

**FHWA Work Zone Safety Grant
Training Courses Offered by ATSSA under Area 1 of the Grant**



**What Everyone Should Know (WESK)
About Temporary Traffic Control Training**

A Four-Hour Awareness Program

This four-hour awareness level program is for the person in your company responsible for managing the work zone training function – safety officers, supervisors, or any other person whose decisions may impact traffic safety.

Lack of training is one of the leading causes of tort liability. It is very important to have a trained work force in your company. The *Manual on Uniform Traffic Control Devices* states that “each person whose actions affect temporary traffic control (TTC) zone safety, from the upper-level management through the field workers, should receive training appropriate to the job decisions each individual is required to make. Only those individuals who are trained in proper TTC practices and have a basic understanding of the principles (established by applicable standards and guidelines, including those of this Manual) should supervise the selection, placement, and maintenance of TTC devices used for TTC zones and for incident management.”

The program will discuss the who, what, and why of training: Who needs training? What type of training is needed? Why is training needed? What training avenues are there? Where do you go for comprehensive TTC training? How can you ensure that workers and other decision-makers are working as safely and effectively as possible?

This program is intended to answer these questions and assist you in putting together a comprehensive training program for your employees. It will also offer an in-depth review of ATSSA’s Work Zone Safety Grant and how you can take advantage of the unique opportunities offered under this grant.

Traffic Control Technician (TCT)

Introductory training in the principles of temporary work zone traffic control

All those involved in construction work zone projects should have a basic knowledge of temporary traffic control that allows them to assist in installing traffic control devices, in

monitoring their performance, and in recognizing deficiencies during the course of a project.

The one-day TCT course provides an introduction to temporary traffic control in work zones for individuals who work in the field installing and removing traffic control devices. It teaches concepts, techniques and practices in the installation, and maintenance of traffic control devices. The students are provided an ATSSA Guide which is used as the basic text material for the course. This handy Guide booklet contains material condensed from the *Manual on Uniform Traffic Control Devices* (MUTCD) but in a simplified, easy to understand and use format.

All ATSSA classes are taught by highly qualified instructors that bring many years experience in traffic control to the classroom. They present this class using an illustrated PowerPoint presentation covering the material in the Guide along with personal observations and anecdotes from their experiences. The student will leave this class with practical knowledge that will enable them to help make their projects safer for the workers, motorists and pedestrians and help reduce the exposure of the worker and the company to possible litigation.

Previous experience in temporary traffic control is not required for this course. However, if the student wishes to be TCT certified; one year (2000 hours) of temporary traffic control experience will be required.

In most states, passing this course is a prerequisite to register in the Traffic Control Supervisor course. Contact ATSSA for specific state requirements.

TCT CERTIFICATION REQUIREMENTS:

- Pass TCT Course with 80% or greater on exam
- Possess one year (2000 hours) temporary traffic control experience
- Complete Certification Application and pay Certification Fee
- Provide 2 references to verify work experience
- Be approved by the ATSSA Certification Board

Certification is good for 4 years. At the end of 4 years, the student must take a recertification exam to be recertified.

Traffic Control Supervisor (TCS) **Advanced training in the principles of temporary work zone traffic control**

All work zone personnel should receive training according to the job decision they are required to make. Training enables highway workers to provide for the safety of motorists, workers and pedestrians.

The Traffic Control Supervisor course is a 2-day course designed for individuals who supervise traffic control technicians and other field personnel. It provides comprehensive

training on work zone standards, guidelines, installation and removal procedures, inspection, documentation and supervisory skills.

The TCS course expands on the concepts and techniques taught in the Traffic Control Technician (TCT), which is a prerequisite for this course*. Students are taught how to read and interpret traffic control plans for implementation in the field. Several workshops included in this course are designed to provide hands-on experience implementing and modifying temporary traffic control plans for various real life situations. It also teaches how to recognize, analyze correct and document deficiencies. These workshops also provide the opportunity for students to learn to work together as a team and to present solutions to the class. A further objective of this course is to teach the students skills necessary to become an effective Supervisor so they can effectively oversee personnel in the field.

ATSSA instructors bring years of practical experience in traffic control to the classroom. They present this 2-day class using an illustrated PowerPoint presentation covering material from the latest edition of the *Manual on Uniform Traffic Control Devices* (MUTCD). State and local standards and guidelines may also be discussed. Instructors will spend time with each workshop group providing direction and advice to the groups as they work on their assignments. Each student receives a notebook containing a Student Reference Guide and workshop materials, Part 6 of the MUTCD and the ATSSA *Quality Guidelines for Traffic Control Devices*.

***Completion of the ATSSA Traffic Control Technician course is required as a prerequisite to register for this course.** *In some states, the Traffic Control Supervisor course is a stand-alone course so passing the Traffic Control Technician course is not required. Contact ATSSA for state specific requirements.

TCS CERTIFICATION REQUIREMENTS:

- Pass TCT and TCS Courses with 80% or greater on exams
- Possess two years (4000 hours) temporary traffic control experience
- Complete Certification Application and pay Certification Fee
- Provide 2 references to verify work experience
- Be approved by the ATSSA Certification Board

Certification is good for 4 years. At the end of 4 years, the student must take a recertification exam to be recertified.

Students will leave this course with knowledge needed to interpret and implement temporary traffic control plans in the field to make the project as safe as possible for their fellow workers, motorists and pedestrians.

FLAGGER INSTRUCTOR TRAINING COURSE (Train the Trainer)

This 2-day course is designed to prepare Traffic Control Supervisors to be able to present the 4-hour ATSSA Flagger Registration course to those wishing to become ATSSA-

registered flaggers. In addition to basic training in fundamental concepts of work zone traffic control and flagging, adult training techniques will be presented, discussed, and demonstrated. There will be opportunity for the participants to put into practice training techniques and flagging procedures. At the conclusion of the course an exam will be taken. The successful completion of the course, including the exam, will result in certification as an ATSSA-Certified Flagger Instructor.

This course is open to anyone who has successfully completed the ATSSA's Traffic Control Technician and Traffic Control Supervisor training courses.

Upon successful completion of the TCT, TCS and FIT courses, students are certified to train flaggers for a period of 4 years. To recertify, a student must pass a recertification exam.

NOTE: In certain states, the Traffic Control Supervisor course is a stand-alone course. In these states, since completion of the Traffic Control Technician course is not a prerequisite, completion of the TCT course is not required in order to be eligible for the Flagger Instructor Training course. Contact ATSSA for state specific requirements.

Design and Operation of Nighttime Temporary Traffic Control in Work Zones

(NTC)

A FHWA Work Zone Safety Grant Sponsored Course

This one-day course will allow participants to understand considerations of nighttime work zones. The course discusses factors affecting the feasibility of nighttime work zones and their considerations, such as worker and equipment visibility, illumination requirements, glare avoidance and nighttime enhancements. Basic knowledge of temporary traffic control is recommended but not required. The course is intended for both work zone designers and work zone supervisors.

Course Objectives:

- Discuss temporary traffic control factors that influence the design and operation of nighttime work zones
- Discuss special considerations on nighttime work zones
- Discuss work zone lighting requirements

Course Modules:

- 1) Factors Affecting the Feasibility of Night Work
- 2) Nighttime Temporary Traffic Control
- 3) Lighting Requirements
- 4) Nighttime Typical Applications

TRAFFIC CONTROL FOR UTILITIES

Introductory training in the principles of temporary work zone traffic control applicable to utility work.

DESCRIPTION

All those involved in utility projects should have a basic knowledge of temporary traffic control that allows them provide for the safest traffic environment.

This 1-day UTILITY course provides an introduction to temporary traffic control for utility workers and others whose actions may affect safety. It teaches concepts, techniques and practices in the installation and maintenance of traffic control devices in accordance with the *Manual on Uniform Traffic Control Devices* (MUTCD).

Topics discussed include:

- Sources of standards and guidelines
- Fundamental principles of temporary traffic control
- Component part of a typical utility operation
- Traffic control devices and their requirements
- High-visibility safety apparel
- Worker Protection
- Typical utility applications
- Short duration lane closures
- Work close to the travel lane with and without lane encroachment
- Work beyond the shoulder

All ATSSA classes are taught by highly qualified instructors that bring many years experience in traffic control to the classroom. They present this 1-day class using a state-of-the-art power point presentation along with personal observations and antidotes from their experiences. The student will leave this class with practical knowledge that will enable them to help make their projects safer for the workers, motorists and pedestrians and help reduce the exposure of the worker the company to possible litigation.

Students are required to complete a written examination and will receive a certificate of completion.

AUDIENCE

This training is recommended to individuals that perform utility operations involving temporary traffic control.

TRAFFIC CONTROL FOR TREE CREWS (UTC for Tree Crews)

Introductory training in the principles of temporary work zone traffic control applicable to tree care operations along roadways.

DESCRIPTION

Tree crews whose work places them in or near busy streets should have a basic knowledge of temporary traffic control that allows them provide for the safest traffic environment.

This 1-day WORK ZONE course provides an introduction to temporary traffic control for arborists and others whose actions may affect safety. It teaches concepts, techniques and practices in the installation and maintenance of traffic control devices in accordance with the *Manual on Uniform Traffic Control Devices* (MUTCD).

Topics discussed include:

- Sources of standards and guidelines
- Fundamental principles of temporary traffic control
- Component part of a typical tree care operation
- Traffic control devices and their requirements
- High-visibility safety apparel
- Worker Protection
- Typical utility applications
- Short duration lane closures
- Work close to the travel lane with and without lane encroachment
- Work beyond the shoulder

All ATSSA classes are taught by highly qualified instructors that bring many years experience in traffic control to the classroom. They present this 1-day class using a state-of-the-art power point presentation along with personal observations and antidotes from their experiences. The student will leave this class with practical knowledge that will enable them to help make their projects safer for the workers, motorists and pedestrians and help reduce the exposure of the worker the company to possible litigation.

Students are required to complete a written examination and will receive a certificate of completion.

AUDIENCE

This training is recommended to individuals that perform utility operations involving temporary traffic control.

Safe and Effective Use of Law Enforcement Personnel in Work Zones

4-hour course

Background. On July 26, 2000, a truck tractor pulling a loaded semitrailer, and traveling at a driver-estimated speed of 65 mph in a 55-mph work zone, collided with a Tennessee Highway Patrol vehicle. Witnesses reported that the patrol car exploded and caught fire at impact. The patrol car was pushed approximately 192 feet before it came to rest in the median. The tractor-semitrailer continued through a 61-foot depressed earthen median

and into the westbound lanes, where it collided with a 1997 Chevrolet Blazer. The tractor-semitrailer then continued across the travel lanes and came to rest in a wooded area on the north side of I-40. The State trooper in the Tennessee Highway Patrol vehicle was killed, and the Chevrolet driver was seriously injured.

The National Transportation Safety Board (NTSB) investigated the crash and found among other things that the officer did not adequately understand the nature of the work zone and improperly deployed himself for enforcement activity. The NTSB made the following recommendation to the Federal Highway Administration: *“develop a training program for law enforcement personnel that addresses traffic control strategies, and encourage States to adopt it. At minimum the training program should incorporate material from part 6 of the Manual on Uniform Traffic Control Devices (MUTCD) and information concerning procedures and terminology typically used by highway engineers in establishing and evaluating work zone operations.”* This recommendation was published in the report NTSB/HAR-02/01. This document outlines a training course to address this recommendation.

Course Goal and Participant Objectives. The goal of this course is to provide awareness and guidance to law enforcement officers (LEO) for their assigned roles in active work zones, whether on duty or off-duty. Upon completion of the course, participants will:

- a) Understand that national standards and guidelines existing for uniform treatment of temporary traffic control for work zones
- b) Understand the role and responsibilities of law enforcement officers in work zones and safe procedures for undertaking their role
- c) Understand the terminology and proper communication channels associated with executing their role in work zones
- d) Recognize the different work zone types (long-term construction, short-term, maintenance, mobile operations) and configurations
- e) Recognize the component parts of a typical work zone

Target Audience. The primary target audience for this course is law enforcement personnel who will plan enforcement for work zones or be assigned to execute their roles associated with work zones. A secondary audience will include personnel from highway contractors, subcontractors, utility personnel, and highway agency staff who will work with law enforcement. Joint training is expected to foster a mutual respect and cooperation towards making work zones safer and more traffic efficient.

Outline.

- 1. Introduction - Law Enforcement and Work Zones (15 minutes)**
 - Magnitude of work zone issues
 - Standards and guidelines
 - Roles and responsibilities of Law Enforcement, Contractor, and State
 - Risks to LEOs

- 2. Roles and Responsibilities (30 minutes)**
 - Duties and responsibilities of parties involved with work zones
 - Coordination and communication

- 3. Understanding Work Zones (30 minutes)**
 - Types of work zones
 - Component parts of typical work zones
 - Installation and removal procedures
 - MUTCD Part 6E – Flagging Operations (brief)
 - Incident Management (MUTCD Part 6I)

- 4. LEO Deployment & Operating Practices (60 minutes or more)**
 - Deployment
 - Safe & Effective operating practices
 - Situational review

Practical Application Workshop (60 minutes)

Groups of students will be provided with various (2-3) examples of work zones (either typical applications from the MUTCD or real-world traffic control plans) along with a scenario for each (volumes, conditions, work duration, nighttime, etc.). Groups will be asked to review the work zone situations and discuss the role of LEOs, the best location for their patrol vehicles, general safety concerns, and contingencies for incidents.

Set up #1 – Single LEO is on scene. Work zone is 10 miles long on a north-south rural, multi-lane freeway – 3 lanes each direction with 10-foot shoulders. A serious injury crash occurs 500 yards from an off-ramp in the NB lanes in the middle of the project, blocking all three lanes in that direction. There is a concrete median barrier. The next nearest interchange is 5 miles on either side of this one. The LEO is patrolling three miles up stream from the crash. Contractor personnel are present in the vicinity of the crash. The nearest town is seven miles south of the project.

Set up #2 – A temporary work zone has been set up on a 45 MPH, four-lane city arterial, two 12-foot lanes in each direction. The work area is in the lane next to the curb of the eastbound lanes and both lanes of eastbound traffic are being detoured reduced to one. Westbound traffic is unaffected. The taper closing the curb lane is comprised of 12 cones spaced 10 feet apart. A flagger has been positioned at the beginning of the lane taper to direct eastbound traffic to slow and to merge and is standing in the middle of the lane being closed, just inside the cone taper. Fifty feet

ahead of the flagger is a sign reading “Be Prepared to Stop”. One-hundred-fifty feet in front of the BPTS sign is a sign reading “Road Work Ahead”. The LEO has just driven through the work area in advance of positioning himself for patrol.

Emergency Traffic Control for Emergency Responders (ETCER) (police, fire rescue, tow truck operators)

This course is aimed at police and fire rescue personnel involved with traffic control, either by responding to an incident or enforcing traffic control in work zones. The basic principles of incident management and considerations for traffic control enforcement in work zones are presented. The course covers principles and practices of temporary traffic control presented in the Manual on Uniform Traffic Control Devices (MUTCD), a Federal standard. The course includes a discussion on the requirements of the component parts of typical work zones, such as taper lengths, traffic control device requirements, and flagging operations. This course is **a must** for police and fire rescue personnel.

COURSE OUTLINE

1. Introduction
 - 1a. Definitions
 - 1b. Typical responsibilities
2. Standards and Uniformity
 - 2a. MUTCD
 - 2b. MUTCD Section 6I
 - 2c. NFPA 1500/1561
3. Component Parts of a Temporary Traffic Control Zone
 - 3a. Requirements of each
 - 3b. Applications during emergency operations
4. Flagging Operations
 - 4a. Typical “flagging kit”
 - 4b. Flagging procedures
5. Typical Applications
6. Appendix

- All courses are “open registration”: first-come, first-served
- Course fees: \$0 for Federal Employees; \$25 for Public Officials; and \$50 for all others

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To register, please visit www.atssa.com and click on Education and Certification

Link to website:

<http://www.atssa.com/cs/Federal-Highway-Administration-work-zone-safety>