



**City of White Bear Lake
Building Department
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BASEMENT FINISHING

This handout is a summary of the permit & inspection process as well as standard requirements based on State Building Code regarding Residential Basement Finishing. Information contained herein does not contain all of the specific codes for construction, and shall only be used as a guide.

A building permit is required to finish all single-family basements. The basement finish permit issued by the City does not cover modifications to existing or roughed-in plumbing, heating, and electrical systems. Specific work such as heating, plumbing and electrical work require separate permits. The permit applicant is responsible for code compliance. The permit applicant is responsible to call for all required inspections. Applicants obtaining building, plumbing, heating and electrical permits need to start work within 180 days of the permit issuance. Building, plumbing, and heating permits are valid as long as a required inspection is scheduled and approved once every 180 days or less. Electrical permits are valid for 12 months after the date of issuance. All work should be inspected and approved within these time lines.

Permit Submission Requirements:

- Completed permit application, including valuation (materials & labor cost).
- Two copies of floor plans drawn to scale. The proposed plans should show an existing layout and the changes of all intended work to be done and materials proposed for use.

Basement Finish Building Permit Fees: See the White Bear Lake Fee Schedule at www.whitebearlake.org

Licensing Requirements:

- Contractors must be licensed in the State of Minnesota if performing more than one single trade. Minnesota State license number must be provided on permit application.
- Contractors working on a structure built prior to 1978 are required to provide their Lead Certification Number (see permit application for exceptions.)
- Property owners may perform building related trades on property they own. Property owners may perform mechanical trades, such as plumbing, heating & electrical on property they own and occupy, otherwise a licensed contractor is required. Property owners doing their own work will be required to sign the Property Owner Waiver acknowledging their responsibilities to the Minnesota State Building Code, to Zoning Ordinances and to other applicable rules and regulation when they are acting as general contractor. All sub-contractors hired must be licensed and disclosed on the application.
- Rental property owners may perform building trade work. However, all plumbing, HVAC and electrical work on rental property shall be performed by a licensed contractor.
- Property owners renovating dwellings with the intent to sell must be state licensed if performing work on more than one property in a two-year period.

Inspection Requirements: The inspection card and approved plans must be on site upon the start of work until the final inspection has been performed and passed. All construction work shall remain accessible and exposed for inspection until approved by the Building Inspection Department.

All required inspections will be listed on the permit card. A final inspection is required upon completion of project and approvals for all other inspections have been complete; please call 651-429-8518 to schedule an inspection. A 24-hour notice is required for all inspections (period is subject change during busy times).

Information and Guidelines:

- Alterations to existing basements or portions thereof shall have a ceiling height of not less than 6 feet 4 inches, including beam, girders or other obstructions.
- A hardwired smoke detector with battery backup must be installed in all newly constructed areas of the basement. These detectors must be placed in each newly created sleeping room and in the hallway or common area serving each sleeping room. Existing areas of the home must also be upgraded. All existing bedrooms and hallways or areas providing access to bedrooms shall be provided with smoke detectors. Smoke detectors in existing areas shall be hardwired and interconnected where access via an exposed basement from below or an accessible attic from above exist. In cases where there is no practical means of access through a basement or attic area for installing new wiring to hardwired devices, battery operated detectors may be used. It is our recommendation when using battery operated smoke detectors that 10-year lithium battery smoke detectors be installed. Smoke detectors must be installed and be operational at the time of the final inspection.
- Carbon monoxide detectors shall be provided within 10 feet of every bedroom and may be hardwired; battery operated, or wall plug-in style and must be installed per manufacture instructions.
- Basements with habitable space and every sleeping room in the basement shall have an egress window. Egress windows shall have a minimum net clear opening of 5.7 square feet. Grade floor openings are windows located such that the sill of the window is not more than 44 inches above or below the finished ground level adjacent to the window. Egress windows that meet the definition of a grade floor opening may have a net clear opening of 5 square feet. Minimum net clear opening height shall be not less than 24 inches. Minimum net clear opening width shall be not less than 20 inches. The minimum width and height requirements do not meet the overall 5.7 or 5.0 square foot clear opening minimum required. Therefore, one or both of the minimum width/height dimensions need to be greater than the minimums to achieve the total openable area required. The windowsill height shall not be greater than 44 inches above the finished floor. Egress window wells shall be large enough for the window to be fully opened. The minimum horizontal dimension of the window well shall provide a minimum net clear area of 9 square feet with a minimum horizontal width of 36 inches. Window wells greater than 44" in depth shall have a permanent ladder installed for safe egress.
- Fire blocking shall be provided to cut off draft openings in concealed spaces. Common areas where fire blocking may be needed are at soffits, drop ceilings, stair stringers, around vent pipes, flues, etc. Concealed spaces should be fire blocked at 10-foot intervals both vertically and horizontally. Common materials used for fire blocking include nominal lumber, plywood, particleboard, gypsum, mineral wool and fiberglass.
- All sill plates on direct contact with concrete or masonry must be treated lumber or naturally resistance to decay, such as redwood or cedar.
- If the underside of stairs is to be used for storage or a closet, the entire underside of stairwell must be covered with 1/2 inch sheetrock.

- Insulation R-value, air barrier, and vapor retarder requirements *are not applicable* to existing foundations, crawlspace walls, and basement in existing dwellings when the alteration or repair requires a permit if the original dwelling or dwelling unit permit was issued before June 2009. Basement finish work in dwellings built after 2009 shall meet the provisions of the building code that was in effect at the time the home was constructed.
- Bathrooms shall be provided with an openable window with a minimum of 1½ square feet of openable area or a bathroom fan capable of providing five air changes per hour. Exhaust ductwork shall terminate at the exterior of the building. The termination point shall be provided with a back draft damper. The last three feet of bathroom exhaust ductwork shall be insulated.
- High moisture areas such as tub & shower enclosure walls must be covered with an approved water resistive sheetrock or backer board. Water-resistant sheet rock (green board) should not be placed over a vapor barrier. In areas that have high humidity & moisture where a vapor barrier is required, a fiber cement board should be used.
- Bathtub and shower water supply valves shall be provided with a mixing valve that provides anti-scald protection. Water supplies to these fixtures shall not exceed 120 degrees.
- Water closets (toilets) shall be placed no closer than 15 inches to its centerline measured to the sidewall. The clear space in front of the toilet shall be a minimum of 24" in depth. Flush tanks shall have an average consumption not to exceed 1.6 gallons of water per flush.
- Glazing located in hazardous locations should be tempered safety glass. Typical locations where tempered glazing is required are glazing in doors, sliding panels, stairways, and glazing around tubs and showers.
- All habitable rooms shall be provided with a heat source that will maintain a temperature of 68 degrees 3' above the floor and 2' from exterior walls in all habitable rooms. Return air ducts are typically not installed in bathroom or kitchen areas. All joints in newly installed ductwork must be sealed with mastic or an approved tape. Framing cavities shall not be used as cold air returns or supply ducts.
- Proper clearance and access shall be provided to the furnace, water heater and water meter. In general fuel fired equipment shall not be located in, or obtain combustion air from sleeping rooms, bathrooms, toilet rooms or storage closets. There are some exceptions to this rule for direct-fired equipment and where equipment is installed in a separate room provided with combustion air and tight fitting and self-closing doors.
- The minimum dimension (width) of any habitable room is 7 feet with a minimum room dimension of 70 square feet.
- Listed gas burning fireplaces shall be installed per the manufacturer's installation instructions. Fireplace specifications need to be kept on site for the inspector's reference.
- All new gas piping must be air tested at 25 lbs. for 30 minutes.
- All electrical, plumbing, and heating work must be installed in accordance with appropriate state codes.

Two major issues that should be considered before finishing the basement related to moisture infiltration and radon migration. A damp basement can foster mold and mildew growth that create an unhealthy indoor air environment. Although radon cannot be seen or smelled, it is well documented that it is known to cause an increased risk of lung cancer. Although not required by code for buildings being renovated, a draitile installation and radon testing or potential radon mitigation should be considered. These systems will be much more expensive to install after the basement is finished than before. Once you finish the basement, you will lose access to areas that may be readily available at this time. The types of things that could be done more easily prior to finishing the basement include.

- Spray foam rim joist areas to better insulate and obtain a continuous air barrier to prevent heat loss and increase energy efficiency.
- Seal the top course of exposed concrete block to prevent radon migration into the home.
- Caulking the floor where the basement slab meets the foundation wall to prevent radon migration.
- Paint the interior of basement foundation walls with a damp proofing paint.
- Installation of a draitile system to help keep the basement dry.
- Installation of a radon mitigation system if radon testing revealed a radon level of four or more picocuries.

This document is for informational purposes only and not intended to address every situation for the permitting and plan review process.

2022