

# Residential Basement Finish

## Building Guide for Homeowners

### What you need to apply for a building permit:



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### DIRECTIONS

1. Submit 2 complete sets of required information.
2. Draw a floor plan with dimensions to scale, showing the layout of the entire basement. Label the use for all of the rooms. Distinguish existing from new and finished from unfinished.
3. Show electrical outlets, smoke detectors, lighting, fans, plumbing modifications, cleanouts, furnace and water heater. Indicate whether equipment is electric or gas.
4. List window sizes and types, identify emergency escape and rescue windows.
5. Identify modifications to the existing structure such as posts, beams and floor joists.
6. Indicate where dropped ceiling areas are less than 7 feet.
7. Show clearance around the tub and fixtures.

### Why Do I need a Permit?

There are many important reasons to obtain building permits and to have inspections performed for your construction project.

#### Protects property values

Your home is typically your largest investment. If your construction project does not comply with the building codes, your investment could lose value. If others in your neighborhood make unsafe or substandard changes to their homes, it could lower the resale values for the entire community.

#### Saves Money

Homeowners insurance policies may not pay for damages caused by work done without permits and inspections.

#### Makes Selling Property Easier

Listing associations require owners to disclose any home improvements or repairs and whether permits were obtained. Many financial institutions will not finance a purchase without proof of a final inspection. If you decide to sell a home or building that has had modifications without a permit, you may be required to tear down the addition, leave it unoccupied or do costly repairs.

#### Improves safety

Your permit allows the building department to inspect for potential hazards and unsafe construction. By ensuring your project meets the minimum building code standards of safety, the building department can reduce the risk of fire, structural collapse and other issues that might result in costly repairs, injuries and even death. Inspections complement the contractor's experience and act as a system of checks and balances that can result in a safer project.

#### It's the Law

Permits are required by Ordinance. Work without a permit may be subject to removal or other costly remedies.

### Tips For Hiring Contractors

- ◆ Get at least 3 bids.
- ◆ Get 3 references, and ask to see a project.
- ◆ Get it in writing, but before you sign the contract, make sure you completely understand.
- ◆ Do not make final payment until you have received a Certificate of Occupancy (CO) or until final inspections have passed
- ◆ **Have the contractor apply for the required permits.**

## Basement Finish Requirements

### Emergency Escapes:

All basements and sleeping rooms must have an emergency escape window or exterior door. Emergency escape windows with a sill height below grade must be provided with an emergency escape window, as well as a ladder. For details on Emergency escape windows, see Section R310 of the 2015 Michigan Residential Code.

### Ceiling Heights:

If the finished ceiling will be less than 7', please consult your Building Department.

### Smoke Alarms:

Smoke alarms are required in all basements. If the finished basement contains a sleeping room, a smoke alarm must be installed on the ceiling or wall in the sleeping room and in the hallway or area immediately outside of the sleeping room. Smoke alarms added to satisfy the above requirements must be hard-wired with a battery backup and interconnected with existing smoke alarms. Smoke alarms are required to be hardwired and interconnected in new AND existing bedrooms, halls and on each level.

**CO Detectors:** C/O detectors shall be placed within 15' of entrances of all bedrooms including all floors. Detectors may be hard wired into the house's electrical system.

### Insulation: R-13

### Fuel Burning Appliances:

Furnaces and water heaters cannot be located in a bedroom or bathroom unless appliances are installed in a dedicated enclosure in which all combustion air is taken directly from outdoors and a weather stripped solid door equipped with an approved self closing device is installed. If the furnace and water heater are being enclosed, adequate combustion air must be provided for these appliances to operate properly. A minimum of 30" clear working space must be provided in front of furnaces and water heaters. Maintenance or removal of each appliance must be possible without removing the other or disturbing walls, piping, valves, wiring and junction boxes.

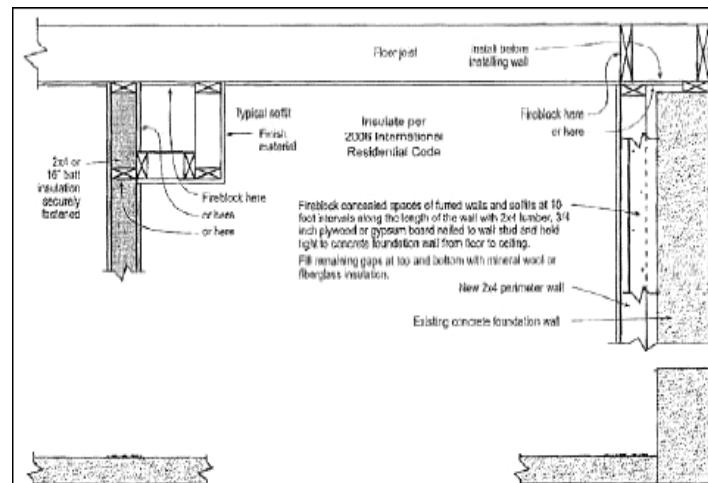
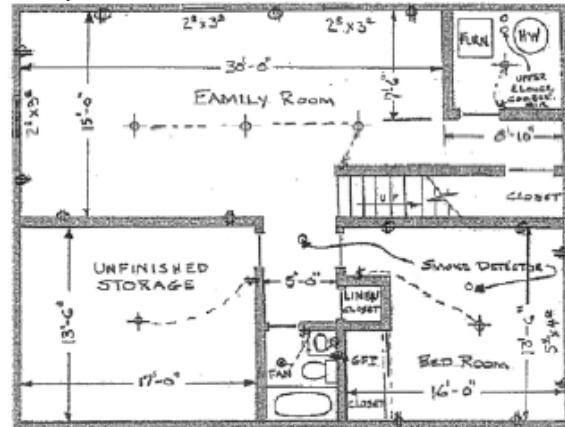
### Fire Blocking:

Fire Blocking must be installed in concealed spaces of wood-furred walls at the ceiling level, at 10' intervals along the length of the wall and at all interconnections of concealed vertical and horizontal spaces such as intersection of stud walls and soffits or dropped ceilings. A detail of typical fire blocking is included in this handout. Fire blocks may be constructed of 1-1/2" lumber, 3/4" plywood or particle board, 1/2" gypsum board or fiberglass insulation 16" minimum in height, securely fastened.

### Space under Stairs:

If the area under the stairs is enclosed useable space, protect the walls and ceiling with 1/2" gypsum board.

**Sample Floor**



**Sample Construction Details**

	Floor Joist	Install before
Typical soffit	← Finish material	Fireblock here Or
2x4 or 16" insulation securely	Insulate per 2015 Michigan Residential Code	
Fireblock here Or here Or here	Fireblock concealed spaces of furred walls and soffits at 10 foot intervals along the length of the wall. Nail to wall stud and hold tight to concrete foundation wall from floor to ceiling. Fill remaining gaps at top	New 2x4 perimeter Existing concrete foundation