

Finished Basement Guide

The following information was compiled as a guide for residents who wish to finish their basement into living area. In order to obtain a permit two sets of plans must be submitted for review. The plans are not required to be of architectural quality, but must provide enough information to determine that all construction will be built to minimum code standards. The drawings must include the following information:

- Indicate the dimensions of existing exterior walls and new walls, existing exterior windows and doors, new interior doors, and hallways.
- Indicate type, size, and spacing of new partition studs and finish wall material.
- Indicate the location of all receptacles, lights, switches, smoke detectors, and exhaust fans.
- Indicate the location of all plumbing fixtures.
- Indicate approximate location of HVAC systems, water heater, and floor drain.
- Label each room to indicate its use, i.e.: family room, study, bedroom.

Typically, the more detailed a plan is, the faster we can issue a permit with little or no delay. The following is a list of common code requirements to keep in mind while drawing your plans:

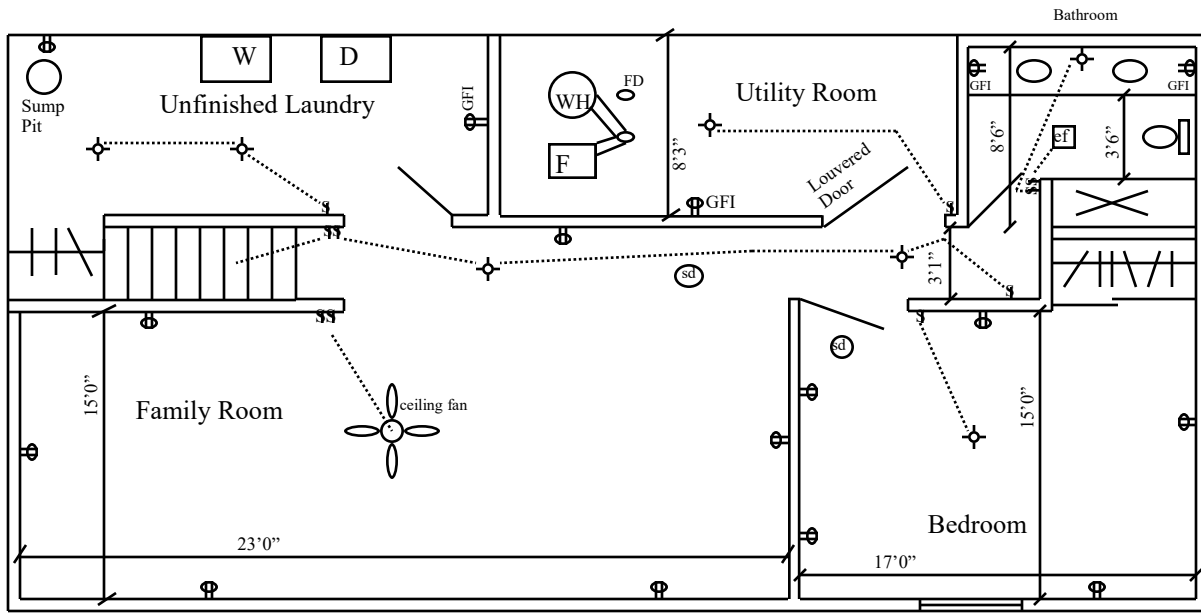
- Finished ceiling height must not be less than 7 feet.

Beams or duct work may project down into this required height a maximum of 6 inches. All habitable rooms are to have a minimum of 70 square feet and shall not be less than 7 feet in any direction. The minimum finished hallway width is 36".

- Fire blocking is required in concealed spaces of stud walls where furred spaces of masonry or concrete walls leave a gap. Fire blocking material can consist of 2 inch lumber, 23/32-inch plywood, 1/2" drywall, or equivalent.
- Unfinished ceilings are allowable only when the floor joist are nominal lumber. If it is TJI's it will have to be dry walled.
- An AC powered, U.L. listed smoke detector with battery backup shall be located in the vicinity of all bedroom entrance doors and inside each bedroom. Provide a minimum of one such smoke detector at the bottom of the basement stair for basements without bedrooms. All detectors in the house shall be interconnected so that the activation of any alarm will sound all alarms throughout the house. Smoke detectors must also be wired on a lighting circuit.
- An approved carbon monoxide alarm shall be installed outside of each separate sleeping area. In the immediate vicinity of the bedrooms with fuel fired appliances and/or attached garage
- Receptacles are required in all habitable rooms spaced 12 feet apart so that no space measured horizontally along the floor line is more than 6 feet from a receptacle. All receptacles shall be tamper resistant.
- GFCI receptacles are required in bathrooms, receptacles that serve within 6'0" of a wet bar, kitchen countertops, and in unfinished basement spaces. A laundry circuit and a single receptacle dedicated to a sump pump in an unfinished area are exempt from this requirement.
- At least one wall switched lighting outlet shall be installed in every habitable room, bathroom, hallway, stairway, and exterior doors. Lighting installed at interior stairways shall have a wall switch at each floor level.

- A basement bedroom must have one window or door meeting the following: a maximum clear sill height of 44", minimum clear width of 20", minimum clear height of 24", and clear open area of 5.0 sq ft.
- All branch circuits supplying bedroom receptacles are required to have an arc-fault interrupter.
- Interior means of egress door openings are to have a minimum clear width of 28 inches. Bathroom door openings are to have a minimum clear width of 26 inches.
- Bathroom exhaust fans must be a minimum of 50 cfm and exhaust to the exterior.
- If your plans include the enclosure of your furnace and water heater, ventilation at the top and bottom of the room will be required. Ventilation must equal 1 square inch for every 1,000 Btu/h of input rating of the fuel-burning appliance. A louvered door or combustion air vent through the wall can accomplish this. A door opening wide enough to repair or replace your mechanical equipment must be provided. A 12 inch clearance from the side of your furnace and a 30 inch clearance on the fuel burning side (front) is required. Please consult your HVAC manufacturers specifications for clearance requirements.

The preceding information is meant to be a helpful guide and apply to most simple residential basement finish projects. However, it does not include all of the codes that may apply. The plan reviewer may determine that unusual circumstances dictate the need for additional information on any particular project. In order to help you with your design a sample plan is on the reverse side. Inspections must be scheduled 24 hours in advance, by going on-line to request an inspection or call our office at (636) 327-5101.

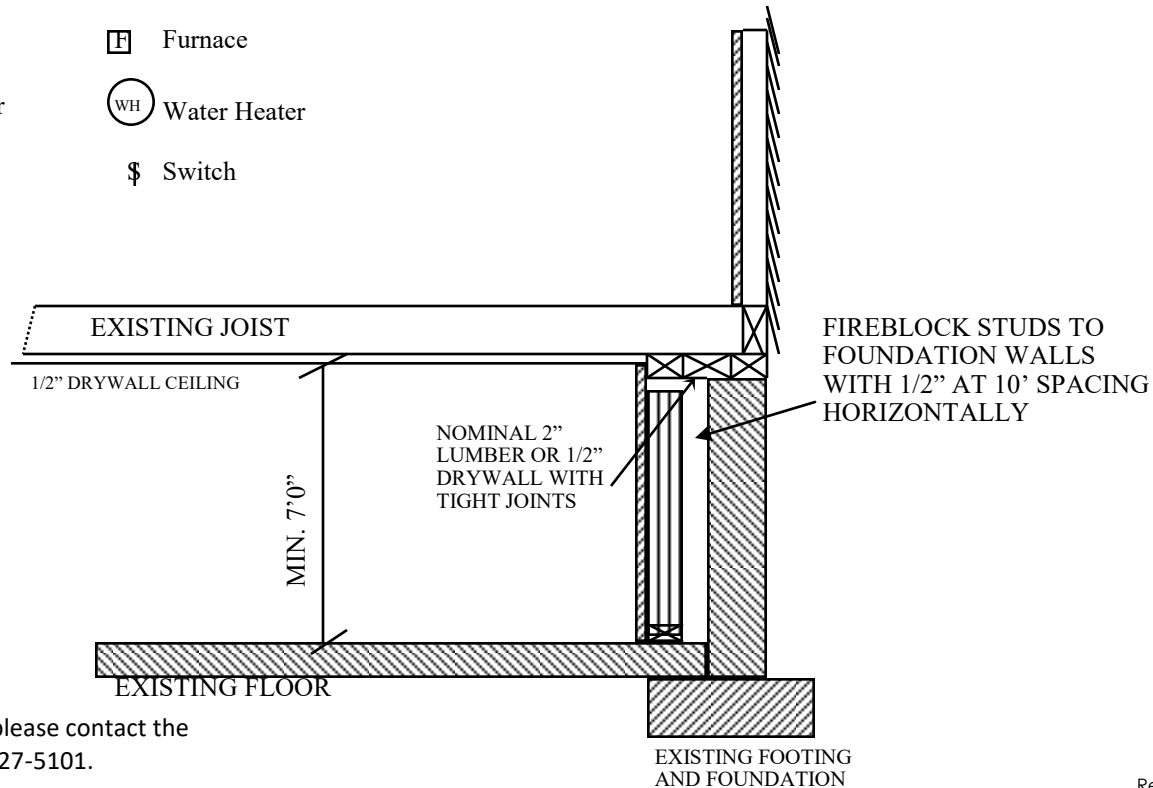


SAMPLE FLOOR PLAN

Window opening
 32" width x 25" height

KEY

- Receptacle
- Exhaust Fan
- Smoke Detector
- Light Fixture
- Floor Drain
- Furnace
- Water Heater
- Switch



If you have any questions please contact the Building Division at (636) 327-5101.