



# Crushing blow

## Demolition work presents unforeseen risks

**The accident:** A subcontractor was performing demolition work inside a vacant school when a slab of concrete fell on him. A demolition robot then fell onto the concrete, pinning the worker underneath the slab from the neck down. Emergency medical personnel were called to the scene, found the worker unresponsive and pulled him from beneath the slab. Following treatment, the worker recovered from his injuries, which included a broken wrist and cracked ribs.

**The bottom line:** A post-accident investigation determined the demolition subcontractor performing the work had violated several safety requirements, including a lack of site inspection by the company's competent person and inadequate training. OSHA cited and fined the company.

Planning for a demolition job is as important as actually doing the job. An overall plan should lay out the methods used to bring the structure down, the equipment necessary and safety measures needed.

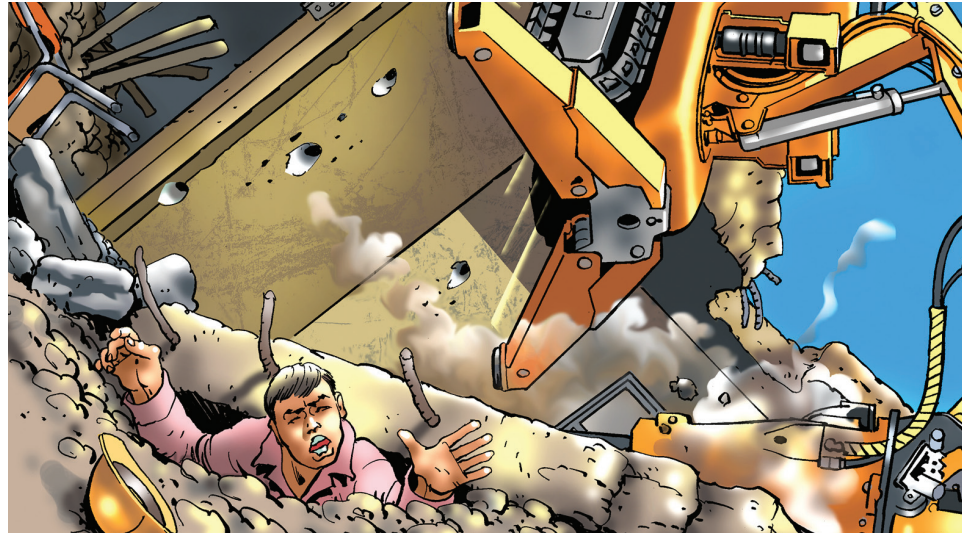


Illustration by Don Lomax

Here's a quick checklist, provided by OSHA, of some of the steps to take prior to beginning demolition work. If you're not sure if a safety precaution has been taken, ask your boss. Don't start the job until you're sure every contingency has been provided for.

- Brace or shore up the walls and floors of structures which have been damaged and which employees must enter.
- Inspect personal protective equipment (PPE) before use.
- Select, wear and use appropriate PPE for the task.
- Inspect all stairs, passageways and ladders; illuminate all stairways.
- Shut off or cap all electric, gas, water, steam, sewer and other service lines; notify appropriate utility companies.
- Guard wall openings to a height of 42 inches; cover and secure floor openings with material able to withstand the loads likely to be imposed.
- Floor openings used for material disposal must not be more than 25 percent of the total floor area.
- Use enclosed chutes with gates on the discharge end to drop demolition material to the ground or into debris containers.
- Demolition of exterior walls and floors must begin at the top of the structure and proceed downward.
- Structural or load-supporting members on any floor must not be cut or removed until all stories above that floor have been removed.
- All roof cornices or other ornamental stonework must be removed prior to pulling walls down.
- Employees must not be permitted to work where structural collapse hazards exist until they are corrected by shoring, bracing, or other effective means.

For more information on safely performing demolition work, visit OSHA's demolition page for resources and additional links:

<http://www.osha.gov/SLTC/constructiondemolition/index.html>.