

How to conduct an effective tool-box talk

Carrying out the training

Like all training, delivering the information effectively takes preparation and a desire to involve the workers in health and safety at the workplace. Employers may train workers to lead the training or have supervisors provide the training. Studies have shown peer-to-peer training is effective, participatory, and well-retained.

Preparing to teach the training sessions:

1. Spend about 15 minutes to become familiar with the Toolbox Talk.
2. Print a copy of a relevant Toolbox Talk and think about how the topic relates to your specific worksite.

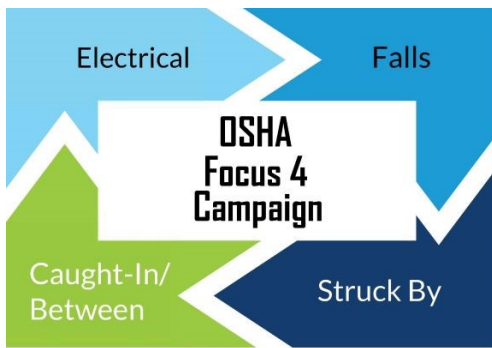
Advice for trainers

Safety meetings work best if the whole crew actively participates. This makes it more interesting and more likely that people will remember the information you've given them.

Here are some ways to encourage everyone to get involved:

- Ask questions instead of simply giving them the information. After you ask a question, wait a short time to let people think. Then, call on volunteers to answer.
- Ask about personal experiences. This can help the group see how the topic is relevant to them. You could ask: Has anyone here had personal experience in dealing with this hazard? What happened?
- Make sure everyone has a chance to talk. If a crew member is talking too much, invite someone else to speak.
- Don't fake it. If you don't know the answer to a question, don't guess. Write the question down and promise to get back to them.
- Stick to the topic. If the crew's questions and comments move too far from the topic, tell them that their concerns can be addressed later, either privately or in a future safety meeting.





TOOLBOX TALKS

Struck-by Toolbox Talk # 1

How Can We Be Safe Around Equipment?

Ask the following questions and give time for answers.

What are the hazards? Employees working around heavy equipment are exposed to pinch points, back-in-to, run-over, and back-over hazards when working in proximity to heavy equipment and construction vehicles.

What are the results? Serious bodily harm including, injuries to the head, back, extremities and internal organs. These types of struck-by incidents can result in life-changing injuries and are often fatal.

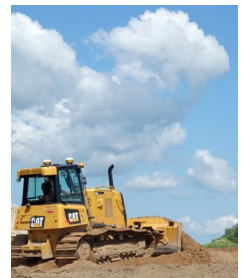
What should we look for? Blind spots, congested work areas, multiple trades working in a single work space, malfunctioning or disconnected back-up alarms, pinch-points between machinery/vehicles and fixed objects, vehicular traffic in and around work zones (road construction).

Here is an example of a recent struck-by related fatality:

Williamsport, MD: In October 2021, an employee was performing site grading activities behind a bulldozer. At some point, the bulldozer began to back up when it struck and ran over the employee, who was located in a blind spot. The employee received multiple fractures, contusions, and crush injuries to internal organs, and was pronounced dead at the scene.

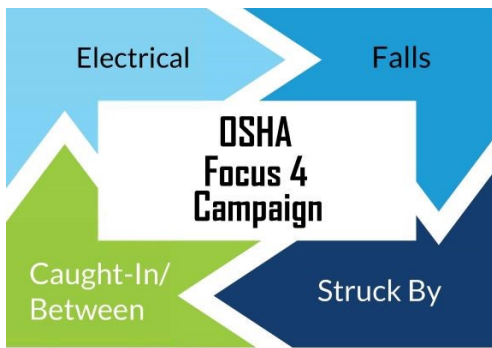
How do we prevent these incidents?

- Avoid equipment blind spots where you can go unseen by operators/drivers
- Respond to back up alarms and ensure their proper function
- Use spotters to warn operators/drivers of nearby workers and hazards
- Always determine a route of escape
- Always wear high-visibility/reflective clothing in accordance with your company's and DOT requirements



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TOOLBOX TALKS

Struck-by Toolbox Talk # 2 Struck-by Incident

Incident: In February 2020, an employee working in a trench was struck-by an excavator bucket, which was removing soil from the excavation, resulting in a numerous broken bones and contusions. The employee was severely injured and succumbed to his injuries days later.



What could have been done to prevent this incident?

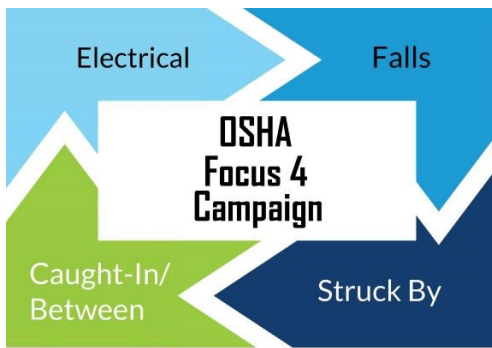
1. Before beginning trenching or excavation operations, a job hazard analysis (JHA) should be prepared and reviewed by all involved in the operation.
2. Daily huddles should be conducted every day to ensure everyone understands where and how the work is taking place.
3. Workers should be trained to stand clear of bucket work, at a distance where the bucket cannot accidentally strike the worker.
4. Operators should be trained not to move the bucket if a worker is inside the swing radius of the bucket.
5. If something changes from the plan, stop work and revise and review the plan with the workers involved.
6. Ensure workers working around heavy equipment are wearing high visibility, fluorescent outer-wear.
7. Workers should stay out of the blind spots of a machine, and in a place where they can easily make eye contact with the operator before entering the bucket swing radius.
8. All workers should be trained on working around heavy equipment.
9. All workers operating machinery should be trained on the specific machine on which they are working.
10. Consider installing a sonar detection system or object detection system on the heavy equipment.
11. Stay alert when working around heavy equipment!

Discussion: Is heavy equipment being used at this site? Have there been any near-miss or actual incidents at this site? What are we doing at this site to prevent struck-by incidents?



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TOOLBOX TALKS

Struck-by Toolbox Talk # 3

Work Zone Driving

Drive towards ZERO crashes—Your driving actions and habits can save lives, including yours!

Know the work zone signs. They are the metal plaques that inform and warn you, but there are other devices and other indicators that tell you about the work underway, mark the path you should follow, and help you navigate the work zone. Look for direction from cones, barrels, pavement markings, and other devices designed to get you safely through the work zone.

Pay attention to other drivers. It is never a good idea to ignore other drivers no matter where you're driving, but in work zones you need to be especially mindful of them. Roadway work zones are less forgiving than normal stretches of highways and streets. They often have narrower lanes and no shoulders to escape to in case you want to take evasive action.

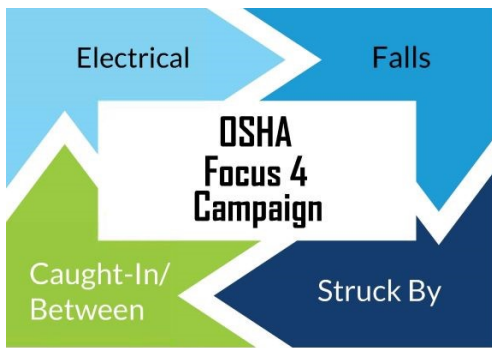
Stay focused. Avoid distractions. Losing focus on your driving is bad in any situation, but it can prove deadly in roadway work zones. Observing what the signs tell you, controlling your speed, steering carefully, and keeping an eye on other drivers—all demand your full attention. Stop eating or drinking. Put down your mobile device. Keep your focus on your driving.

Expect the unexpected. When you drive in work zones, it's always best to prepare yourself for something unexpected, such as aggressive actions by other motorists, construction vehicles that slow down to leave the roadway and pull into the work area, dump trucks that emerge from the work area and enter your lane up ahead, workers operating scant inches from your path, uneven pavement lanes, and loose gravel on the road surface to name just a few. When you anticipate problems, you are better able to react to them appropriately.

Keep your cool. Be patient. Maintain calm. Don't get rattled by work zone situations. Always make sure your speed is appropriate to the situation; that could be slower than the posted limit. Finally, don't lose your patience or your temper. If you keep your cool, you and everyone else will make it through the work zone and arrive safely at their destinations.

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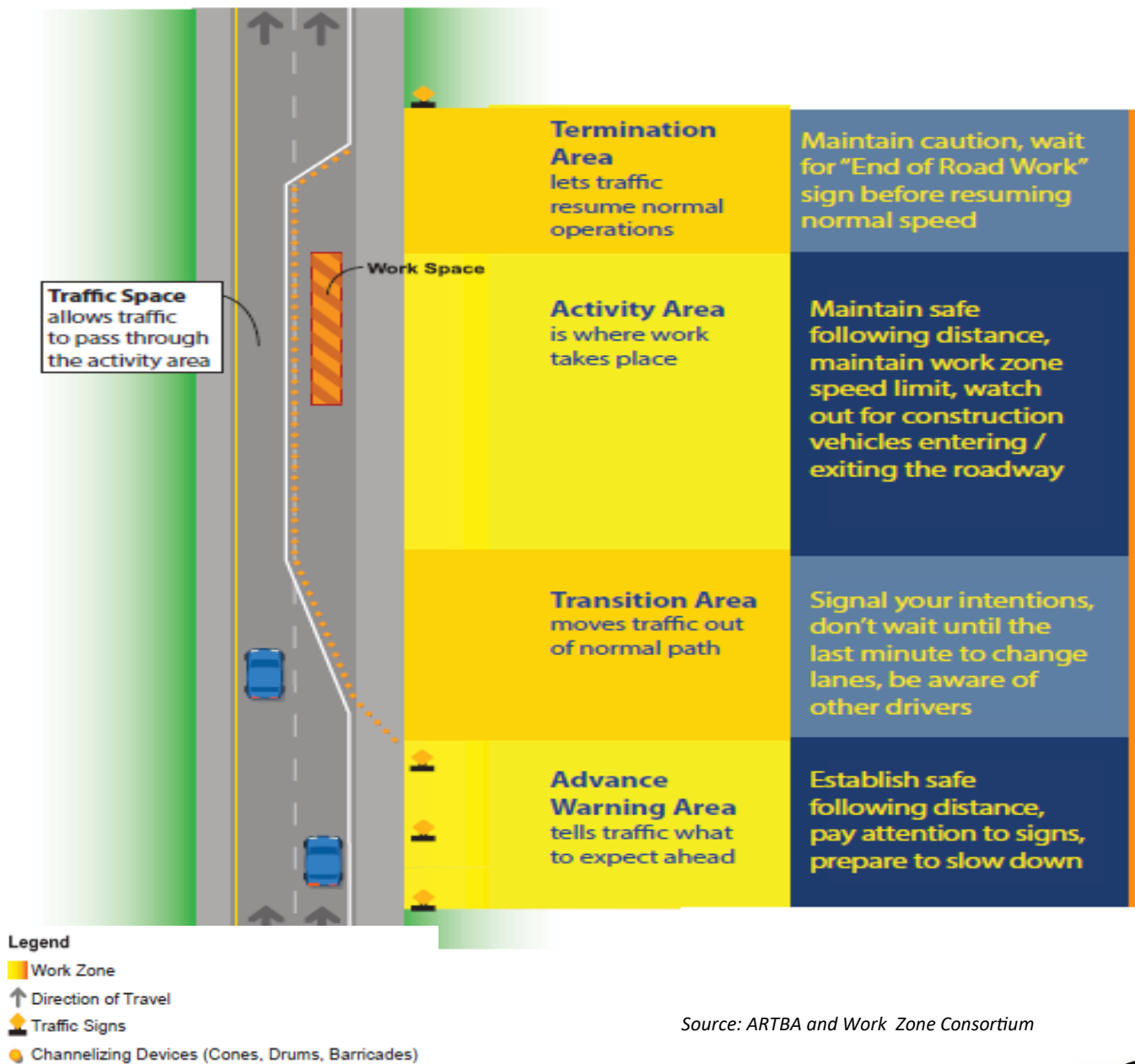
TOOLBOX TALKS

Struck-by Toolbox Talk # 3

Work Zone Driving (cont.)

Can you identify the areas of a work zone? Have you seen these areas as a worker or driver?

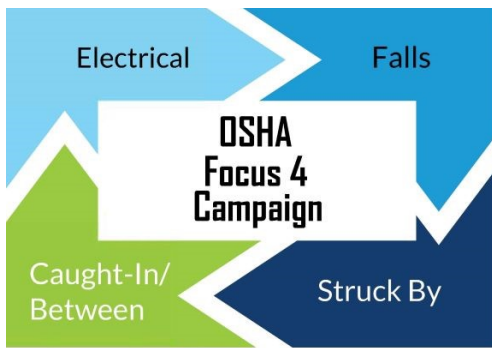
What precautions did you take when approaching the work zone?



Source: ARTBA and Work Zone Consortium

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TOOLBOX TALKS

Struck-by Toolbox Talk # 4 Equipment and Falling Objects

Being Struck by Falling Objects is a leading source of construction fatalities. Even a small object falling from a height can cause serious or fatal injuries.

Here is an Example:

Media, PA: In May 2021, a laborer was picking up debris at a construction site. A rough terrain vehicle was lifting a pile of lumber to the second floor next to him. The lumber was not secured and fell two stories from the rough terrain vehicle. Several boards struck an employee in the head. He was wearing a hard hat, but the incident left him with a concussion and other injuries.

1. What could have been done to prevent this incident?
2. Are materials regularly being lifted by heavy equipment to upper levels on your worksite?
3. If so, what do you do to protect yourself when walking through the site? What do you do to protect others?

Prevent Being Struck by Equipment or Objects

- * Loads should not be hoisted or allowed to pass over people.
- * Loads need to be secured when lifted by rough terrain vehicles, forklifts, cranes, or any sort of material mover.
- * Hard hats can help minimize injuries to the head and therefore also protect your spine.
- * Toe boards need to be placed on all scaffolding, unprotected sides or edges, and open elevations to protect workers below from falling materials such as lumber, brick, tools, debris, nuts and bolts, nails, screws, and equipment.
- * Materials should be stacked and secured appropriately and not leaning or ready to topple over.
- * Tools in elevated working areas need to be secured if close to any change in elevation. There are new and improved tool lanyards available.
- * Even when taking all of the above cautions, items can shift, winds can gust or change, workers can lose their grip, someone can accidentally kick an object, or any number of other things can happen to allow objects to become airborne and drop to lower levels. So listen and watch as you walk the site; get off the cell phone; remove the earbuds or lower the volume of the music.

Let's talk about this jobsite. Record notes and share with appropriate parties

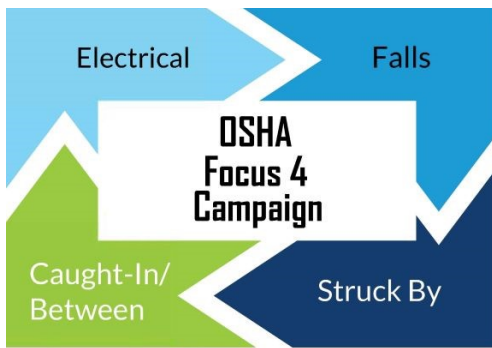
- * Are elevated loading areas or zones on this project and cordoned off to restrict entry?
- * Is there any area on this site that the Controlling Contractor should be told about to eliminate a potential falling object exposure?

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TOOLBOX TALKS

Struck-by Toolbox Talk # 5

Working Safely Around and/or Securing Loads

Ask the following questions and give time for answers.

What are the hazards of working around (suspended or moving) loads? Loads releasing onto workers from trucks or storage areas, materials dropped on workers while loading trucks or unstrapping loads

What are the results? Crushed or broken limbs, head injuries, amputations, death

What should we look for? Poorly stacked building materials, lopsided loads on trucks, loads not properly tied down, materials being lifted by cranes near work areas.

Actual Incident: A 45-year-old crane operator died while rigging a load. A tractor-trailer driver unstrapped the load to ready it for lifting. The operator climbed onto the load during rigging and it rolled off the trailer and crushed him. The tractor-trailer driver was not at a meeting earlier that day where drivers were told that their loads had to be kept strapped.

Ask the following question and ensure every item is covered.

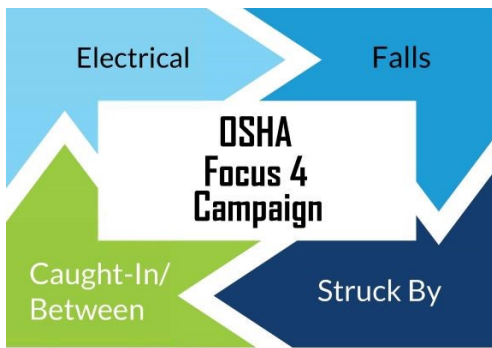
How do we prevent these results?

- * Keep workers who are not involved in loading or unloading clear of loading areas.
- * Load materials for maximum stability. Distribute weight evenly and keep materials level. Secure loads following safe and appropriate industry practices.
- * Consider having a competent person inspect incoming freight to identify those that pose serious hazards during unloading.
- * Nail 2x4 boards to the floor of cargo areas to secure equipment with wheels.
- * Make sure cargo does not restrict driver's vision, free motion, exit from the vehicle, or access to emergency supplies.
- * Stack and store materials with no more than a 4:1 height to base ratio and keep materials back from the edge.
- * Perform rigging only if you are qualified. Choose the right equipment and inspect it prior to each use. Tag and take defective rigging equipment out of service!
- * Each day before use, slings and all fastenings and attachments shall be inspected for damage or defects by a competent person designated by the employer.



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TOOLBOX TALKS

Struck-by Toolbox Talk # 6

Head Protection

The hard hat is one of the oldest, most widely used, and most important pieces of personal protective equipment (PPE) on the job. However, the hard hat cannot do its job when it is not properly worn, maintained, and replaced when needed.

Actual Incident:

Erie, PA: In June 2021, an employee was struck in the head by a falling hammer while other workers were cleaning materials from an elevated surface. The employee sustained contusions and head trauma resulting in hospitalization. The employee was not wearing any type of head protection.

[Ask the following questions.](#)

Could this incident have been avoided?

Do you work at a job that requires you to wear a hard hat?

How do you inspect your hard hat for defects which would require your employer to replace it?

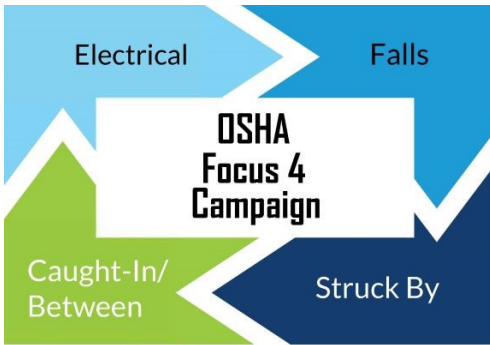
Warning and Precautions

- * Never drill holes in the hard hat shell for ventilation purposes.
- * Always wear your hardhat with the bill facing forward.
- * Always avoid contact between the hard hat and electric wires.
- * Never use a hardhat suspension that is not intended for use with a particular shell, or one that is made by a different manufacturer.
- * Never carry or wear anything inside of your hard hat between the suspension and the shell. A clearance must be maintained between the hard hat shell and the wearer's head for the protection system to work properly.
- * Ball cap or other object may limit clearance and shouldn't be worn under the hard hat.
- * Only wear products, such as winter liners or sunshades that are designed specifically to work in conjunction with hard hats. Be sure to follow the manufacturer's recommendations for use.



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TOOLBOX TALKS

Struck-by Toolbox Talk # 6 Head Protection (cont.)

Warning and Precautions (cont.)

- * Consider inspecting the hard hat daily for the following: stiffness, brittleness, fading, dullness of color, or a chalky appearance. If the shell exhibits any of these conditions or if it is obviously otherwise damaged, it should be removed from service and replaced immediately. Some hard hats need replacing after 2 years of extreme temperature exposure; others may last longer. The interior suspension should be inspected closely for cracks or tears, frayed or cut straps, loss of pliability, or other signs of wear*.

What are the hard hat practices at this site? Have you seen any modified hard hats in use?

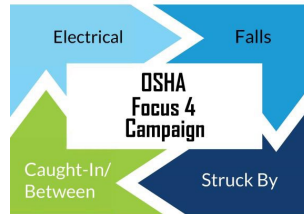
Are you checking and maintaining your hard hat in optimal condition?

*Reference: <http://elcosh.org/document/1449/d000504/taking-care-of-your-hard-hat.html>



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Project: _____

Employer: _____

Presenter: _____

Date: _____

Toolbox Talk Topic _____

Toolbox Talk Number: _____

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