



# *Basic Worker Safety*



Developed by:

American Traffic Safety Services Association<sup>©</sup>

# *Traffic Control in Work Zones*



- Temporary
- Constantly changing
- Not well liked by motorists
- Unexpected by the road users
- Workers may be present
  - 3 workers die each day!!
  - 20% of work zone fatalities



**WORKER SAFETY**



# Record High!

USA TODAY • WEDNESDAY, JULY 25, 1991 • 35

## Nation

# Deaths in highway work zones reach record

By Hava El Kaseh  
USA TODAY

**WASHINGTON** — The number of people killed along highway work zones has reached a record high and could get higher as record dollar pours in to build the nation's congested highways.

A total of 1,617 people were killed in work zones in 1990, the most in any full-year period reported by the National Highway Traffic Safety Administration. The previous record was 1,228 in 1988. In addition, 10,000 people were injured on average each year in the late 1980s.

The agency tracks accidents in work areas on state highways. It doesn't include local roads, urban streets.

The accident toll, which has soared 75% from 895 deaths in 1970, has prompted congressional officials, construction experts and safety advocates tied to a House subcommittee for funding. Besides the extra money it is needed to



**Sign for safety:** This caution in Paramore 87 Road, Lodi, N.J., was part of National Work Zone Safety Awareness Week in April.

make work zones safer and to reduce road fatalities.

"Just slowing say they think work zones are more dangerous for workers than other highway projects," said Secretary B. Doug Costello said, but about 85% of those killed were drivers and passengers of cars that crashed into other cars or into roadside construction equipment. About 17% of those who were roadworkers and pedestrians.

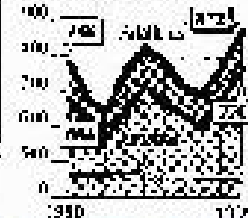
The most common causes of work zone deaths, not so big about and failing to yield the right-of-way.

MHC construction and more expensive can make the problem worse. There are 600 highway work zones in Virginia, 500 in New York and California, 400 in Illinois.

"Nothing is needed to overcome the bad habits behind the wheel," Costello said.

### Headwork zone fatalities rise

Number of fatalities in work zones rose 10% in 1990



workers in work zones in 1990, the toll rose 10% from what they are for violators in outside of construction.

The firm is attempting to get on drivers' minds with signs at work zones in a child-like handwriting that reads "Please Slow Down My Daddy Works Here." For those who don't get the message, the state has installed electronic signs that show how many people have been ticketed for speeding from the work zone.





## *Working Near Traffic*

- Extremely dangerous
- Requires
  - Training in safe practices
  - Alertness
  - Common sense
  - Sense of responsibility



# *Responsibilities of Traffic Workers*



- His/her own safety
- Safety of other workers
- Safety of the driving public
- Safety of pedestrians and bicyclists

*Know how to do  
the job right!!*





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- Are tired or preoccupied
- Workers need to be alert
  - To protect themselves
  - To protect fellow workers
  - To protect motorists

## *Drivers*





## *Most Common Accidents*

- Flaggers struck by motorists
- Workers struck by construction equipment
- Workers struck by motorists



# *Worker Safety Regulations*

- Temporary traffic control
  - *Manual on Uniform Traffic Control Devices (Part 6)*
    - Minimum Federal standards
    - Includes worker safety regulations
    - Applies everywhere, including utility operations







# *Worker Safety Regulations*

- Worker safety
  - Occupational Safety and Health Administration (OSHA) may enforce worker safety requirements in the MUTCD
    - Retroreflective garments
    - Hardhats





# *Keys to Improve Worker Safety*

- Training
- Worker visibility
- Temporary traffic barriers
- Speed reduction
- Additional elements



- All workers should be trained on
  - How to work near traffic
  - Safe traffic control practices
  - Device usage
  - Device placement

## *Training*





## *Training*

- *" Each person whose actions affect temporary traffic control safety – from upper-level management personnel through field personnel – should receive training appropriate to the job decision each is required to make."*

»Manual on Uniform Traffic Control Devices

*Is training needed?*



# *Worker Visibility*



- Bright, highly visible garments
- Retroreflective for nighttime work
- Visible at a minimum distance of 1,000 ft.
- Identify the wearer as a person







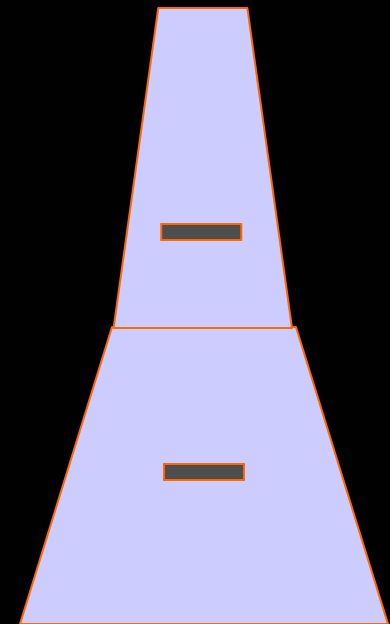
Garments should identify the wearer as a person; throughout all body motions..



# *Temporary Traffic Barriers*



- Should be placed along the work space depending on
  - Lateral clearance of workers
  - Speed of traffic
  - Duration and type of work
  - Time of day
  - Volume of traffic





# *Speed Reduction*



- Reducing the speed of motor vehicles should be considered
  - Regulatory speed zoning
    - Requires approval
  - Funneling
  - Use of law enforcement officials
  - Lane reduction
  - Flaggers (last resort!)



- Shadow vehicles
- Road closures
- Police use
- Lighting
- Special devices

## *Additional Elements..*



## *Shadow Vehicles*

- Used during mobile and moving operations
- Equipped with
  - appropriate lights
  - Warning signs
  - Rear-mounted impact attenuator
  - Retroreflective markings





# *Truck-Mounted Impact Attenuators*

- Used to protect workers during moving operations





## *Road Closures*

- If alternate routes are available
- Facilitate project completion
- Reduce worker vulnerability



- In highly vulnerable work situations
  - Particularly short duration
- Dramatically improved safety

## *Police Use*

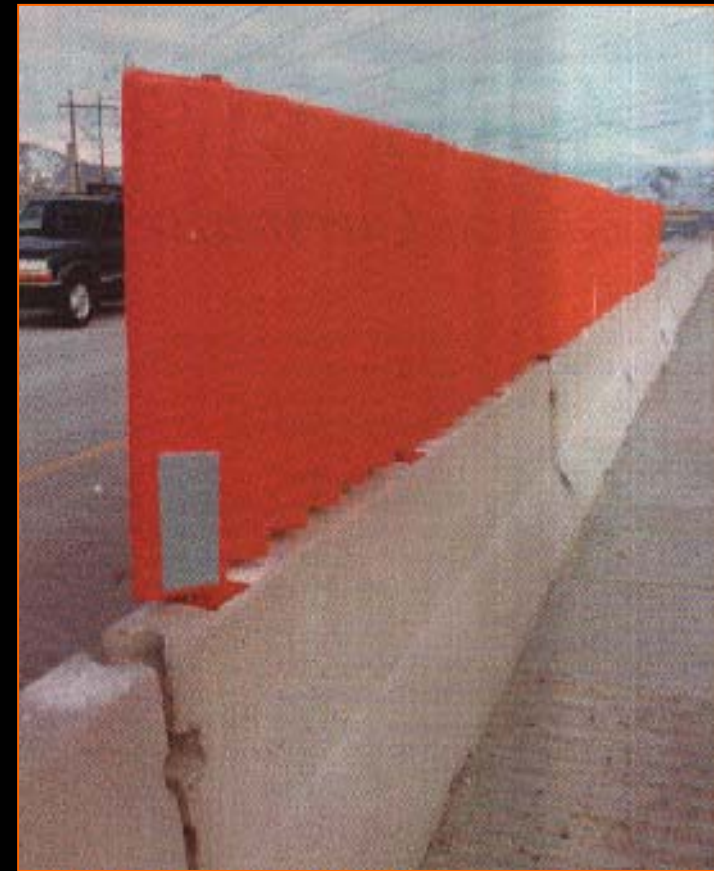




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- Essential for nighttime work
- Beware of disability glare
  - Consider glare screens
- Key to nighttime visibility!!

## *Lighting*





## *Disability Glare*

- Glare that reduces the contrast of objects on the eye's retina to the point of invisibility.
- Specially critical for older drivers.





## *Special Devices*

- “Judicious” use of these device may be helpful
  - Rumble strips
  - Changeable message signs
  - Beacons
  - Portable signals
  - Warning lights





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## *Special Devices*

- Misuse or overuse may lessen their effectiveness





## *Remember the Keys to Improve Worker Safety*

- Training
- Worker visibility
- Temporary traffic barriers
- Speed reduction
- Additional elements

*Add common sense and a sense of responsibility!!*