

TRADES GUIDELINES – PLUMBING & HEATING

It must be pointed out that every company or sub-contractor on the residential site is classified as an “employer” under the WSH Act – and have the same legal duties and responsibilities. In a nutshell, employers must ensure the safety and health of their workers and ensure that their actions (or lack of action) do not cause anyone else harm.

By law, each employer must abide by the WSH Act, Regulations. Systems should be in place to:

- Share required information necessary to Identify; Communicate and Control hazards
- Ensure workers are supervised by a competent person (knowledge, training or experience)
- Ensure workers are competent to perform the tasks assigned (instruction and training)
- Ensure tools and equipment are maintained properly
- Ensure PPE is provided and worn.

Further, each Employer is responsible to ensure plans are in place and their workers are aware of the following minimum emergency procedures:

- Providing first aid to the injured
- Providing transportation to medical aid for the injured
- Conducting initial attack fire fighting; and
- Promptly contacting outside agencies for assistance.

You should ensure Site Orientations are conducted and information is posted on site to cover the above, along with any other site specific hazards and controls – PPE Requirements; Communication Device; Emergency Phone Numbers; Muster Point; First Aid Kit; MSDS Sheets; Safe Work Practices.

MAIN HAZARDS: The main hazards associated with Plumbing & Heating Rough-in include: Slips and Trips; Falls; Knee and Back Injury; Struck by Objects (injuries to Eyes and Hands); Cuts and Burns - Fire.

PLUMBING & HEATING ROUGH-IN – SAFE WORK PRACTICES

- Workers must be wearing the proper Personal Protective Equipment (PPE) such as a hardhat, safety footwear, safety eyewear, hearing protection, and fall protection as required.
- Clean up and pick up after yourself as you go; good housekeeping practices on the job site must be maintained. If bins are supplied – use them. If no bins, have piles designated for waste.
- Before bringing materials into the house make sure stairs or access ramps are provided into the house and to all levels you will be working.
- Do not modify or alter tools and do not use a tool for anything other than its intended purpose.
- If using a generator, place outside to keep exhaust from building up inside the house and to reduce noise levels.
- Wear knee pads for work on or near the floor. Rotate work position often to reduce strain on your knees and back (kneeling; squatting; standing etc.).
- Fall protection is required above 10 feet (Guardrails; Fall Restraint or Fall Arrest).
- When possible, coordinate with other trades to erect and share work platforms.
- Ladders must be inspected prior to use and secured from movement (tie off or have workmate hold). Get rid of old ladders that are covered in glue that you can not inspect them properly.
- Avoid over-reaching while on a ladder – move the ladder to a better position.
- Ensure ladder or step ladder are tall enough to do the job. Never stand on the top two rungs.

POLYETHYLENE WATERLINES ROUGH-IN – ADDITIONAL SAFE WORK PRACTICES

- Workers must receive WHMIS training and MSDS's (Material Safety Data Sheet) must be on site.
- Refer to MSDS sheets for the safe handling requirements and appropriate personal protective equipment when cutting/using glue or solvents to install ABS; PVC or other piping.
- Always remember to wash your hands after using glue or solvents before eating or smoking.
- Keep all cutting tools sharp and use the right tool for the job.
- Ensure tools are in safe working order. Attach a “do not use” tag to damaged tools and notify your foreman.
- Only use extension cords that have ground pins and are free of cracks, cuts or burn marks.
- Clean up and pick up after yourself as you go; good housekeeping practices on the job site must be maintained. If bins are supplied – use them. If no bins, have piles designated for waste.

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COPPER WATERLINES ROUGH-IN – ADDITIONAL SAFE WORK PRACTICES

- Workers must receive WHMIS training and MSDS's (Material Safety Data Sheet) must be on site.
- Refer to MSDS sheets for the safe handling requirements and appropriate personal protective equipment for the materials used in soldering.
- Fire extinguisher must be readily available whenever soldering.
- When possible, use low-lead cadmium-free solder. Never breathe-in the soldering plume and ensure adequate ventilation by opening doors/windows or using fans.
- Always remember to wash your hands after using solder or solder paste before eating or smoking.
- Never store acetylene or propane tanks inside a van or car – secure upright in a cool and well ventilated area.
- Inspect all hoses and fittings for damage and test for leaks with a soapy solution.
- Keep pipe cutters and all cutting tools sharp. Use the right tool for the job.
- Ensure tools are in safe working order. Attach a “do not use” tag to damaged tools and notify your foreman.
- Clean up and pick up after yourself as you go; good housekeeping practices on the job site must be maintained. If bins are supplied – use them. If no bins, have piles designated for waste.

HVAC – SAFE WORK PRACTICES

- Workers must be wearing the proper Personal Protective Equipment (PPE) such as a hardhat, safety footwear, safety eyewear, hearing protection, and fall protection as required.
- Sheet metal, pipe and other materials used in the installation of ventilation systems can be very sharp and often cause deep cuts – wear gloves to protect your hands and long sleeved shirts to reduce cuts to your forearms.
- When handling sheet metal or pipe, never try to catch a slipping or falling piece.
- Before bringing materials into the house make sure stairs or access ramps are provided into the house and to all levels you will be working.
- Always follow proper manual lifting techniques.
- Set up a temporary work platform at waist level whenever possible when forming sheet metal.
- Clean up and pick up after yourself as you go; good housekeeping practices on the job site must be maintained. If bins are supplied – use them. If no bins, ensure banding and cuttings are put in boxes and disposed of.
- Do not modify or alter tools and do not use a tool for anything other than its intended purpose.
- Keep tin snips, pipe cutters and all cutting tools sharp. Don't use cheater bars as wrenches – always use the right tool for the job.
- Ensure tools are in safe working order. Attach a “do not use” tag to damaged tools and notify your foreman.
- Workers must receive WHMIS training and MSDS's (Material Safety Data Sheet) must be on site.
- Refer to MSDS sheets for the safe handling requirements and appropriate personal protective equipment for the materials such as caulking, pipe dope, solvent, glues or other hazardous products used with HVAC installations.
- Always remember to wash your hands after using solder or solder paste before eating or smoking.
- Protect yourself, other workers and the furnace by installing temporary covers over all floor and return air vents.

GENERAL SAFETY INFORMATION

1. PPE (Personal Protective Equipment)

PPE may be used as a method to help reduce identified hazards – as a “last line of defence”. Every effort to eliminate or reduce the hazard should follow this order:

- At the Source (Elimination or Substitution)
- Along the Path to the Worker (Modifications to Work or Process)
- At the Worker (PPE)

The Workplace Safety and Health Regulation states that **Safety Headwear and Safety Footwear** must be made “immediately available” for all personnel on a construction site (including new construction; renovations and any alterations or modifications to a structure, building or street). They must be worn if a danger to an injury is present.

Safety Headwear and Safety Footwear are mandatory PPE that must be “immediately available” or worn by any person on a construction site

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Required PPE to be worn or made “readily available” at residential construction sites include:

Head Protection: Where a danger of injury to a worker’s head exists or may exist. E.g. where overhead work is being done or where material is being hoisted overhead.

Foot Protection: Where danger of injury to a worker’s foot exists or may exist. E.g. where housekeeping is poor, material delivery, uneven terrain.

Fall Protection: If working at heights over 10 feet, or less, if a worker may fall onto a hazard, fall protection is required. Generally your options will be guardrails; travel restraint or fall arrest systems. See special note on Residential Fall Protection above.

Other PPE that may be required include:

Eye Protection: Where danger of injury or irritation to a worker’s eye exists. E.g. during use of power or pneumatic tools (skill saws, quick-cut saws, sweeping, sawdust, etc.).

Respiratory Protective Equipment: When working with or around airborne contaminants that may be an inhalation hazard or if the airborne contaminant exceeds applicable Occupational Exposure Limits, respiratory protection is required. E.g. dusts or chemicals; mixing cement or stucco, sanding, etc.

Hearing Protection: When noise levels in exceed 80 dBA, a hearing conservation program must be implemented. Ear muffs or Ear plugs should be worn when working with or around loud tools or equipment. E.g. skill saws, cutting, pneumatic tools.

Limb and Body Protection: Where danger of injury to a worker’s hands, arms or legs, or trunk of the body exists suitable clothing and equipment must be worn – E.g. dust, material handling, kneeling, sun, etc.

2. Lifting Activities

Caution and appropriate controls must be used during any lifting activity – to protect the load and the workers. Lifting on work sites is done either mechanically or manually. Whenever possible, lift and place heavy or awkward items using mechanical lifting devices.

Mechanical Lifting: Equipment or machinery must be of sufficient size to safely lift anticipated loads. Equipment or machinery must be properly maintained. Workers must be competent in the operation of the equipment, including certification if cranes or forklifts are used.

Manual Lifting: Proper lifting techniques should be employed (i.e. keep objects as close to the body as possible, lift with legs, not back). Know your limits, and ask a co-worker to help lift objects too heavy or awkward for one person, do not be afraid to ask for help. Eliminate potential tripping or slipping hazards before beginning to lift.

3. Access to the Work Area

Proper access to the work area must be available at all times – this will normally be ladders during plumbing & heating rough-in activities.

Ladders: Ladders should be used for short-term work only. Never lean out while on a ladder – move the ladder. Ladders used to access work areas should be grade 1. They must be secured from movement (normally tied off) and extend a minimum three feet above work level. The ladder should be positioned to maintain a 4:1 slope. Always maintain three-points of contact when climbing or descending a ladder.

Ramps: Ramps should be constructed of at least two – 2 x 10 planks. They must be secured from movement and have a slope no greater than one vertical to three horizontal. Cross cleats must be provided at regular intervals to exceeding 1 ½ feet – and must be keep clear of snow, ice and mud accumulations.

Stairs: Temporary stairs should be constructed to support any likely loads. They must be secured from movement; be uniform in width, length and height; with a slope not exceeding 50 degrees from horizontal. Open sides must have a handrail equivalent in strength to the top rail of a guardrail.

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4. Trucking Operations and Mobile Equipment

Trucking operations and mobile equipment are used to haul material or equipment to and from work sites. During homebuilding, the site can get very busy with backhoes, loaders, dump trucks, cement trucks and delivery vehicles. Protection of workers and/or the public is required in the working area. Traffic Control techniques should be implemented. Other general precautions should include:

- Minimize the need for equipment backing up. If required, ensure vehicles and equipment have back-up alarms and workers wear high visibility vests. Ensure standard signalling procedures are known and followed by everyone involved (including drivers of delivery vehicles and spotter).
- Be aware of the operators 'blind spots' – always maintain eye contact with the operator if you must approach equipment.
- Never stand under a suspended load or raised forks, buckets or blades.
- When receiving a load, use taglines to keep a safe distance between you and the load.

Truck drivers should be competent in the operation of the truck and or any other equipment associated with the truck (i.e. conveyors, hoists) as well as any techniques used to load and unload materials. All equipment must be capable of performing the task for which it is to be used and must be properly maintained.

5. General

Housekeeping is a major cause of residential incidents – scrap shingles and asphalt pebbles are often a cause of slips, trips and falls. It's very important to keep your job site clean – clean up as you go. Use a bin or create dedicated scrap piles as soon as possible. From a safety standpoint, cables and cords should be kept clear of work spaces to prevent tripping hazards.

It's recommended for fire extinguishers to be readily available for trades working with open flames.

There must be adequate lighting when performing work at all times.

Prior to beginning work, a toolbox talk can be very beneficial. When safety discussions are held, the chances are higher that a safe job will result.



RESTRICTED AREA
Authorized Personnel Only
All persons must contact Site Supervisor before entering

Employer: _____
Contact: (204) _____
First Aid: (204) _____ OR 911
First Aid Kit: ON SITE or in Service Vehicle
First Aiders: ON SITE
Safety Rep: ON SITE or contact employer

CONSTRUCTION SAFETY ASSOCIATION OF MANITOBA
Winnipeg: 204-775-3171 Brandon: 204-728-3456



MANDATORY PPE
All persons entering this site must wear:

Hard Hat _____
Safety Footwear _____
Eye Protection _____
Hearing Protection _____
Other: _____

CONSTRUCTION SAFETY ASSOCIATION OF MANITOBA
Winnipeg: 204-775-3171 Brandon: 204-728-3456

To assist the general public in "awareness" of the potential and actual hazards – the first and simplest method is to Post a Sign and if the hazards warrant, you may need secure the site (i.e. fencing and warning tape) or the actual hazard (i.e. floor openings or access ramps / ladders).

ACKNOWLEDGEMENT

With respect to the objects and purposes of ensuring, so far as reasonably practicable, that all construction and maintenance work undertaken by contracted parties of the builder or renovator will be undertaken in a safe manner, the following declaration must be signed and submitted.

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CONTRACTOR COMPLIANCE DECLARATION

With respect to the objects and purposes of ensuring, so far as reasonably practicable, that all construction and maintenance work undertaken by contracted parties of the builder or renovator will be undertaken in a safe manner, the following declaration must be signed and submitted.

Submitted To: _____

Company Name: _____

Address: _____

CSAM Safety Program Information

COR Certification # _____ Safety Program Registration # _____

DECLARATION

I have read the information provided to me by the Builder or Renovator respecting Plumbing & Heating, which I am advised was taken from the Manitoba Residential Construction Safety Guide, prepared by the Construction Safety Association of Manitoba. Its information relates to my trade or occupation to help ensure a safer job site.

- As required by all employers in the province of Manitoba, I have obtained current copies of the Workplace Safety and Health Act (W210) and the Construction Industry Regulation.
- As required by all employers in the province of Manitoba, I will ensure workers are supervised by a competent supervisor, familiar with the WSH Act and Regulations.
- As required by all persons in the province of Manitoba, I will share required information with the prime contractor, and those affected, necessary to identify and control existing and potential hazards.
- To the best of my knowledge, I and my company employees meet the minimum safety training requirements as outlined in Manitoba's Workplace Safety and Health Legislation.

Print Name: _____

Signature: _____

Print Company: _____

Date: _____



Head Office: Winnipeg (204) 775 – 3171
Westman Office: Brandon (204) 728 – 3456
www.constructionsafety.ca

Head Office: Winnipeg (204) 925 – 2560
www.homebuilders.mb.ca

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