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Solving the Work Zone Intrusion Problem

By Scott Schneider

National Work Zone Awareness Week, which takes place this year from April 11-15, highlights the need to protect Laborers in work zones across the U.S. and Canada.

“Public intrusions into highway work zones can cause serious injuries and fatalities to workers and motorists and also lead to large amounts of property damage,” says LIUNA General Secretary-Treasurer and LHSFNA Labor Co-Chairman Armand E. Sabitoni. “With proper work zone setup, planning, communication and foresight, these tragic incidents can be greatly reduced.”

In this case, the best way forward is to determine the root cause of past incidents and then apply the hierarchy of controls to the problems identified.

Work zone intrusions occur most often on highways that involve a mobile worksite and a lane closure. Because drivers are traveling at high speeds, they have less time and space to react to lane closures or shifting traffic patterns. A car going 70 MPH travels over 100 feet per second, so a 2-3 second delay or distraction can be fatal for the driver and harmful to workers.

Why don't drivers have time to react properly? It could be for several reasons, such as poor signage warning them about the work zone, driver impairment (e.g., drunk, distracted) or due to driver inexperience.

Given this analysis, how can we apply the concept of the hierarchy of controls to reduce the risk of work zone intrusions?

1. **Avoid single lane closures.** Since single lane closures are the most vulnerable to intrusions, they should be the least preferred option and avoided whenever possible. Instead, close the entire road or one side of a divided highway. The Federal Highway Administration supports this strategy since it is both safer for workers and proven to increase productivity. Roads can be repaired in much less time when contractors don't have to worry about traffic.



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2. **Use barriers, not barrels.** If traffic must pass by the work zone, employers should attempt to isolate workers from motorists as much as possible. The best way to do this in highway work zones is to use positive protection that puts workers behind stationary barriers (usually jersey barriers) capable of stopping an intruding vehicle. Cones and barrels provide little or no protection from intrusions and also



Which will stop a speeding car from entering the work zone and killing or injuring a Laborer?



BARRIERS NOT BARRELS

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- require slower traffic speeds that result in more delays for the public. **Using barriers can be difficult for short-term and mobile work zones, but solutions do exist, such as mobile barriers.**
3. **Control the speed of traffic.** Though not as effective as isolating workers, it's possible to give motorists more time to react to changes on the road by lowering their speed. There are numerous proven techniques, including rumble strips, signs that flash a driver's speed and employing a police presence. Rumble strips may be particularly effective since they provide immediate feedback for drivers who are distracted or drowsy.
4. **Raising awareness.** It can also help to make the public more aware of work zones and the importance of slowing down and staying alert when traveling through them. Start by using road signs to alert drivers that a work zone is ahead and consider using public information campaigns (e.g., radio traffic report, social media) to help notify drivers and let them plan accordingly. Awareness of a work zone ahead of time makes drivers more likely to slow down or choose an alternate route. Showing real-time information of the expected delay is also helpful. If drivers realize the delay will only be five or ten minutes, they may be less impatient and angry, leading them to drive more safely. Photo speed enforcement has also proven to be a successful way to slow drivers down.

With many different kinds of drivers on the road, driver behavior is inherently difficult to control. That's why the most effective way to protect workers is to separate them from drivers as much as possible. The LHSFNA's new poster (pictured above), *Work Zone Safety: Barriers, Not Barrels*, encourages employers to make use of positive protection that acts as a real barrier between workers and motorists. To order this 12x18 poster for your site, call 202-628-5465 or email lifelines@lhsfna.org.

Stationary and mobile barriers are readily available, but state transportation departments must be willing to pay for this added protection so contractors can include them when bidding the job. Too often, state DOT programs accept the lowest bid without taking worker safety into account.

“Positive protection takes time and money to set up, adding to the total cost of the job, but this is money well-spent to protect the lives of workers and the public,” says Sabitoni.

Responsible contractors know how to set up safe work zones and are willing to take the proper measures if funding is made available. Until this happens, work zone intrusions, and the deadly fatalities that result from them, will continue to plague us.

[Scott Schneider is the LHSFNA's Director of Occupational Safety and Health.]