



**Advanced Warning. It's  
a life saver!**



Photos by Ron Moore

If this is how you currently operate while working in or near moving traffic, you are a prime candidate to be the next "Struck-by" incident.

# Yes, It does happen!!



- Line-of-duty death statistics show working in or near moving traffic places responders at a significant risk of injury or death.

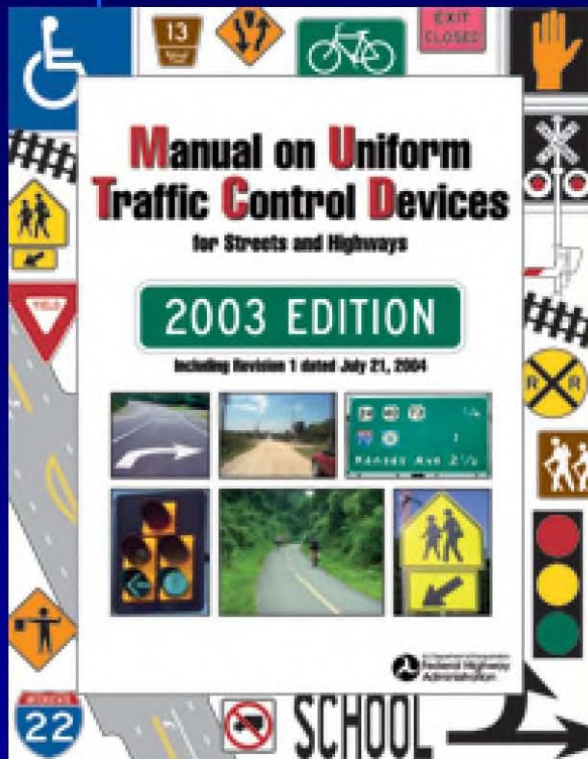
# It's not just us!



Don't be lulled into complacency just because the Police are on scene.

# Manual on Uniform Traffic Control Devices

## \*MUTCD\*



- The Federal Highway Administration publishes the **MUTCD**
- The **MUTCD** is adopted by reference in accordance with Title 23, United States Code, Section 109(d) and Title 23, CFR part 655.603
- The **MUTCD** is approved as the **National Standard** for designing, applying, and planning traffic control devices.
- All traffic control devices we use and actions we take as emergency responders must comply with **MUTCD** standards

## Get In – Do Your Job – and Get Out in Less Than 30!

According to Section 6G-2 of the newly revised *Manual on Uniform Traffic Control Devices* (MUTCD), if we want our on-scene activities to be considered temporary and of short-duration, then they cannot exceed 30 minutes. MUTCD calls this a minor duration traffic incident. If we are there longer than that, then it is considered that we have established an intermediate (30 minutes to two hours) or major duration (more than two hours) work zone and additional, more stringent DOT regulations and highway management requirements apply.

For example, an intermediate-duration work zone requires advance warning for a minimum of a half mile before the same incident scene that would only require 300 feet of warning if we were there for just a short time; say 20 minutes or less. In addition, advance warning for a short-duration work zone can legally be just one vehicle with a flashing light to notify approaching traffic of the hazards ahead of them. The same crash scene, once we are there longer than one hour legally becomes an intermediate-duration work zone and may require as many as 75 or more cones plus warning signs to comply with the DOT advance warning guidelines.

— Ron Moore

# Advanced Warning Area

- The section of roadway where drivers are first informed about the incident they are approaching.
  - Advanced warning may vary from a single sign or warning light on a vehicle to a series of signs, cones, flares or emergency vehicles far in advance of the actual incident scene.
  - On urban streets, DOT guidelines consider effective placement of the first warning that a motorist encounters to be a distance in feet equal to 8 times the posted speed limit. (ie.  $8 \times 40 = 320$  feet)
  - On rural highways, normally characterized by higher speed limits, that distance can be almost one mile.
- The most current NFPA 1500 requires a retro-reflective highway safety sign be deployed as advance warning. This fluorescent pink sign must contain the wording "Emergency Scene Ahead".



# Advanced Warning Area

(CONTINUED)

## Recommended Advance Warning Distances



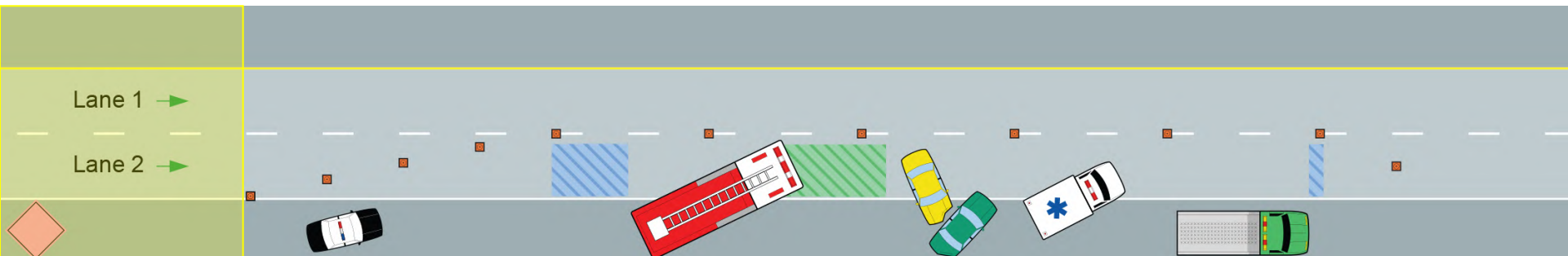
- **Urban Street – Low posted speed limit**  
300 feet before incident area
- **Urban Street – Higher speed limit**  
1,050 feet before incident area
- **Rural Road**  
1500 feet before incident area
- **Expressway / Freeway**  
5,140 feet before incident area



# Safety on Limited Access Highways

- Never allow traffic flow through your incident scene.
  - Past or around is OK, but never through.
  - If involved vehicles are on both sides of the roadway, shut it down until you no longer need to cross between.
- Use the opposite direction Engine for a second upstream block.
  - Only if not needed to block for the opposite direction Ambulance
  - This crew is dedicated as a safety crew, not to work at the incident scene

- Established upstream of the incident to alert drivers of the upcoming incident scene
- Should be high priority for emergency responders
- Placement of advance warning devices may need to be adjusted for situations near a corner, hill, or other reduced visibility situations
- A shoulder taper, set up using traffic cones, may also be established in the Advance Warning Area



- Emergency traffic control warning and guide signs should have:
  - Diamond shape
  - Black lettering and a black border
  - Fluorescent pink background
- The signs come in two sizes:
  - 36" x 36" – Low speed, low volume
  - 48" x 48" – High speed, high volume



# Lesson 7

# Variable Message Signs (VMS)



# Lesson 7

# Portable Changeable Message Signs (PCMS)



# Lesson 7

# Advance Warning Considerations – Sun Glare



# Lesson 7

# Temporary Traffic Control Distances (Required for Incidents Lasting > 24 hours)

Speed (mph)	Advance Warning Sign Minimum Distance (ft)				Recommended Lengths (ft)					Cone Spacing (ft)
	A	B	C	Cumulative Total <sup>1</sup>	Shoulder Taper <sup>2</sup>	Taper	Distance Between Tapers (longitudinal) <sup>3</sup>	Buffer (longitudinal)	Downstream Taper	
25	100	100	100	300	45	125	250	155	50-100	25
35	350	350	350	1,050	85	245	490	250		35
45	500	500	500	1,500	180	540	1,080	360		45
55	1,000	1,500	2,640	5,140	220	660	1,320	495		55
65	1,000	1,500	2,640	5,140	260	780	1,560	645		65

The appropriate use of traffic control devices to establish a Traffic Incident Management Area reduces the likelihood of secondary crashes



# Do It Right & Go Home in the Morning

