

CINCINNATI HABITAT FOR HUMANITY

Construction Safety Guide

Introduction

Safety is everybody's concern and is always an important consideration at any construction site. Building construction can be one of the most dangerous occupations. Since Habitat work crews normally have a high proportion of inexperienced people, everyone must pay particular attention to safety. Try to be conscious of the safety of others as well as yourself. An observer can often see danger better than the worker involved in the project. Be cautious at all times and if you have any questions, please ask your Supervisor. Do not go ahead with a task if you are uncertain as to how it is done or if you are unable to do it.

Safety is based on knowledge, skill and an attitude of care and concern. Supervisors should instruct each worker about the correct and proper procedures for performing each task and familiarize the worker with the potential hazards of doing the tasks and how such hazards can be minimized or eliminated. It is very important that we at Habitat know about safe work practices and follow them.

Guidelines for a Safe Attitude

- Think before you do your work or task
- If you are uncertain about how to do a task or how to operate a power tool **ask a Supervisor**
- Concentrate on your task and eliminate distractions
- Know where the first aid kit is located and how to get emergency help
- Inspect all power tools, hand tools, ladders and scaffolding on a daily basis
- Advise your Supervisor **immediately** of any unsafe condition or hazard

Clean Work Site

A clean work place is a safe work place. This refers to the neatness and good order of the construction site. Maintaining good housekeeping contributes to the efficiency of the worker and is important in preventing accidents.

Position building materials and supplies in carefully laid out piles to allow adequate aisles and walkways. Clean up all rubbish and scrap materials on a daily basis. Do not permit blocks of wood, nails, bolts, empty cans, pipe, wire or other materials to accumulate on the work site. They interfere with work and can constitute a hazard. Keep tools and equipment that are not being used in chests, panels or tool boxes. This protects the tools and the workers. **Never leave a work site unguarded unless all tools and materials have been properly secured.**

Emergency Medical Care

If someone is injured on the job, contact your Supervisor immediately and summon any needed medical help. You should also use the supplies located in the first aid kit to stabilize the injury as much as possible until medical help arrives.

Hand Tools

Always select the correct type and size of tool for your work and be sure it is sharp and properly adjusted. Guard against using any tool if the handle is loose or in poor condition. Dull tools are hazardous to use because excessive force must be used to make them cut. Oil or dirt on a tool may cause it to slip and cause an injury. When using tools, hold them correctly. Most edge tools should be held in both hands with the cutting action away from yourself. Avoid using your hand or fingers as a guide to start a cut, but if it is necessary, use extreme caution.

Handle and carry tools with care. Keep edged and pointed tools turned downward. Carry only a few tools at one time unless they are mounted in a special holder or carried in a tool belt. Anyone working with a hammer at a height should wear a hammer loop or tool belt, and when not in use, the hammer should be kept in the loop or belt and not placed on a sloping surface or other precarious position. Do not carry sharp tools in your pockets. When not in use, tools should be kept in special boxes, chests or cabinets.

Ladders

Inspect a ladder before you use it. If the ladder is unsafe, don't use it. Look for wear and tear, loose rungs and defects.

Use a ladder that will reach the work. An extension ladder should reach three feet above the work level. Move your ladder with your work. If, while you are working, both of your shoulders are extended outside the ladder, you are reaching too far. When using an extension ladder, use the "four-to-one" rule: For every four feet of height, move the bottom of the ladder one foot away from the wall.

Place your ladder on solid footing. If there is a danger of the ladder moving while you work, tie it down. If there is a danger that the ladder will be hit, barricade it.

Never use an aluminum ladder in the vicinity of electrical lines.

Carry tools and materials in proper carrying devices and keep your hands free for climbing. When climbing, always face the ladder.

Buckets will not be permitted to be used as ladders.

Poisons and Toxic Substances

The poisons and toxic substances that can be found most often on a work site are asbestos, lead oxides, concrete, animal feces and solvents. Special care must be taken when you come in contact with any of these substances or any unfamiliar substance.

If you discover asbestos fiber being used as pipe, boiler or heating duct insulation, contact your Supervisor immediately. DO NOT ATTEMPT TO REMOVE THE ASBESTOS FIBER ON YOUR OWN.

Scraping exterior wood work, demolishing lead painted walls and stripping old mill work are the principal ways that workers can be exposed to lead chips, dust and particles. Contact your Supervisor immediately if you discover any lead painted surfaces.

Masks are the best protection against breathing germs that can be borne in dust containing animal feces.

Power Tools and Other Electrical Equipment

A power tool should not be used without proper instruction on its use and on what can happen if the tool is not used properly. The instruction should be done by a qualified person and should be given to all workers, even experienced do-it-yourselfers. The trainee should use the power tool in the presence of the instructor until the instructor is satisfied that the trainee knows how to use the power tool properly.

Never lower or carry a power tool by its cord. Clean tools daily. Power tools should be checked for defective switches, cords, plugs and proper grounding. Defective tools should not be used and should be given to a Supervisor. (Do not wait until the end of the day.)

To avoid electrical shock, the following rules must be obeyed:

- A three-pronged plug must be used on all electric power tools
- Extension cords must not have frayed insulation or be fastened with staples, hung from nails or suspended from wires
- All temporary lights must be equipped with non-conductive guards

Proper Safety Equipment

Proper clothing is as essential to safety as the proper selection and use of tools. Wear clothes and gloves that are appropriate for the work and weather conditions. Loose clothing is dangerous around power tools.

Workers are strongly encouraged to wear work boots at all times when on a construction site. Any worker wearing sandals or other types of inappropriate footwear shall not be permitted to remain at a construction site.

Hard hats are to be worn while doing demolition work or during the framing phase of construction, overhead work or when required by a Supervisor and are to be made available to workers on each job site at all times.

Protective glasses will be issued as needed to every construction worker. A worker must wear protective glasses any time he or she is operating a power tool or when instructed by a Supervisor.

Each worker must wear a dust mask when installing insulation, sanding or when instructed by a Supervisor.

Ear plugs must be worn when using a power tool for a prolonged period of time or when instructed by a Supervisor. Ear plugs are to be made available to workers on each job site at all times.

Saws

- Don't bind the blade of any saw. When cutting long panels, the blade may bind and the saw mill will catch and kick back toward the operator. Find someone to assist you if binding is a problem.
- Keep the blade guard working. A spring-actuated blade guard often can become bent and won't slide quickly; or the spring can become stretched so the return is slow. Repair any damage to the guard as soon as it happens, and never tie the guard back out of the way.
- Support what you are working on properly. Never attempt to cut something that could tilt or fall and cause the saw to slip.

Scaffolding

All scaffolding that is elevated 10 feet or more must be equipped with a safety railing. All scaffolds must be equipped with a toe board to eliminate the possibility that tools or debris will be kicked or pushed on people below. A scaffold must be designed to support four times the weight of the workers and the materials resting on it. Scaffolding components that are not designed to be compatible should not be mixed.

Inspect all scaffolding each day before using it. **Never use damaged or defective equipment, and avoid rusted parts since their strength is unknown.** When erecting scaffolding, provide adequate sills for the scaffold posts and use base plates. Use adjusting screws, not blocks, when on an uneven grade. Make sure you plumb and level scaffolding, and do not force cross braces when constructing the scaffolding.

Many scaffolding accidents are caused by defective planking. Use only properly graded and inspected lumber for planking. Inspect planking daily for splits and knots, and remove defective or damaged planking. Walk boards could be used.