

The Bridge

Linking Transportation Research and Practice



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Granholm Lauds Traffic Safety Milestones

Michigan Now Ranks No. 2 in Safety Belt Use

Lansing, January 30, 2007
Contact: Anne Readett

Governor Jennifer M. Granholm today praised Michigan’s accomplishments in traffic safety following the recent release of state-by-state safety belt use by the National Highway Traffic Safety Administration. The report ranks Michigan’s new 94.3 percent safety belt use rate as second only to Washington, which recorded a usage rate of 96.3 percent.

Michigan has experienced five consecutive years of increasing safety belt use. During that same time period, the number of traffic fatalities, injuries and crashes steadily decreased. In fact, in 2005, the state reached the lowest traffic fatality level since 1945, and the lowest number of traffic-related injuries since 1959.

“Thanks to significant strides in reducing deaths on our roadways, Michigan continues to set the standard for traffic safety nationwide,” said Colonel Peter C. Munoz, director of the Michigan State Police. “These results are even more impressive when you consider that more vehicles travel more miles each and every year.”

The official safety belt use rate of 94.3 percent, the highest ever recorded in Michigan, was derived by trained observers from the Wayne State University Transportation Research Group who conducted an end-of-summer direct observation survey at various locations throughout the state. The results reveal Michigan’s belt use rate rose slightly from 94 percent in May 2006.



“These positive results represent a true team effort that involved local police agencies, sheriff offices and Michigan State Police as well as a host of other traffic safety partners across the state,” said Michael L. Prince, OHSP Division Director.

Michigan experienced its first significant increase in safety belt use in 2000 when the state’s primary enforcement law took effect. Belt use went from 70 percent with a secondary enforcement law to 83.5 percent that year. Safety belt use in Michigan first climbed above 90 percent in 2003, reaching 90.5 percent. In 2005, belt use jumped again, reaching 92.9 percent.

For every 1 percent increase in safety belt use, an estimated 10 traffic deaths and 130 serious injuries are prevented annually.

Currently, only 10 states and Puerto Rico have belt use rates above 90 percent, with rates varying across the country from as low as 63.5 percent in New Hampshire and Wyoming to a high of 96.3 in Washington. The national use rate stands at 81 percent.

To help maintain Michigan’s success, the Governor’s Traffic Safety Advisory Commission (GTSAC) developed a comprehensive, long-range plan designed to guide future traffic safety endeavors. The State of Michigan Strategic Highway Safety Plan identified twelve areas of emphasis such as motorcycle safety, intersection safety and senior mobility and safety.

The complete GTSAC plan is available on the Michigan Office of Highway Safety Planning (OHSP) Web site at <http://www.MichiganLTAP.org/Bridge/21_1/>.

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Did you see page 1? Congratulations to all of us who regularly wear our seat belts! Not only did we put Michigan in second place for seat belt compliance rates, but we're saving a lot of lives too. According to National Highway Traffic Safety Administration (NHTSA) data, your risk of dying in a crash is reduced FORTY-FIVE percent when you wear your safety belt and your risk of serious injury is reduced over SEVENTY percent when wearing a safety belt in a serious crash. The only question remaining is, why doesn't EVERYBODY wear a safety belt in Michigan?

Another area where everyone can work to make Michigan a leader is in our relationship with the environment. On pages 4 and 5 you'll find an article on good-housekeeping practices for your facility. You'll learn that the mess you make may mean more than an unattractive facility. You can pull out those pages and pin them to the bulletin board to get the word out about the problems a messy facility creates. Without much effort, we can make Michigan a leader in environmental stewardship AND safety.

On pages 6 and 7 you'll learn about Michigan's Construction Career Days, a new initiative by Michigan LTAP, MDOT, FHWA and other transportation leaders of Michigan to get young people interested in the fields many of us work in. If this initiative sounds interesting to you or some young people you know, be sure to contact John Ryyanen in our office to find out more or to learn how you can participate.

As always, we're looking for input from you so that we can respond to your needs with this publication and all our services, so don't hesitate to contact us with ideas, criticism, kudos, or content.

— John

The Bridge

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LTAP Steering Committee

The Local Technical Assistance Program (LTAP) is a nationwide effort financed by the Federal Highway Administration and individual state departments of transportation. It intends to bridge the gap between research and practice by translating the latest state-of-the-art technology in roads, bridges, and public transportation into terms understood by local and county highway or transportation personnel.

The LTAP Steering Committee makes recommendations on, and evaluations of, the activities of the Local Technical Assistance Program based on discussions at the Technology Transfer Interchange and Advisory Committee meeting. This meeting is held annually and is open to all rural and urban agencies, and individuals concerned with the transfer of transportation technology in Michigan.

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Publications Available from the LTAP Library

ITS Applications for Coordinating and Improving Human Services Transportation

A CROSS-CUTTING STUDY



Improving Service for the Transportation Disadvantaged

August 2006

ITS Applications for Coordinating and Improving Human Services Transportation

This is one in a series of products designed to help you provide ITS solutions that meet your local and regional transportation needs. The FHWA developed a variety of formats to communicate with people at various levels within your organization and among your community stakeholders:

- Benefits brochures explaining how specific ITS technologies have benefited their areas.
- Cross-cutting studies examining ITS approaches for meeting community goals.
- Case studies of specific approaches used by communities across the US.
- Implementation guides serving as “how to” manuals to assist in the technical details of implementing ITS.

Available for giveaway from LTAP or download at

<http://www.MichiganLTAP.org/Bridge/21_1/>

How to Develop a Pedestrian Safety Action Plan



Federal Highway Administration
FHWA 54 05 12
February 2006



How to Develop a Pedestrian Safety Action Plan

This guide presents an overview and framework for state and local agencies to develop and implement a Pedestrian Safety Action Plan. Community stakeholders develop Pedestrian Safety Action Plan to improve pedestrian safety. This guide helps state and local officials know where to begin to address pedestrian safety issues, and assists agencies in further enhancing their existing pedestrian safety programs and activities, including identifying safety problems and selecting optimal solutions. This guide also serves as a reference for improving pedestrian safety through street redesign and the use of engineering countermeasures as well as other safety-related treatments and programs. This guide can be used by engineers, planners, traffic safety and enforcement professionals, public health and injury prevention professionals, and decision-makers who have the responsibility of improving pedestrian safety at the state or local level.

Available for giveaway from LTAP or download at

<http://www.MichiganLTAP.org/Bridge/21_1/>

RoadSoft GIS 6.5.2 to Support the Latest Hi-Resolution Aerial Photos of Michigan's Counties

The Michigan Center for Geographic Information (CGI) is geo-referencing new high-altitude images in 2-foot/pixel resolution so that they can be used in GIS programs such as *RoadSoft GIS*. The next maintenance release of *RoadSoft GIS* will support these new images in their new format. You can already import existing “MrSID”-format aerial photos into *RoadSoft GIS* 6.5, but the new images will load faster and cover entire counties in one file, as opposed to the slower MrSID format files that cover only small parts of a county. Aerial photographs can help you quickly and easily identify unlabeled features and locations within your jurisdiction.

Refer to the CGI web page <http://www.MichiganLTAP.org/Bridge/21_1/> to see when your county is scheduled for photographing and processing. If your county is not listed, contact Michigan CGI at (517) 373-7910 to develop a partnership agreement. Aerial photos of all counties will be available in a resolution of 6 to 24 inches/pixel, but you may need to request the file from your county's partner. An additional county aerial photo will become available through the ‘Michigan Aerial Imagery Partnership’ at <http://www.MichiganLTAP.org/Bridge/21_1/>, but the schedule for delivering these publicly-available aerial photos has not been set.

Pollution Prevention Tips For Maintenance Garages

Improving Maintenance Activities to Prevent Storm Water Pollution: Part 1

Contributed by the MDOT Storm Water Management Team and its consultant, Tetra Tech

Is your maintenance garage conducting regular pollution prevention and good housekeeping practices? Do you know if your maintenance garage activities are helping or hurting our local waterways? Here are some pollution prevention tips from the Michigan Department of Transportation's (MDOT) Maintenance Division and Storm Water Management Team to help keep pollution out of our local waterways, and protect fish and aquatic habitat.

Why Care About Preventing Pollution?

In addition to pollution prevention being good for the environment, municipalities and local agencies with separated storm sewer systems (including MDOT) are regulated under the National Pollutant Discharge Elimination System (NPDES) Phase II permit. Federal, state, and local laws require local agencies to prevent or reduce polluted runoff from municipal operations into the storm drainage system. MDOT and other concerned agencies are committed to reducing their own runoff and contributing to training others procedures to minimize storm water pollution.

Know your potential

Whether maintenance activities entail cleaning paved surfaces, fueling and washing maintenance vehicles, or loading/unloading waste materials and dumpsters, all can result in the discharge of polluting materials to the storm water drainage system and local waterways.

Table 1 includes municipal operations and pollutants that may be generated from those operations. Every facility and activity has the potential to pollute when storm water picks up the pollutants and carries them to nearby rivers, lakes and wetlands.

A key component of pollution prevention is you! Does the facility maintenance staff know what to do if a hazardous material spills near the storm drain? Does facility staff know how everyday activities can contribute pollutants to nearby storm drains and waterways? The following information includes suggested maintenance facility activities to reduce storm water pollution and maintain a clean, spill free work zone.

Have a Plan

Every facility and maintenance garage will have different activities and generate different potential pollutants as would be described in a Pollution Incident Prevention Plan (PIPP). In



order to successfully reduce storm water pollution, each facility should inventory activities to assess potential impacts and revise activities to reduce impact or implement new measures and methods of conducting activities. Proper maintenance activities should be communicated to staff to provide clear guidance on how to carry out storm water practices during routine maintenance and facility management activities. The following are some suggested maintenance activities to prevent contaminated runoff and to keep work areas clean, including paved surfaces, dumpsters and loading docks. (Stay tuned for Part 2 in the next issue which will in-

Table 1: Potential Pollutants Likely Associated with Specific Municipal Facilities

Municipal Facility Activity	Potential Pollutants						
	Sediment	Nutrients	Trash/Debris	Heavy Metals	Bacteria	Oil & Grease	Pesticides
Waste Handling and Disposal	X	X	X	X	X	X	X
Vehicle and Equipment Fueling				X		X	
Vehicle and Equipment Maintenance and Repair			X	X		X	
Vehicle and Equipment Washing	X	X	X	X	X	X	X
Loading and Unloading of Materials	X	X	X	X		X	X
Outdoor Materials Storage Areas	X	X	X	X	X	X	X
Landscape Maintenance	X	X	X			X	X

clude maintenance activity tips for vehicle and equipment fueling, washing and maintenance.)

Contaminated Runoff Prevention and Spill Cleanup

Have a plan in place to address contaminated runoff prevention and spill cleanup procedures that identifies potential spill areas and materials. Make sure you have identified specific trained/certified personnel to handle spill response activities.

- Cleaning Work Areas and Paved Surfaces
- Routine Maintenance and Pollution Prevention Activities:

- Use non-toxic and recyclable chemicals/cleaning agents for maintenance when possible.
- Sweep paved areas (instead of hosing them down) regularly. If you use a mop, make sure to dump the wash water down the sanitary sewer.
- Clean out oil/water separators regularly, and after a heavy storm at a minimum.
- Do all the indoor drains go to the sanitary sewer? All inside floor drains and shop sinks should discharge to the sanitary sewer not the storm drains.

- Use drip pans or absorbent materials below all potential drip and spill areas.
- Recycle or properly dispose of absorbent materials or waste collected liquids.
- Dumpsters, Loading Docks and Storage Areas
- Routine Maintenance and Pollution Prevention Activities:
- Limit exposure of materials to rain-water whenever possible.
- Prevent storm water runoff by covering loading docks, dumpsters and storage areas under a covered structure.
- Check loading and unloading equipment regularly for leaks.
- Keep litter from accumulating around loading areas. Regularly broom or dry-sweep the loading area.
- Keep dumpster lids closed and cover trash bins.
- Make sure dumpsters are located on a flat concrete surface away from storm drainage structures.

Do not hose out the interior of dumpsters. Apply absorbent clean-up materials on any spills or liquids in the dumpster.

Store chemicals and waste materials, such as cleaning solutions and waste oil, respectively, in approved secondary containment to minimize the chance of a spill entering the storm drains.

Evaluate

Conduct periodic site evaluations to identify areas of improvement as well as new areas with a potential to contribute pollutants to the storm drainage system and local waterways. Post signs to remind maintenance staff of important everyday pollution prevention activities and key storage areas with a high potential for runoff pollution.

As always, when it comes to pollution, an ounce of prevention is worth a pound of cure! For more pollution prevention information, visit us on-line at <http://www.MichiganLTAP.org/Bridge/21_1/>.

Facility Housekeeping Checklist

(Source: IL Environmental Protection Agency)

Facility Housekeeping

	Keeping storage and work areas clean and well organized?
	Keeping non-hazardous materials from being contaminated?
	Restricting traffic through storage areas to reduce likelihood of contamination or spillage of stored material?
	Storing containers to allow for visual inspection of corrosion and leaks?
	Stacking containers in a way to minimize the chance for tipping, puncturing, or breaking?
	Raising drums off the floor to prevent corrosion from leaks or sweating concrete?
	Dispensing and transferring materials using pumps or gravity fed spigots and funnels?
	Using floating lids on liquid storage containers to prevent loss of materials through evaporation or contamination?
	Converts to reusable shipping pallets?
	Designing responsibility for process fluid recycling, maintenance and replacement?

Spills and Leak Control

	Installing splash guards and drip boards on tanks and faucets?
	Routinely inspecting and maintaining valves, pipe joints, pumps, tanks, etc?
	Using all welded piping construction, double seals and bellows-sealed valves?
	Using seal-less pumps?
	Keeping tanks and containers covered to prevent spills, evaporation. And contamination?
	Covering waste disposal areas and recycling bins to avoid rainwater infiltration?
	Using drip pans under vehicles?
	Using overflow control devices on process vessels and storage tanks?
	Installing spill basins and dikes in storage areas?
	Sweeping or vacuuming floors before washing to keep soils out of drains?
	Using pans, trays or wringable pads for capturing and retrieving spilled liquids instead of granular absorbent?
	Regularly inspecting dumpsters and compactors for spills and stains?

Construction Career Days Come to Michigan

John Ryyanen, Staff Writer
Michigan LTAP

An aging workforce, mistaken impressions of the construction field, and an emphasis on "office" jobs in our schools are leading to a shortage of workers and leaders in construction. To address this problem, Michigan LTAP, The Michigan Department of Transportation (MDOT), and the Michigan Division of the Federal Highway Administration are implementing a program to help young people discover the construction field. This program, called Construction Career Days, is in its planning and development stages in Michigan. By 2008, Michigan will join 28 other states with similar programs to give youth across Michigan more chances to discover the often overlooked, but important and exciting careers in construction. --Editor

My younger brother Pete is a civil engineer. He graduated from Michigan Tech in 1995 and works as a project manager for a general contractor. Many of the jobs he works on involve high-profile commercial developments. The job sites are very intense with lots of activity and variety. A few years ago my son Johnny and I joined Pete for lunch at one of his job sites. When we pulled up, equipment, dirt, materials, and activity stretched as far as the eye could see. Johnny absolutely loved it. As soon as we stopped, he hopped in the front seat of my truck and, with his hands on the dash, intently watched as huge machines prepared the earth to accept utilities and support new structures. Before long, Pete noticed us, waved, and started walking over. With his hard hat and work boots, Pete looked particularly cool to a six year old boy. "Is that Uncle Pete?" Johnny asked with the same excitement I would feel if I noticed Brett Favre at a table next to mine in Pizza Hut. "He's a construction worker," Johnny exclaimed.

Everyone Loves to Watch

Interestingly, the thing about construction that appealed to my then six-year-old boy appeals almost universally to men and women of all ages and from all backgrounds. At the 2006 NACE Conference held at the Amway Grand Plaza in Grand Rapids, the floor to ceiling windows that overlooked the job site for a new high-rise building across the street were regu-



A group of students in Tampa, FL survey a field as part of a hands-on trades exercise during Construction Career Days.

larly crowded with men and women trying to get a view of what was going on. The History Channel, The Learning Channel, and The Discovery Channel all regularly carry episodes that feature some aspect of the construction industry. Look around the next time you drive by a job site where a bridge is being built, a new road is being paved, or a new building is being put up. Chances are you'll see groups of people watching just because they want to see what's going on. Construction is fascinating. Like Johnny, we all watch intently as construction workers create new things.

Alarming Statistics

Johnny is now almost ten years old. He still thinks Uncle Pete is pretty cool because he drives a big pickup truck full of tools and he wears a hard hat and boots at work. But chances are very good that his interest in construction will be replaced by some other field within the next five to seven years.

Did you know that the average age of the construction worker in the U.S. is 48? Or that at the current rate of attrition, by 2008 (less than two years from now), the construction industry in the U.S. will be short almost a million workers? Why are young people choosing careers other than construction? A big part of the reason is because they simply don't know how exciting and rewarding careers in the construction field can be.

Excellent Opportunity

Fortunately, we as professionals in the field of transportation construction have a chance to help reverse this trend in Michigan. It's called Construction Career Days (CCD). Started in Texas in 1999 with the help of the Federal Highway Administration (FHWA) and a couple of concerned contractors, CCD includes a unique combination of information booths, hands-on activities, and heavy equipment operation that allows young people to see, experience, and learn more about the wide variety of exciting career opportunities that are available in the field of construction. In 2000, recognizing the national potential for the event, the FHWA partnered with the Rhode Island Department of Transportation and the University of Rhode Island Transportation Center to establish the National Construction Career Days Center, which is a clearinghouse for CCD information and materials. Since 2000, the National CCD Center has helped 28 states establish events.

MDOT, Michigan's LTAP, and the Michigan Division of the FHWA are working with other transportation construction stakeholders to hold a CCD event in spring 2008 at the Michigan State Fairgrounds near Detroit. In years to come, we hope



to hold up to three events a year in different parts of the state. Events in other states have attracted between 500 and 3000 students at a time, and the ages have ranged from 12 to 18 years old. In Michigan we're anticipating 3000 or more students.

A Clear View of a Career in Construction

The model for a CCD event includes three elements: a career expo, a hands-on trades section, and a hands-on equipment section. The career expo is like a trade show; vendors rent booth space to display and distribute information about their organizations. The Utah Department of Workforce Services had an especially effective booth at a CCD event in St. George, UT last March. This booth took kids through a construction career ladder exercise that allowed them to set career goals and identify resources (such as training institutions and financial aid) to help them achieve the goals. Watching young people's eyes light up when a bit of their future comes into focus is very exciting.

The hands-on trades section lets students experience the culture, situations, and work conditions encountered in different construction trades. In the hands-on trades section, students get to use real tools and work side by side with real professionals to achieve real results. In addition to organizing specific trades-related exercises and activities, many events incorporate actual job sites into the hands-on trades part of the CCD event. The organizers of the event in Georgia exchanged rental fees for donated concrete and labor to pour a new floor in one of the buildings where the event was being held. In Florida, a similar arrangement was made for asphalt paving in parking lots. The students participating in these events acquired real experience with the two most popular paving materials in the world.

The hands-on equipment section is the highest-profile part of any CCD event. In this part students get to operate various pieces of construction equipment. The machines are fully operational, but with limited mobility; they're fenced off, in many cases blocked up, and closely monitored by professional operators. Nonetheless, these are high-impact, memorable experiences. While working in high school and college for a landscaping company, I was delighted and honored when the owner let me use his small skid-steer loader to push dirt around. I remembered that feeling as I watched middle and high school students move dirt with massive excavators, back-



A young woman operates a paving machine as part of Construction Career Days in Tampa, FL

hoes, and bulldozers in St. George, UT last March. I guarantee those kids will never forget what it feels like to operate an 80,000 lb., 270 hp excavator.

Over 150,000 students have participated in CCD events in the U.S. since 2000, and the vast majority have been overwhelmingly positive about the events and the construction industry as a whole. Through enrollment in CCD events, parents and educators have demonstrated an increased interest in the construction field, and participation for attendees and exhibitors increases in most states every year. Leadership expert John Maxwell once said, "The two greatest moments in a person's life are the day they are born and the day they discover why." With careful planning and the support and involvement of various members of the construction industry, CCD events across the country are helping young people experience great moments. In Spring 2008, many young people in Michigan may also discover "why."

For more information on CCD in Michigan, please contact John Ryyanen at 906-487-1918 or jeryynan@mtu.edu.

For more information about the National CCD Center, visit their Web site at http://www.MichiganLTAP.org/Bridge/21_1/.



MI APWA Fleet Maintenance Workshop

Issues for Today's Fleet Managers, Parts Personnel & Technicians and Product & Equipment Trade Show
 Tuesday, Wednesday & Thursday, May 22, 23 & 24, 2007 at
 the Boyne Mountain Civic Center (new location)

This, the 10th annual Fleet Maintenance Workshop, is an extremely important conference for fleet personnel. The workshop will reinforce personnel management skills and introduce the latest repair technologies. It also gives fleet personnel the opportunity to meet peers with similar jobs and problems and discuss common solutions. In past years, the fleet maintenance workshop has filled up early, so don't delay. Register today to be sure to be included in this informative and interesting event.

Please check with your local APWA branch for possible scholarship funds to attend this workshop. Contact the Michigan APWA offices at (248) 680-7288 to register and for more information. The MI APWA has posted additional information on their Web site at <http://michigan.apwa.net/>.

LTAP Workshop Announcements

Motor Grader Training

This training includes an eight-hour hands-on field training for up to four operators, plus eight hours of classroom training for groups up to 30 people. Public agency motor grader operators of all ability levels are encouraged to attend. Supervisors are strongly advised to attend the classroom session to learn about emerging products, technologies, and techniques. There is no fee for supervisors attending the classroom portion of the training.

April 23, 2007	Delta CRC
April 30, 2007	Otsego CRC
May 14, 2007	Montcalm CRC
May 21, 2007	Calhoun CRC
June 12, 2007	Mason CRC
July 16, 2007	Kent CRC
Sept. 10, 2007	Saginaw CRC

Basic Surveying for Local Highway Departments

The Basic Surveying Workshop is a one-day course designed to familiarize attendees with the basic principles of surveying, both in the office and in the field. Individuals who would benefit from this seminar include construction workers, laborers, supervisory personnel, technicians, and inspectors. This is a basic course, and all interested parties are invited to attend, regardless of education or experience level.

May 14, 2007	Escanaba
May 15, 2007	Gaylord
May 16, 2007	Saginaw
May 17, 2007	Grand Rapids

**Contact the Michigan LTAP office to sign up for these or other workshops.
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