

Safe and Effective Use of Law Enforcement Personnel in Work Zones (LEC) A FHWA Work Zone Safety Grant Sponsored Course

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-O2/O1. 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 uni form 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
- 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.





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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)
 - Tupes of work zones
 - Component parts of typical work zones
 - Installation and removal procedures
 - MUTCD Part 6E Flagging Operations (brief)
 - Incident Management (MUTCD Part 61)
- 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.



LEC TENTATIVE SCHEDULE

For the period October 1, 2007 to September 30, 2008

States *Opportunity State	County or Parish	Dates
*Alabama	Tuscaloosa County	TBD
*Arizona	Yavapai County	TBD
*California	Placer County	TBD
*Florida	Orange County	TBD
*Illinois	DuPage County	TBD
*Kentucky	Daviess County	TBD
*Louisiana	St. Charles Parish	TBD
*Mississippi	Jefferson County	TBD
*Missouri	Greene County	TBD
*North Carolina	Wilson County	TBD
*Ohio	Franklin County	TBD
*Pennsylvania	Butler County	TBD
*South Carolina	Greenville County	TBD
*Tennessee	Maury County	TBD
*Texas	Sabine County	TBD
*Wisconsin	Lafayette County	TBD
Arkansas	Cross County	TBD
Georgia	Monroe County	TBD
Maryland	Montgomery County	TBD
Massachusettes	Hampshire County	TBD
Minnesota	Carver County	TBD
New Jersey	Monmouth Co9nty	TBD
Oklahoma	Tulsa County	TBD
Virginia	City of Hampton	TBD