day's production records, the sooner he or she can verify that the plant is producing concrete according to specifications or identify and correct quality problems.

Under the new system, quality control personnel at the concrete plant input production information into special Lotus spreadsheets and fax resulting reports daily to the materials engineer at the Iowa DOT transportation center. (It will be possible to transfer this information electronically in the future.)

This system has reduced the information loop from a week to a day.

The Lotus spreadsheets were programmed by Dan Steenhard, Iowa DOT construction technician at New Hampton.

Local transportation agencies will be required to use the new system for federal-aid projects inspected according to Iowa DOT procedures. Spreadsheets for the 1998 construction season are free to local agencies (you will need to own Lotus software). Contact the senior engineering technician for local systems at your regional Iowa DOT transportation center. ■■

Proposed changes to MUTCD



THE FEDERAL HIGHWAY ADMINISTRATION is updating the Manual on Uniform Traffic Control Devices (MUTCD).

MUTCD 2000 is scheduled to be published in September 2000 in sets of four bound booklets, which will be distributed in three-ring binders. MUTCD 2000 will be the first complete revision of the manual since 1988.

Proposed revisions for the following sections have been published in the *Federal Register*:

1/6/97 Part III—Markings

Part IV—Highway Traffic Signals

Part VIII—Traffic Control Systems for Railroad/Roadway Grade Crossings

12/5/97 Part I—General Provisions

Part VII—Traffic Controls for School Areas

In May and August 1998, proposed revisions will be published regarding the rest of the manual.

You are encouraged to participate in the updating process by reviewing and commenting on proposed changes. One easy way to do this is to view the proposals on the World Wide Web: <http://ohs.fhwa.dot.gov/devices/>.

Send your comments on proposed revisions to

FHWA Docket 96-47
Federal Highway Administration
Room 4232, HCC-10
400 Seventh Street S.W.
Washington, DC 20590. ■■

April 1998

- 26-30 National Association of County Engineers
29 Flagger Workshop

May 1998

- 7-8 Iowa Access Management Conference
11-12 Iowa Summer Maintenance Expo
14 Spring ITCSA Conference
19-20 Flagger Workshop

July 1998

- 15 Iowa County Engineers Mid-Year Conference

August 1998

- 19-20 Crossroads 2000 Conference

Location	Contact
Rapid City, South Dakota	Raymond Roggow 605-775-2677
Cedar Rapids	Tom McDonald 515-294-6384
Ames	Dave Plazak 515-296-0814
Des Moines	Duane Smith 515-294-8103
Ames	Tom McDonald 515-294-6384
Pocahontas	Tom McDonald 515-294-6384
Ames	Duane Smith 515-294-8103
Ames	Tom Maze 515-294-8103

Research conference coming to Iowa

August 19-20, 1998
Iowa State University
Ames, Iowa

CROSSROADS 2000, Iowa's second biennial transportation research conference, will provide an opportunity for midwestern transportation professionals who may not regularly attend national events like the annual Transportation Research Board to attend a high-level research conference. Researchers from around the country will present. The conference is sponsored by CTRE and the Iowa Department of Transportation.

The conference will cover a broad spectrum of transportation issues, ranging from infrastructure design to transportation policy. An emphasis this year will be on intelligent transportation systems (ITS) and their applications. Participants will find sessions on both basic and applied research.

Registration brochures will be mailed in June.

For more information, contact Tom Maze, 515-294-8103, tom@ctre.iastate.edu.

NACE in Rapid City

April 26-30, 1998
Rapid City, South Dakota

THE NATIONAL ASSOCIATION of County Engineers annual conference will include technical sessions for rural and urban counties, vendor displays, the annual business meeting, and a banquet to induct new officers. For more information contact Raymond Roggow, conference chair, 605-775-2677.

Expo focuses on summer maintenance

May 11-12, 1998
Polk County Convention Center
Des Moines, Iowa

AT IOWA'S SUMMER MAINTENANCE expo, local and national experts will share their knowledge about repairing bridge decks, using herbicides, managing vegetation, using appropriate traffic control techniques, identifying distress in PC and AC pavements, and other topics. Each participant will choose educational sessions from 24 options.

For a registration brochure contact CTRE, 515-294-8103; georgia@ctre.iastate.edu.



Learn about highway access

May 7-8, 1998
Gateway Holiday Inn
Ames, Iowa

THERE'S STILL TIME to register for Iowa's first conference on access management, May 7-8, 1998, at the Gateway Holiday Inn, Ames, Iowa. The conference will present results from an access management study in Iowa and offer sessions emphasizing the impacts and benefits of access management, best practices in access management, and marketing strategies and public involvement.

For registration information, contact CTRE, 515-294-8103; plazak@ctre.iastate.edu.

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Fax this page to Marcia Brink at CTRE, 515-294-0467 or send e-mail, marcia@ctre.iastate.edu.

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