

Guide for Basement Finishing

Building Permits

Building permits are required for finishing or partially finishing of basements. Homeowners may do any or all of the work, but any contractors hired must carry a current state credential as required by state law. Your building application shall include:

1. Floor plan drawn to scale, preferable 8-1/2" x 11" or 11" x 17" indicating areas to be finished
 - a. Including desired use. (i.e. family room, bedroom, office, etc.)
 - b. Note all room, door, & window sizes.
 - c. All new wall locations and any structural changes.
 - d. Include electrical panel location – electrical panels are prohibited in closets and bathrooms.
2. Completed Small Project Building Permit Application including estimated cost & contractors

General Code Limitations

Smoke detectors are required to be hardwired with battery back-up and interconnected. Smoke detectors shall be installed inside each bedroom and outside each separate sleeping area within the vicinity of all basement bedrooms. All existing hardwired smoke detectors need to be interconnected with new smoke detectors.

Egress windows are required inside all basement rooms used for sleeping. Egress windows shall have a minimum opening measuring 20" x 24" within 46" of the floor. Egress windows can be omitted in basements that have stairs to the first floor & an additional secondary door leading to the exterior.

Ventilation & Natural Light shall be provided to all basement bedrooms. Natural ventilation shall be provided by means of openable exterior doors or windows and shall be equal to or greater than 3.5% of the net floor area of the room. Natural light shall be provided by means of exterior glazed openings and shall be equal to or greater than 8% of the net floor area of the room.

Bathroom exhaust is required in all rooms with toilets, showers, or tubs. Bath fans are required to be capable of 20 cfm continuous exhaust or 50 cfm intermittent exhaust connected directly to the exterior.

Interior doors are required to be a minimum of 2'-8" wide (providing a 2'-6" clear opening) and 6'-8" tall for common use areas, 50% of all bedrooms, and one full bathroom. (Common use areas include laundry rooms, mechanical rooms, family rooms, etc.)

Vapor Retarder / Barriers are prohibited by the Wisconsin Uniform Dwelling Code in below grade walls. In existing installations where a plastic vapor retarder / barrier exist, it is required that the vapor retarder / barrier be removed prior to finishing the wall.

Combustion air shall be provided for all fuel burning appliances (i.e. furnace, water heater, clothes dryer). Combustion air can be provided through 1 of 3 methods. #1- Combustion air can be provided by interior air as long as the room around the equipment has an area greater than 50 cubic feet per 1,000 btuh input rating of all appliances installed in the room. #2 - Combustion air can be drawn from other interior spaces through two louvered wall openings with one located 12 inches of the floor and another located 12 inches from the ceiling. Each opening shall have free area equal to 1 square inch per 1,000 btuh input rating of all appliances installed within the room. #3 – Combustion air can be drawn from outside the building through an opening provided the opening is a minimum of 1 square inch per 3,000 btuh input rating of all appliances.

Electrical Code Limitations

Electrical Panels can not be located in bathrooms or closets and require dedicated working space in front of the electrical panel measuring 30 inches wide and 36 inches in depth measured perpendicular from the face of the panel. In addition, the space between the top of the electrical panel and the ceiling is dedicated for electrical needs only and shall be kept clear of unrelated equipment.

Branch circuits shall be added or altered to provide the minimum necessary receptacles outlets, lighting, switches, and smoke detectors required by code. 15 or 20 amp circuits can be used to satisfy the requirements for these general purpose lighting or receptacles. #14 wire or cable is the minimum size wire required for all 15 amp circuits. #20 wire or cable is the minimum size wire required for all 20 amp circuits. All new circuits are required to have **Arc Fault Circuit Interrupter (AFCI) type breakers** installed except those circuits serving bathrooms, storage rooms, and mechanical rooms.

Bathroom receptacle circuit is required to be a 20 amp circuit. Where the 20 amp circuit supplies a single bathroom, the circuit can also supply additional outlets, lighting, and exhaust fans within the same bathroom. (Electric heaters and whirlpool motors shall be served on their own circuit and in accordance with the manufacturer's instructions.)

Outlets for all habitable spaces (i.e. bedrooms, family rooms, recreation room, or similar room) outlets are required so that no point along a wall is more than 6 feet from an outlet. In addition, any wall spaces greater than 2 feet in width are required to have an outlet. Hallways that are greater than 10 feet in length are required to have at least one outlet. **All receptacles installed shall be of tamper-resistant type.**

Lighting shall be provided in every habitable room, bathroom, and hallway. At least one wall control (switch) shall be located to provide the minimum amount of lighting via a light fixture or switched outlet.

Closet Lighting is not required, but acceptable under the following conditions:

1. Surface mounted incandescent fixtures shall be installed to provide 12" minimum horizontal clearance between the fixture and the nearest storage space.
2. Surface mounted fluorescent, recessed fluorescent or recessed, incandescent fixtures shall be installed to provide 6" minimum horizontal clearance between the fixture and the nearest storage space.
3. All incandescent fixtures shall have the light bulb fully enclosed by decorative globe.

Inspections

It is the duty of the applicant or an authorized representative to notify our office at 386-4775 when work is ready for inspection. Our inspectors will make every effort to perform the requested inspection at the time requested; however, the Wisconsin Uniform Dwelling Code allows our office up to 2 business days to perform the inspection upon notification. All work shall be inspected prior to being concealed. Each component can be inspected individually or together (i.e. plumbing, HVAC, electrical, & framing) at the same time.