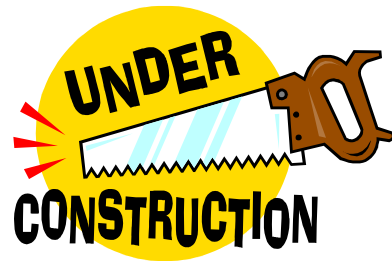


MANITOWOC COUNTY
HABITAT FOR
HUMANITY



SAFETY
MANUAL

WORK CREW SAFETY MANUAL – 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 ask questions. Do not go ahead with a task if you are uncertain 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. This should familiarize the worker with the potential hazards of doing the tasks and advise him or her as to 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

1. THINK before you do your work or task.
2. If you are uncertain about how to do a task or how to operate a power tool—ASK A SUPERVISOR.
3. Concentrate on your task and eliminate distractions.
4. Know where the first-aid kit is located and how to get emergency help.
5. Inspect all power tools, hand tools, ladders and scaffolding on a daily basis.
6. Advise your supervisor IMMEDIATELY of any unsafe or hazardous tool or condition.

MISSION OF THIS MANUAL

- To create safety awareness and a safe working environment for all Habitat volunteers and staff.
- Home construction can be a hazardous activity. It is expected that the Manitowoc County Habitat for Humanity construction process will be completed without any accidents.

The steps needed to create safety awareness and a safe working environment are:

- Communicate the previous year's safety record in accidents and near misses per house built
- Communicate the current year's record of accidents and near misses per house built
- Briefly discuss recent safety incidents
- Set and communicate expectations:
 - Work without any accidents or near misses
 - Follow the guidelines and rules
 - Everyone is responsible for the safety of fellow workers
- Site leaders and crew leaders play a key role in creating safety consciousness
- Crew leaders need to explain the safety guidelines for the specific task to be performed
- Crew leaders need to demonstrate safe usage of the tools that will be used and audit the crew's performance
- All accidents and near misses need to be reported to the site leader, crew leader, or site support volunteer
- An accident investigation and report needs to be completed on all accidents and near misses, including a recommendation on how similar accidents can be prevented in the future

- All volunteers and staff will have signed a ***Release and Waiver of Liability Form*** and ***Parental Authorization Form*** (where applicable) prior to working. Forms will be available on site. Completed forms will be delivered to Habitat office for filing.

Group Guidelines:

(For house sponsors & outside groups that volunteer on Habitat worksites):

- Each work group should appoint a safety officer
- Prior to participating in a build, each group must review the expectations, rules, and guidelines
- All participating group members will have signed a ***Release and Waiver of Liability Form*** and ***Parental Authorization Form*** (where applicable) prior to working. Forms will be available on site or sent to groups in advance of scheduled on site work. Completed forms will be delivered to Habitat office for filing.

TRAINING (volunteers, staff, homebuyers)

- Volunteers, staff and homebuyers will be asked to read the safety manual
- Site Leader will explain at the beginning of the work day all tasks to be performed on that day
- A “how-to” session will be conducted for those without the appropriate knowledge of safety on construction sites
- Site Leader/Crew leaders will explain the safety guidelines for the specific task to be performed
- Site Leader/Crew leaders will demonstrate safe usage of the tools that will be used and audit the crew’s performance
- Individual one-on-one on site instruction will be given as needed
- Experienced volunteers will pair up with new inexperienced volunteers
- First aid/CPR training will be provided to site leaders/staff/board
- Age restrictions on Habitat for Humanity construction sites:
 - 18 years old and over: no restrictions
 - 16-17 years old: Requires parental (guardian) permission. May do general construction work but not demolition, excavation, and they may not use power tools, or work at heights above six (6) feet, or on the roof. Supervision requires a 3:1 ratio of youths to adult supervision (or less)
 - 14-15 years old: Can not be on-site when construction is going on. May work during periods of painting or landscaping. Requires a 1:1 youth to adult supervisor ratio. Parental (guardian) permission is required.
 - Under 14 years old: Persons under 14 years of age are not permitted on Habitat for Humanity worksites

SOURCES OF POSSIBLE ACCIDENTS AND RULES FOR AVOIDING THEM

Lifting/carrying:

- Lift with legs, bend knees and keep a straight back
- Have the appropriate number of people to lift/carry an object
- Do not lift more than you can handle alone, have a partner help if needed
- When carrying an object, watch for others to avoid hitting them
- Watch for tripping hazards

Clutter/tripping hazards:

- Tools:
 - Keep tools close to your work area
 - When a tool is no longer being used, place in central area, out of traffic pattern
 - Carry tools with the sharp edge down
- Electric cords/air hoses:
 - Use proper length of cord, excess cord becomes a tripping hazard
 - Avoid "spaghetti" look of cords/ hoses on the floor
 - Try to place the cords or hoses out of main traffic flow walkways
- Keep the floor clear of clutter
- Building materials:
 - Discarded material should not be left lying around (2x4's, nails, roofing, foam, etc.)
 - Keep all walkways clear of trash/debris
 - When done with project **CLEAN UP** area
 - **Pick up/straighten up** site at the end of each day (i.e. tools, scrap materials, etc.)
 - Clean up spills when they occur
 - Stack building materials in a safe manner
 - Stack materials out of main traffic flow areas
 - Remove all nails from boards that will not be used again or are scrap
- Uneven ground around site:
 - Fill holes and/or ruts as needed

Proper attire:

- No sandals or open-toed shoes may be worn on site, boots are recommended
- Wear a shirt at all times
- Long pants are preferred, shorts may be worn depending on job to be performed, (i.e. yard work, painting)
- Do not wear dangly jewelry
- Do not wear loose clothing when operating power tools

Personal Protective Equipment:

- Wear a hard hat when appropriate, or when directed by a leader/supervisor
- Wear goggles or safety glasses when operating any type of power nailer or saw (table saw, roto-zip, skill saw, etc) to prevent dust, debris, or flying objects from entering eye
- Wear gloves when installing insulation, carrying building materials etc.
- Long sleeved shirt must be worn when installing insulation.
- Wear dust mask when installing insulation, using roto-zip, sanding drywall or when someone is sweeping causing heavy air borne dust
- Ear plugs or ear covers should be used when operating table saws, pneumatic nailers, roto-zips, etc in a confined area

Ladders:

- Use ladders for the purposes for which they were designed. Do not use ladders for skids, braces or workbenches, etc.
- Provide a stairway or ladder for any point of access where there is a break in elevation of 19 inches or more
- Make sure ladder size meets job demands
- Do not use step ladders as straight ladders, always open all four feet and lock spreaders in place on a step ladder and place in a level condition
- Use proper angles when using straight and extension ladders. When using a non-self-supporting ladder use the "four-to-one" rule: for every four feet of height, move the bottom of the ladder one foot from the wall
- Secure straight and extension ladders by tying off the top or securing the base
- Top of extension ladders must extend a minimum of three feet beyond the supporting object when used as an access to an elevated work area
- Before climbing extension ladders, make sure latches are properly engaged
- Extension ladders must be overlapped a minimum of three rungs
- Keep body near the middle of the ladder. Avoid leaning off the edge of a ladder. Move the ladder frequently so as not to be tempted to lean too far.
- Do not step on the top rung or platform on a step ladder
- Do not carry anything that will prevent holding on with both hands while ascending or descending the ladder. Use a tool belt, bucket or a tool bag to lift tools
- Only one person on a ladder at a time
- If it becomes necessary to place a ladder in or over a doorway, barricade the door
- Do not use metal ladders on job site. Fiberglass or wood are the only acceptable ladders, because of conductivity of electricity with metal
- When climbing, always face the ladder
- 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. If the feet of the ladder are not level, dig the ground out under one foot with the claw of a hammer rather than raising one foot with blocks

Falling objects:

- Avoid tools or personnel sliding off of the roof, install a cleate (a 2x4 or 2x6 nailed to the roof which will act as a stop if a tool or volunteer slips)
- Never leaving tools on top of ladder when moving it
- Do not leave tools or other objects on ceiling rafters
- When raising and placing walls, secure immediately
- When leaning objects, ensure the angle is sufficient to prevent tipping over

Using wrong or poorly maintained tools:

- Use tool for the intended purpose
- Use proper tool for the job being performed
- All cutting tools should be kept sharp. If not, do not use it! Replace and give dull saw blades to site supervisor to be sharpened
- If a tool is broken, or in poor working condition, take it to the site supervisor and do not use it. An orange **DO NOT USE** tag should be attached and the tool should be placed in the bin for tools needing repairs

Lack of training:

- Power tools should not be operated by anyone without proper instruction. (do not assume a person knows how to use the tool just because they say so, audit his performance until you are satisfied the operator is competent)
- No person under the age of 18 may operate any power tools

Roofing:

- Take precautions when climbing onto or off the roof (this is where many roof related falls occur)
- When roofing, wear shoes with a soft sole with tread
- Loose materials and sawdust should be removed frequently from the roof surfaces
- Never work on a roof alone
- Tie off the top of ladders that are used for accessing the roof

Guards and safety interlocks:

- All guards and safety locks should be kept in good working order or the piece of equipment should be taken out of service until repaired, attach a **DO NOT USE** tag
- Any guards or safety lock provided by the mfg. **MUST NOT** be removed and kept in working order

Automatic nailers:

- Goggles must be worn when using autonailers
- Do not point nailers at people
- When clearing a jam, take the battery out
- When holding an object to be nailed, keep hands at least 4" away from nailer
- Do not stand directly in front of nailer
- Do not carry the tool with finger on the trigger

Electrical:

- When working on an electric wire, check to be sure power is off or the plug has been pulled
- Do not use frayed or worn electrical cords (keep in good repair)
- Maintain all electrical tools in safe condition and check regularly for defects
- Avoid running electrical cords thru puddles of water
- Do not use a ladder within 10 feet of a power line
- Care should be taken to use the appropriate length cord to avoid the excess cord from creating a tripping hazard.
- Try to place cords out of traffic areas where it can cause a tripping hazard. (tape cord to floor, hang on nail or wall, if possible)
- Do not use plug if ground prong is broken or cut off. Give cord to Site Supervisor for repair or replacement
- Never carry power tool by the cord

Saws:

- Use eye protection when operating power saws
- Use ear protection when operating power saws
- Use of a dust mask is optional
- Ensure the blade is sharp and is correct for the saw being used
- Use the blade guard that was provided by manufacture of the saw
- Technique for operating table saws:
 - Stand to the side of the saw vs. behind the blade and material being cut
 - Always push material being cut between the blade and the fence
 - Use a push stick if distance between the blade and fence is 4" or less (push stick is used between blade and fence)
 - Never use the miter guide and the fence at the same time
 - The chop saw or skill saw is preferred when making a cross cut. If table saw must be used, use the miter guide
 - Keep amount of blade exposed thru piece being cut to a minimum
 - Have two people to cut sheet material
- Technique for operating skill saw:
 - Support material properly
 - Keep cord clear of saw
 - Ensure objects beneath material being cut is clear of path of the saw blade
 - Use combination blade for skill saw
 - Use ear and eye protection
 - Use minimum blade depth
 - Do not over-extend your reach
- Technique for operating chop saw:
 - Start saw before setting blade to the piece being cut
 - Pull saw out, lower with blade running, and cut pushing back in
 - Do not cut a piece of wood less than 4" in length
 - Keep hands clear of blade
- Technique for operating all saws:
 - Use both hands
 - Use proper length and type of blade
 - Ensure blade is sharp
 - Make sure the blind side of object being cut is clear of people, objects, etc
 - Make sure material being cut is properly supported
- Technique for operating roto-zip:
 - Be sure collar is on the saw and set to proper depth
 - Ensure blade is sharp (if not, replace)
 - Use dust mask and eye protection (ear plugs are optional)
- Technique for operating jig/saber saw:
 - Ensure blade is sharp

Box Cutters:

- Wear gloves
- Cut away from your body, never cut towards yourself
- Do not use a dull blade, change blade if cutting edge is dull
- Keep your mind on your work
- Always close the cutter or retract the blade when finished

- Do not carry box cutters in your pocket or aprons, unless the blades are securely covered or completely retracted
- Do not use blade as a screwdriver, can opener, or as a pry bar
- Only use retractable and other safety cutters, these cutters are generally safer than fixed blade cutters

Air Compressor, Lines, Air Operated Guns:

CAUTION: Compressors generate 80 to 90 PSI pressure throughout the system Treat with CAUTION!

- Guns and hoses should only be connected BEFORE the compressor is started
- Guns and hoses should only be disconnected after the compressor is shut off and the air BLEED off
- DO NOT connect or disconnect components while the system is charged
- DO NOT depress the trigger on the gun unless the gun is pressed against a wooden surface
- Gun jams should not be cleared while the system is under pressure, disconnect from air supply or unplug from electrical source

Wall Board Lift:

- Check lift to ensure proper assembly and in good working order before attempting to operate
- Check cable to ensure it is not frayed or worn
- Ensure frame is perpendicular to ground
- Ensure tripod pin is locked in open position
- Load 1 piece of board at a time with arms extended
- Position lift before raising and tilting the board
- Control the descent of the lift with the winch handle, releasing the brake will result in a rapid descent of the lift

Other General Precautions:

- Try to avoid distractions when you are performing a task---FOCUS
- Avoid horseplay, practical jokes, or other activities that may create a distraction/accident
- Try to anticipate pinch points and keep hands clear
- When you hurry, your chances of an accident increase
- Always look before you step, you may end up off the roof or in the basement and in the hospital
- Always keep open accesses covered to avoid someone falling thru

MEDICAL AND EMERGENCY RESPONSE (ON-SITE)

Chain of Command

- Site leader/crew leader will assess the situation and determine whether an emergency exists that requires activating emergency procedures

- Site leader/crew leader will direct all efforts in construction area including evacuation if necessary
- Site leader/crew leader will ensure that outside emergency services (i.e. medical aid, local fire departments, utility companies) are called in when necessary
- Site leader/crew leader will direct the shut down of site operations when necessary.
- Site leader and at least one other person should be adequately trained in First Aid/CPR

Communication

- Site leader/crew leader will have a means of communication and obtaining information while at work site (i.e. cell phone, battery powered radio)
- A list of all emergency numbers will be posted at the site and provided to the site leader/crew leader
- Site leader will notify executive director and chairman of the board of any medical or emergency response
- Site leader will complete an accident investigation and submit a report with recommendations on how similar accidents can be prevented

Accounting for Volunteers

- Site leader/volunteer coordinator will be responsible for obtaining the names and phone numbers of all volunteers. Release and Waiver of Liability will be signed by each volunteer and filed.
- Site leader will notify executive director, chairman and emergency services when all persons have been accounted for and if any persons believed missing

In the event of Tornado or Inclement Weather

- Site leader/crew leader will be aware of current weather conditions in area and tornado formations
- If a tornado is sighted or the community warning system has been activated, site leader/crew leader will instruct all volunteers to go into the basement area of the house or an interior area of the house with no windows.
- If the tornado is distant, the site leader/crew leader will watch the tornado closely for a few seconds. If the tornado is moving to the right or left, then it is not moving toward the area. The site leader/crew leader will instruct volunteers to escape at right angles to the tornado's track: to the right if it is moving to the left and vice versa. If the tornado appears to stay in the same place, growing larger or getting closer and not moving right or left, it is headed right toward the area. Immediate shelter should be sought.
- If there is no shelter at the site, site leader/crew leader will instruct volunteers to either go to the closest shelter in the area (neighbors home, business) or lie down in a low area with their hands covering the back of their head and neck
- In the aftermath of a tornado, site leader/crew leader will assess situation, any injuries and contact emergency services if needed.
- If there is inclement weather, site leader/crew leader will assess working conditions and if need be stop all work and reschedule for another time.

In the event of bodily injury/illness

- Site leader/other medically trained person will assess the injury/illness.
- If the injury/illness is minor (i.e. small cut, abrasion, scrape) the injury will be treated on site using the first aid kit designed for emergency use.

- If the injury/illness requires that the volunteer who is conscious seek professional help, (i.e. possible broken bones, cut needing stitches) the site leader/other medically trained person will assess whether the volunteer can be transported to a local hospital or if an ambulance is needed.
- If the injury/illness is serious, (i.e. falling from roof, possible heart attack) the site leader/other medically trained person will contact the police and emergency services immediately and will remain on the line until the police and emergency services arrive. The victim will be kept quiet and will not be moved, vital signs of the victim will be monitored. If the victim falls unconscious or stops breathing, CPR will be performed until emergency services arrive.
- All volunteers will stop working and the area in which the injury occurred will be roped off.

In the event of toxic gases, chemical spills, fires, explosions

- The site will be equipped with a working fire extinguisher to be used for any small contained fire
- Site leader/crew leader will immediately contact emergency services in the event of toxic gases, chemical spills, large uncontrollable fires and explosions
- If the eyes or body of a volunteer has been exposed to injurious corrosive materials, eye washes or suitable equipment for quick drenching or flushing can be used for immediate emergency use.

Blood-born pathogens:

- All cuts or wounds should be cleaned and bandaged immediately
- An incident report must be filled out at the time of the incident
- Blood on any surface such as tools, drywall, studs, decking, etc must be flushed with chlorine bleach and wiped off immediately
- Disposable gloves should be worn when blood is involved to avoid contact

Accident Reporting

- All injuries / accidents will be immediately reported to the site supervisor.
- If the injury / accident requires needed medical help/ EMT/ambulance, the site supervisor will contact emergency services. The site supervisor is trained in first aid and will make use of medical supplies located in the first aid kit to stabilize the injury as much as possible until medical help arrives.
- The site supervisor will contact the Habitat office to report the accident as quickly as possible.
- Both the site supervisor and injured party (depending on medical condition of injured party) will fill out separate accident report forms as soon as possible after the occurrence of the accident. The site supervisor will deliver the completed forms to the Habitat office.
- Based on the information in the report and medical conditions of the injured party, (i.e., were emergency services dispatched?, did the injury require stitches?, did the injury require hospitalization or hospital emergency services?) the Executive Director / Chairman of the Board will contact the insurance company, inform them of the accident and find out what procedures are required by the insurance company.
- The Executive Director / Chairman of the Board will notify the HFHI Affiliate Support Manager of the injury / accident. Copies of the signed *Release and Waiver of Liability*

Form, Parental Authorization Form (if applicable), and accident report forms will be sent to the support manager.

ACCIDENT REPORT FORM

Information of Person filling out form if other than Injured Party

Name: _____ Date of Birth: _____

Address: _____

City: _____ State: _____ Zip: _____

Position: Volunteer Staff

Information of Injured Party

Name: _____ Date of Birth _____

Address: _____

City: _____ State: _____ Zip: _____

Position: Volunteer Staff

Information: Injury / Accident

Date of Injury: _____ Time of Injury _____

Place of
Injury: _____

Who was present at the time of injury / accident?

How did the injury occur? Describe the injury in detail.

Was first aid administered at the time of the injury? If so, describe.

Was professional medical treatment sought? If so, give name and address of treating practitioner/hospital. Describe treatment.

Printed
Name _____
Signature _____
Date _____

**MANITOWOC COUNTY HABITAT FOR HUMANITY
502 N 8TH STREET, PO BOX 631, MANITOWOC, WISCONSIN, 54221-0631, 920-683-8466**

Daily Site Schedule

- 7:15 A.M.** Arrive at the job site. Discuss the day’s activities with crew leaders. Assign crews.
- Crew leaders should be on site between 7:15-7:30 AM so the site supervisor can discuss the days schedule with them and assign tasks and work crews.
 - This is a good time to walk the site and talk before the other volunteers arrive.
 - The volunteer host must be there early to set up the registration table and to convey any last minute changes to volunteer numbers.

- There is nothing worse than turning up late and starting work straight away without anything organized.
- Being a crew leader is a big commitment.

- 7:30 A.M.** Crew leaders get out their tools and materials
- Once the tasks and crews have been assigned, get all the tools and materials out that you will need for the day.
 - Set everything up so that as soon as devotions are over you can take your crew to the task you are leading for the day.
- 8:00 A.M.** Volunteer Orientation, safety talk and prayer
- Tell volunteers that work starts at 8 a.m. It is very disrupting to crew leaders if they have to constantly explain the job each time someone new arrives.
 - Once most of the volunteers have turned up, start the morning's orientation, safety talk and devotions.
 - The orientation should include introductions of the partner family members, any sponsor groups and special volunteers, explain what the schedule will be for the day and what you hope to accomplish.
 - The safety talk is outlined in the Safety Manual.
 - The devotions may include a reading or a story, ending in prayer.
- 8:15 A.M.** Start Work
- The volunteers should know whom they will be working with and what they will be doing.
 - Crew leaders take their volunteers to their specific task.
- NOON** Lunch with a 30-minute or 1-hour break
- Provide a shady place for people to congregate.
 - If the affiliate is providing lunch, make sure it is ready early so people are not standing around waiting for it.
 - Discourage volunteers from leaving the site for lunch. They may not return for the afternoon!
- 4:00 PM** Clean up, put tools away and dismiss for the day
- Crews are responsible for putting their tools and materials away.
 - The site supervisor is responsible for making sure all the tools are locked away safely and all the materials are away. Make sure the site is tidy and the houses are secure.

CREW SAFETY TALK

Pre-Meeting: Volunteers must Sign-In and pick up a name tag

Welcome by Habitat for Humanity Official

Introduction of Safety Officer, Construction Supervisor, and Crew Leaders

Overview of the project and the Thrivent / Habitat Partnership

Overview of the tasks to be completed on this construction / activity day

Review of Basic Safety Guidelines:

- Safety equipment – hard hats, eye protection, ear protection, foot wear, general clothing requirements
- Review of power tool requirements and overview of their use
- Discuss care in lifting heavy objects
- Review cautions for working in high places

Review workday logistics: schedule, toilet facilities, lunch arrangements, location of materials, and quitting time

First Aid resources and injury reporting requirements:

- Identify the certified First Aid / CPR person
- Identify the location of the First Aid Kit
- Identify where the emergency cell phone can be found
- All injuries must be recorded and reported to HFH

Prayer for the day

Let's Go To Work!

2005 - (Portions of this manual have been adapted from the Greater Fox Cities Habitat for Humanity Safety Manual 2004)

2006 – Revised (Portions of this manual have been adapted from the Wausau Habitat for Humanity Affiliate Safety Manual 2006)