



# FHWA Roadway Work Zone Training Consortium

Winter 2008 Newsletter, Volume II

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## State Standards, Regulations and Guidelines

A key element of the Roadway Work Zone Consortium's program of work is the Roadway Safety+ interactive training program. Recent versions of the training program CD include the ability to identify appropriate federal standards, regulations, and guidelines that relate to specific items mentioned in the CD. As part of the FHWA Work Zone Safety Grant program, this standard and regulation information cross-referencing feature is being significantly expanded.

First, those states who maintain their own occupational and safety health regulations as they pertain to road construction activities are being incorporated into the database so that users of the CD will be able to cite the actual state reference, where appropriate. In addition, some of these regulations exceed federal regulations, and so entries are being created to include these additional requirements.

States that have state occupational safety and health regulations relevant to the training program CD include

California, Hawaii, Maryland, Michigan, Minnesota, North Carolina, Oregon, South Carolina, and Washington. Second, the consortium is working to include additional state standards and regulations pertaining to other aspects addressed in the Roadway Safety+ CD. Flagging training and certification requirements and internal traffic control plans are among the various topics being examined for incorporation into the database.



At the conclusion of this effort, it is envisioned that it will be possible for those using the training program to identify the state of those being trained, and have the database identify the standards, regulations, and guidelines that are pertinent to that location.



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## Night Work Sub Group

The Consortium has finished developing content for the modules covering safety during night work operations.

Currently the Night Work course is made up of seven modules. The first module, "Risks and Health Issues" is the anchor for the course and the additional modules are designed to be inserted into the course based on the audience or topics needed to review. The first module has already been formatted to blend into the Roadway Safety Program.

Custom night work graphics, icons and pictures are being developed to insert into the slides of the module. Drafts of two of the seven modules will be ready in the first quarter of 2008 .

## FHWA Roadway Work Zone Training Consortium Partners





## National Traffic Management & Work Zone Safety Conference

The FHWA Work Zone Consortium was a key player and participant in the National Traffic Management and Work Zone Safety Conference held October 9-13, 2007, in Fort Lauderdale, Florida. Nearly 300 people participated in the conference and events hosted by The National Work Zone Safety Information Clearinghouse.

The conference effectively brought together many perspectives on work zone safety, including traffic and worker safety, public and private sector concerns, contractors, designers, engineers, etc., in one location to share ideas and best practices in an effort to improve roadway work zone safety for all roadway users.

The conference featured over 30 technical sessions, 70 speakers, off-site tours and live crash response demonstrations.

Attendees to the conference were also allowed to attend and participate in Intertraffic North America 2007, a trade show aimed specifically at the traffic management and construction industry.



In an effort to make the conference information available to a wider audience, the Clearinghouse has posted the following materials on their website: [www.workzone-safety.org](http://www.workzone-safety.org):

- 24 of the session presentations
- 5 video taped presentations and events:

[National Work Zone Safety Information Clearinghouse video](#);

[Overview of Night Work Safety-Pros and Cons](#);

[Vehicle Rollover Demonstration](#);

[Legal Liabilities for Work Zone Crashes](#);

[Closing Session – Review of Conference/Best Practices](#)

- Two articles highlighting special events held during the conference, a tour of the Broward County Traffic Management Center and a live incident management demonstration.

All materials may be viewed at no cost. More presentations and videos from this conference will be posted as permission and information becomes available.

Live Incident Management Demonstration  
watch the video on  
[www.workzonesafety.org](http://www.workzonesafety.org)!



... The next National Traffic Management & Work Zone Safety Conference will be held in 2009.

## Audience Response System Enhances Training Evaluation



One goal of the Consortium is to evaluate the impact the training program has on the attitudes and behavior of trainees. To do this the Consortium began piloting an Audience Response System (ARS) for quantitative evaluation of training program impact. ARS consists of a remote 'voting' keypad for each trainee and a base-station connected to a computer with projection system.

Consortium member FOF Communications created proprietary software to permit ARS-collected data to input directly into the Roadway Safety Program Macromedia software product. The ARS permits immediate trainee response for classroom review and captures responses in data files for later analysis.

The Consortium developed a ques-

tion set of four pre/post items per module to capture impact on key behaviors or work practices. The first pilots took place at the National Traffic Management & Work Zone Safety Conference and an Laborers-AGC instructor workshop. These pilots involved managers and trainers. Future pilots will involve target trainees – road construction workers, supervisors, and others.

Results. Sample results here demonstrate the ARS process.

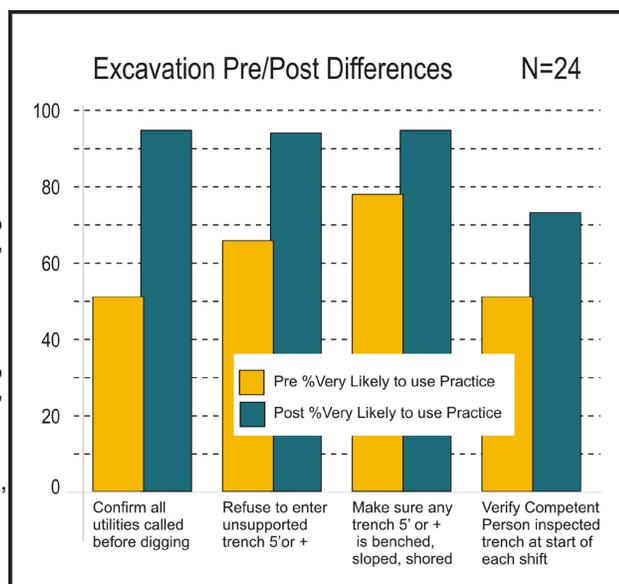
However, they are not predictive of outcomes with target trainees due to the nature of the pilot audiences.

Results show percent answering 'very likely' to each of four pre/post questions. Pre-training, 50% to 80% were 'very likely' to take the action. Post-training, 71% to 92% were 'very likely' to take the action. For Q1, Q3, and Q4, these differences are significant with the 95% Confidence Interval for the true difference ranging from

at least 3% to as much as 70%, depending on the question.

Benefits include:

- Immediate feedback to instructor on classroom comprehension.
- Instructor knows immediately if he is being effective.
- Instructor can re-teach or change teaching techniques.
- Allows quiet students to be heard anonymously.
- Instructor can pinpoint topics that were not mastered by class.



## The ANSI A10.47 Work Zone Safety For Highway Construction Standard

Members of the Consortium are working to develop a new ANSI safety standard for roadway work zone construction. The standard is being developed through a workgroup organized under the ANSI A10 Committee, which focuses on construction and demolition operations. The new standard is intended to develop model practices to promote worker safety in the hazardous roadway work zone environment. This ANSI A10.47 draft standard was recently revised to conform with a new FHWA rule on Temporary Traffic Control.

The final draft will likely be balloted before the full ANSI A10 Committee during the first quarter of 2008. Anyone interested in getting involved with this effort should contact Travis Parsons at the Laborers' Health and Safety Fund of North America at 202-628-5465.



## FHWA Roadway Work Zone Training Consortium

### FHWA Roadway Work Zone Training Consortium Partners

Laborers Health & Safety Fund of North America  
American Road & Transportation Builders Association  
National Asphalt Pavement Association  
International Union of Operating Engineers  
Laborers'-AGC Education & Training Fund  
American Association of State Highway & Transportation Officials  
CNA  
Texas Transportation Institute  
James E. Bryden, PE  
FOF Communications  
*National Institute for Occupational Safety and Health*

### Work Zone Safety Grant Information

**Background . . .** Work zones remain a dangerous element of the transportation network, representing over 1000 fatalities annually. The work zone related injuries and fatalities involve motorists traveling through the work zone, as well as workers working on roadway construction/maintenance/utility projects. The trends of growing traffic, increased road construction, and public frustration with work zones have contributed to the growing intensity of work zone safety impacts on workers and traveling public. The impacts raise an urgent need for guidance and training for work zone workers, the public, and transportation agencies and groups towards prevention of highway work zone injuries and fatalities.

**Grant Tasks . . .** The objective of this grant is to provide assistance for highway work zone safety training and guideline development towards the improvement of highway work zone safety. The Roadway Work Zone Training Consortium will perform the following tasks under this grant: Highway Work Zone Worker Safety Training; Highway Work Zone Safety Guidelines Development; and Highway Work Zone Safety Guidelines Training. [More information.](#)

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