National Work Zone Awareness Week: April 8-12, 2002

The third annual National Work Zone Awareness Week was held the week of April 8-12, 2002. The theme for this year’s campaign was:

ROADWAYS KEEP AMERICA MOVING.
DRIVE SAFELY IN WORK ZONES.

The focus of the national work zone safety campaign is to increase driver awareness in work zones, thereby improving safety for both motorists and highway workers. Despite the efforts by transportation officials to create safe and mobile work zones, there are multiple injuries and fatalities across the country. Recent years have demonstrated an alarming trend of increasing work-zone related automobile crashes. Over recent years, the number of people killed in motor vehicle crashes in work zones has increased from 789 in 1995 to an all-time high of 1,093 in 2000. Each year, more than 80 percent of all fatalities in work zone crashes are motor vehicle occupants. In addition, more than 40,000 injuries occur in work zones each year.

The FHWA asked motorists to observe the orange signs along roads that indicate work zones. The highway agency also offered the following safety tips:

Safety Tips to Live By:
- Stay alert and give full attention to the roadway.
- Pay close attention to signs and work zone flaggers.
- Turn on headlights so workers and other drivers can see your vehicle.
- Do not tailgate.
- Do not speed. Slow down to the posted speed limits.
- Keep up with the traffic flow.
- Do not change lanes in work zones.
- Be patient. Remember work zones are necessary to improve roads and make them safer.
There are many changes going on in the reference materials that transportation professionals use. For example the MUTCD, the Standard Highway Signs Manual (see article on page 5), the “Green Book”, and the Highway Design Guide. TTAP attempts to provide you the “state of the practice” or sometimes the “state of the art” principles used in the local transportation field. We at TTAP are pleased that you, the transportation professional, are utilizing our efforts.

To date 315 individuals have attended TTAP workshops. City and county agencies make up 44 per cent of the attendees. TDOT accounted for 39 per cent. Private, federal, or other state personnel made up the balance. Six states are represented in these numbers. 57 of these participants have been TATE students. Brandon Darks from TDOT and Tracy Meggs from the City of Jackson have joined the ranks of TATE graduates. We salute their efforts.

We will be providing other workshops during the remainder of the year. These should be listed on our website ctr.utk.edu/TTAP. Also we will be mailing brochures and registration information prior to each class date.

Let us know what areas you would like future courses to cover. (Tel: 865-974-5255 or 800-252-7623 or e-mail ttap@utk.edu). Your opinions are important to us.

International Truck & Bus Safety Research & Policy Symposium

The Center for Transportation Research at the University of Tennessee and the National Safety Council hosted the International Truck & Bus Safety Research & Policy Symposium on April 3-5, 2002. Over 290 representatives from the Truck and Bus Industry, Research Institutions, Government Agencies, Safety Groups, Enforcement Agencies and other such organizations attended the 3-day symposium in Knoxville, TN. They were presented with up-to-date industry statistics, driver perception survey results, numerous keynote speakers and over 50 research papers on Driver Issues, Data Analysis, Management Issues, Enforcement Issues and New Technology.

If you are interested in finding out the top ten recommendations developed by the participants or ordering a copy of the proceedings, please go to the website: ctr.utk.edu/ts
Bicycle Safety Resources

Two-wheel transportation is becoming more popular. Also the weather and "Daylight Savings" time offers more opportunity to ride. NHTSA and its partners have provided a number of new bicycle safety resources.

Ride Smart. It's Time to Start: This 15-minute video uses humor, peer education, and a "raw egg drop" demonstration to explain the importance of wearing bicycle helmets to middle and high school-age youth. The video also explains how to choose and use a bicycle helmet and discuss the rules of the road for bicyclists. Ride Smart. It's Time to Start can be ordered from NHTSA's Auto Safety Hotline at (888) 327-4236.

Resource Guide on Laws Related to Pedestrian and Bicycle Safety: The Resource Guide is an annotated database of existing and model laws related to pedestrian and bicycle safety. Each law is assessed for its anticipated effects on the causes of bicycle or pedestrian crashes with motor vehicles, the prevention of injuries to bicyclists and pedestrians, and pedestrian and motor vehicle injuries that do not involve motor vehicles. Copies of the Resource Guide can be ordered by mail from NHTSA's Office of Research and Traffic Records, NTS-31, 400 Seventh Street, SW, Washington, DC 20590, or by fax at (202) 366-7096. The guide can also be downloaded from www.nhtsa.gov.

Bikeability Checklist: The success of the Walkability Checklist, a tool designed to assess whether a community or neighborhood is "pedestrian friendly," has encouraged NHTSA and the Pedestrian and Bicycle Information Center to create a parallel Bikeability Checklist. The Bikeability Checklist, available this spring, will allow users to assess some questions about their bicycling environment and how it can be improved. The Bikeability Checklist will be available from NHTSA and the Pedestrian and Bicycle Information Center website www.bicyclinginfo.org.

Pedestrian and Bicycle Information Center: In addition to the Bikeability Checklist, the Pedestrian and Bicycle Information Center website offers a wealth of resources for those who want to improve their bicycling environment in ways that prevent injuries. The website includes sections on community problems and engineering, education and enforcement, rails and trails, a digital library, a list of North America's most bicycle-friendly cities, a bicycle crash matrix that allows users to identify prevention strategies for particular types of bicycle crashes (based on the behavior of motor vehicle operators and bicyclists), and a newsletter. The Pedestrian and Bicycle Center Information website can be found at www.bicyclinginfo.org. The Pedestrian and Bicycle Information Center also hosts a similar website on pedestrian issues at www.walkinginfo.org.

Reprinted from Building Safe Communities, p. 2, Volume 5: Number 2 (a publication of NHTSA).

Standard typefaces used for highway signs in the United States are defined in the Standard Alphabets for Highway Signs published by the Federal Highway Administration. Defined by computer-font manufacturers as Highway Gothic, the fonts are properly referred to as FHWA Series A through F.

Series A was discontinued in the early 1970's. Series B through F are variations on a standard style, where B has the narrowest letters and F, which is rarely used, has the widest letters for a given height.

Although most vendors include lower case letters in their versions of the FHWA Series B, C, D, E, and F typefaces, only capital letters are approved by FHWA. The only alphabet that uses both upper and lowercase letters is Series E (M), or E Modified. The modification of Series E (M) is that the letter stroke (the width of lines making up the letter) is modified to be 20% of the letter height; standard Series B through F letters have a stroke width of approximately 13 to 18% of height.

Button Copy lettering is a generic term for highway sign characters which are made out of enameled metal, with small circular reflectors (buttons) inlaid in the surface to provide retroreflectivity at night. Button Copy is no longer manufactured in the United States, it has been replaced with newer computer-cut reflective sign letters. Arizona was the last state to specify Button Copy sign lettering, but stopped ordering new signs in the button style in 2000.

For a free subscription to Better Roads magazine, please visit www.BetterRoads.com

Reprinted with permission from Better Roads, April 2002, pg. 64.
New Users Guide Focuses on Creating Pedestrian Safety

In 2000, more than 4,739 pedestrians were killed and 78,000 were injured in U.S. motor vehicle crashes. These figures point toward a need to increase pedestrian and bicycle safety and mobility. Whether it's making improvements in crosswalks, sidewalks, walkways and pedestrian technologies, or expanding public education and safety programs, Federal Highway Administration’s (FHWA) Pedestrian and Bicycle Safety Research Program strives to pave the way for a more walkable future.

A part of a larger FHWA study, Evaluation of Pedestrian Facilities, the Pedestrian and Bicycle Safety Research Program recently published the Pedestrian Facilities Users Guide—Providing Safety and Mobility to help transportation engineers, planners, and safety professionals make cities more pedestrian-friendly and safe. The Guide offers plenty of useful information about safe walking environments, and highlights the main causes of pedestrian crashes and strategies for countering them.

Pedestrian Facilities Users Guide—Providing Safety and Mobility is also a tool for enabling professionals to identify pedestrian safety needs within roadway rights-of-way. It defines 13 pedestrian crash-type groupings and the types of possible safety countermeasures for each group in different crash situations. Along with this information, the guide also includes the purpose, considerations, and estimated costs for each countermeasure.

The Pedestrian Facilities Users Guide also supplies a number of case studies which highlight success stories in Asheville, NC; Cambridge, MA; Boulder, CO; Fort Pierce, FL; and Portland, OR; including traffic calming, reducing speed through neighborhoods, revitalizing downtown areas, and improving safety for children near schools.

A printed version is not yet available; however, the Pedestrian Facilities Users Guide is currently available online by visiting the following website: http://safety.fhwa.dot.gov/fourth-level/design_p.htm#crosswalk.

(Reprinted with permission from the Federal Highway Administration “Research & Technology Transporter,” March 2002.)
A new software package that the US Department of Transportation's Federal Highway Administration (FHWA) helped develop can assist highway engineers in estimating traffic delays caused by work zones and the subsequent cost in time to drivers.

"Reducing delays in highway work zones is another way to improve mobility, which is one of the Department’s strategic goals," said FHWA Administrator Mary Peters. "This program can give engineers a more accurate estimation of delays and queues and provide them with a planning tool that will help reduce the time motorists are delayed by work zone activity."

The software, called QuickZone, runs on a personal computer, furnishing the information in spreadsheet format. The system prompts the user as to just what data it needs to perform the necessary calculations. It can be used to compare the traffic impacts for work zone mitigation strategies and to estimate the costs to motorists in delays and potential backups associated with the different strategies or scenarios.

For example, QuickZone enables road owners and contractors to compare the effects of doing highway work at night instead of the day or of diverting the traffic to one road versus another road at various stages of construction. These effects can be estimated for periods as short as one day or for the entire life of the construction project.

A survey released by the FHWA last year showed that improvements in traffic flow, pavement conditions and work zones can result in the greatest rise in traveler satisfaction. The survey highlighted work zones as especially critical. Travelers view road repairs as a major contributor to traffic delays.

Four states (Maryland, North Carolina, Ohio and Wisconsin) are currently evaluating the software. Maryland is actually employing it on some of their work zone sites.

QuickZone can be ordered from either McTrans at the University of Florida (http://www.mctrans.ce.ufl.edu) or from PCTrans at the University of Kansas Transportation Center (http://www.kutc.ku.edu/pctrans). The cost is $195.
Education and training opportunities are available through the University of Tennessee Center for Transportation Research (CTR), Southeast Transportation Center (STC), and Tennessee Transportation Assistance Program (TTAP). This listing of courses currently available includes both TTAP and TATE courses that are offered in conjunction with the University of Tennessee Department of Civil and Environmental Engineering and the Tennessee Section of the Institute of Transportation Engineers. Local roadway departments can benefit from all of the workshops. Because of this, we ask that you please share this listing with others who might be interested in our workshops. The Center for Transportation Research is always eager to meet your research and training needs. If you have a special course in mind or would like a course held on site especially for your employees, please contact Jean Spangler at 1-800-252-ROAD.

*CEU and PDH credit hours available.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Date</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Zone Traffic Control</td>
<td>Feb 11</td>
<td>Jackson</td>
<td>Kervin</td>
</tr>
<tr>
<td>Storm Water Drainage</td>
<td>Feb 12</td>
<td>Nashville</td>
<td>Kervin</td>
</tr>
<tr>
<td>Work Zone Traffic Control</td>
<td>Feb 13</td>
<td>Nashville</td>
<td>Kervin</td>
</tr>
<tr>
<td>Final Scoping Review Process</td>
<td>Feb 20-21</td>
<td>Nashville</td>
<td>Beckwith/Brisson</td>
</tr>
<tr>
<td>Advanced Work Zone</td>
<td>Mar 5-6</td>
<td>Nashville</td>
<td>Lecch</td>
</tr>
<tr>
<td>Traffic Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUTCD Millennium Edition</td>
<td>Mar 12</td>
<td>Jackson</td>
<td>Brunelle/Martin</td>
</tr>
<tr>
<td>The Significant Changes</td>
<td>Mar 14</td>
<td>Nashville</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mar 19</td>
<td>Knoxville</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mar 21</td>
<td>Chattanooga</td>
<td></td>
</tr>
<tr>
<td>Planning and Engineering</td>
<td>Apr 3-4</td>
<td>Nashville</td>
<td>Beckwith/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wallace</td>
</tr>
<tr>
<td>for New Highways</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Roadway Surveying</td>
<td>Apr 16</td>
<td>Nashville</td>
<td>Kervin</td>
</tr>
<tr>
<td>Basic Roadway Surveying</td>
<td>Apr 17</td>
<td>Chattanooga</td>
<td>Kervin</td>
</tr>
<tr>
<td>Highway Capacity Manual</td>
<td>May 1-3</td>
<td>Nashville</td>
<td>Ismart</td>
</tr>
<tr>
<td>Traffic Engineering 2</td>
<td>May 14-16</td>
<td>Nashville</td>
<td>Wegman/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chatterjee/Han</td>
</tr>
<tr>
<td>Work Zone Traffic Control</td>
<td>May 14</td>
<td>Knoxville</td>
<td>Kervin</td>
</tr>
<tr>
<td>Non-destructive Concrete Testing*</td>
<td>May 23</td>
<td>Knoxville</td>
<td>Kervin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*postponed and subject to course approval

MARK YOUR CALENDAR

2002 National LTAP Conference (Celebrating 20 Years of What We Do) July 27-31, 2002 Burlington, Vermont

Southeastern Local Roads Conference (SELRC) September 22-24, 2002 Myrtle Beach South Carolina
We are always looking for your comments, ideas and suggestions to help make the TTAP program more useful to you.

1. Please send me more information on the following articles mentioned in this newsletter.

2. Please list any additional training workshops you would be interested in attending.

3. Please list topics for videos you would like TTAP to obtain.

4. Please list any other ideas or suggestions on how TTAP could assist you.

5. Please list your name and organization to verify for TTAP's mailing list.
   Name ________________________________________
   Address ________________________________________
   Title __________________________________________
   Organization ____________________________________
   Phone ________________________________________  Fax ________________________________________
   Email ________________________________________

Are you currently on TTAP's mailing list?  yes  no

Please fax your form to TTAP at (865) 974-3889 or mail to TTAP; Suite 309 Conference Center Building; Knoxville, TN 37996-4133.

FROM: ________________________________

---

- Widening the I-40/I-75 from Papermill Road to the West Hills Interchange in Knoxville.
- Construction of the final segment of Briley Parkway from Lebanon Road to Two Rivers Parkway in Nashville, which will complete the eight-lane widening of Briley Parkway from I-40 to I-65.
- Realignment of North Parkway at St. Jude Hospital and $20 million to improve access to the proposed Memphis Grizzlies Arena in Memphis.
- Construction of a new interchange to serve the Volunteer Ordinance Works Industrial Park in Chattanooga.

The Transportation Work Program also includes funds to construct the last section of state route 840 in Williamson County. This completes funding of the 78-mile southern loop of 840 which traverses five counties from Dickson to Lebanon.

Transportation Commissioner Bruce Saltsman presented the project list to members of the Tennessee General Assembly.

If you want to find out more about the road projects in your county, go to:

http://www.tdot.state.tn.us/news/roadprojects.htm
Governor Sundquist Announces 2002-2003 Road Plans, Emphasizes Rural Access

Governor Don Sundquist announced the 2002-2003 Transportation Work Program, which includes 55 projects in 41 Tennessee counties. The projects emphasize rural highway corridors including nine projects connecting county seats to the interstate with four lane highways.

“This year’s transportation work program underscores our commitment to rural counties in providing better access and promoting economic development,” said Governor Sundquist.

The program includes seven projects to widen US-64 from Memphis to Monteagle. “Keeping the pledge we made seven years ago, every mile of this 251-mile rural corridor is now either open, under contract or under development,” said Governor Sundquist.

The project list also includes state funding to construct or widen bypasses in Mountain City, Trenton, Lawrenceburg, Henderson, Lewisburg, Clarksville and Franklin. Urban areas of Tennessee, which are becoming more congested due to population increases and increased miles being traveled by motorists, are also addressed by the work program. Projects in those areas include improvements to freeways and arterial roads in the Knoxville, Nashville, Chattanooga and Memphis areas. Projects include:

Construction of the final leg of Pellissippi Parkway connecting I-40 to US-321 in Blount County.

con’t on page 7