

City of Belvidere

BUILDING DEPARTMENT

401 Whitney Blvd. Suite 300 Belvidere, IL 61008 815-547-7177

Codes for finishing basements in Residential Districts

These are some helpful tips for the process of finishing your basement and or lower level. Although this is not the entire code book and not all of the code sections are covered, these are some of the more important codes. Please feel free to contact the City of Belvidere Building Department at 815-547-7177 if you have any questions.

Section R310.1 Emergency Escape and Rescue Required

Basements, habitable attics, and every sleeping room shall have at least one openable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Where emergency escape and rescue openings are provided they shall have a sill height of not more than 44 inches above the finished floor. Where a door opening having a threshold below the adjacent ground elevations serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure shall comply with Section 310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section 310.2

Habitable space shall be defined as a space in a building for living, sleeping, eating, or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.

Section R310.2.1 Minimum Opening Area

All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet. Exception: Grade floor openings shall have a net clear opening of 5.0 square feet.

Section R310.2.1 Minimum Opening Height

The minimum opening height shall be 24 inches.

Section R310.2.1 Minimum Opening Width

The minimum opening width shall be 20 inches.

Section R310.1.1 Operational Constraints

Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

Section R310.2.3 Window Wells

The minimum horizontal area of the window well shall be 9 square feet, with a minimum horizontal projection and width of 36 inches. The area of the window well shall allow the emergency escape and rescue opening to be fully opened. Exception: The ladder or steps shall be permitted to encroach a maximum of 6 inches into the required dimensions of the window well.



Section R310.2.3.1 Ladder & Steps

Window wells with a vertical depth greater than 44 inches shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or rungs shall have an inside width of at least 12 inches, shall project at least 3 inches from the wall, and shall be spaced not more than 18 inches on center vertically for the height of the window well.

Section R317 Location Required

The following locations are required to be of approved decay-resistant heartwood of redwood, black locust, or cedar species and grade of lumber or pressure treated;

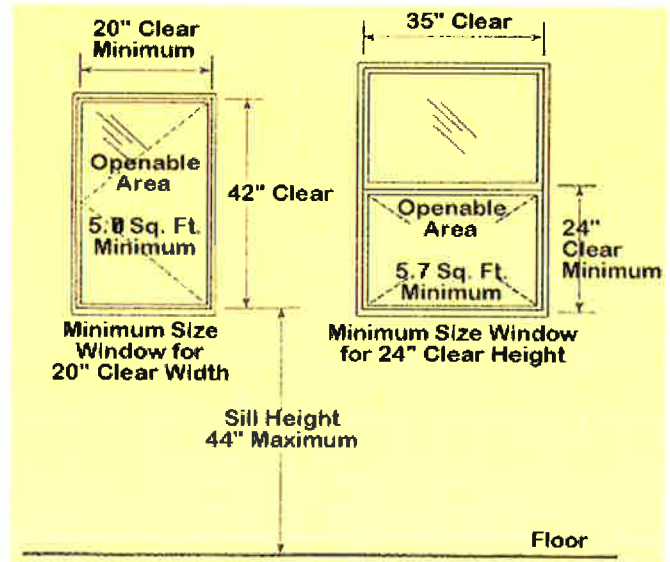
1. All wood framing members that rest on concrete or masonry exterior walls and are less than 8 inches from exposed ground.
2. Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier.
3. The ends of wood girders entering exterior masonry or concrete walls having clearances less than a ½ inch on tops, sides, and ends.
4. Wood furring strips or other framing members attached directly to the interior of the exterior masonry or concrete walls below grade except where an approved vapor retarder is applied between the wall and the furring strips or framing members.

Requirements for Permits

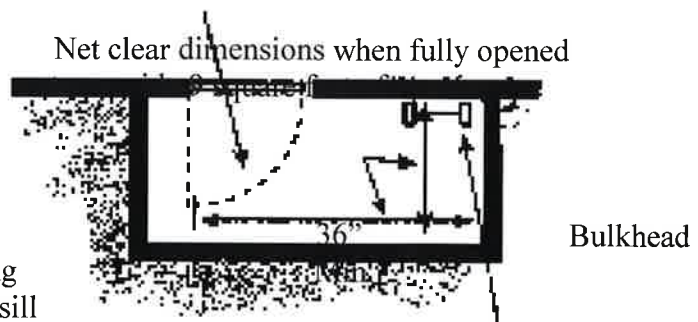
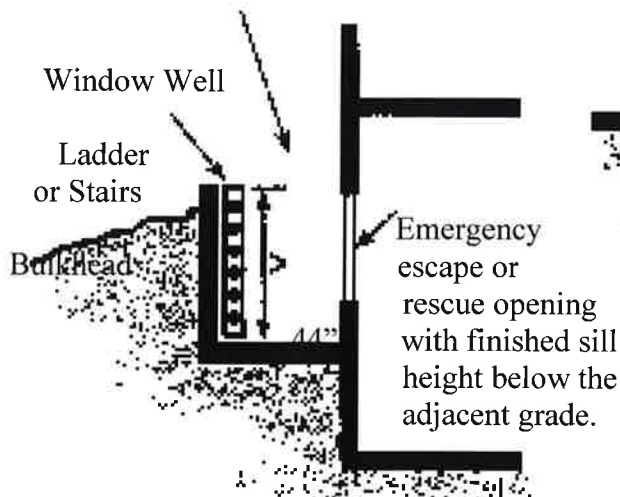
1. Plans or Drawings with dimensions
2. Owners name, address, & phone number
3. Contractors name, address, & phone number
4. Value of construction

Inspections (in order)

Plumbing Rough In and/or Electric Rough In
Structural Rough In (after both electric & plumbing)
Insulation Inspection
Plumbing Final and/or Electric Final
Structural Final (after both electric & plumbing)



Emergency Escape & Rescue Window Well must provide a minimum area of 9 square feet with a minimum dimension of 36" and shall enable the window to open fully. If the depth of the window well exceeds 44", a permanently affixed ladder must be provided. The ladder must not interfere with the operation of the window.



Ladder or Stairs permitted to encroach a maximum of 6" into the required dimensions.



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Basement Finishing Info Sheet

Electrical outlets required every 12' along walls and 6' from door openings.

Insulate basement exterior walls a minimum in cavity R-19

Install vapor retarder on/against block wall prior to framing.

Construct all walls on treated or redwood plates. Hem-fir or Doug-fir plates not allowed.

GFI outlet required in bathroom and for mechanical equipment.

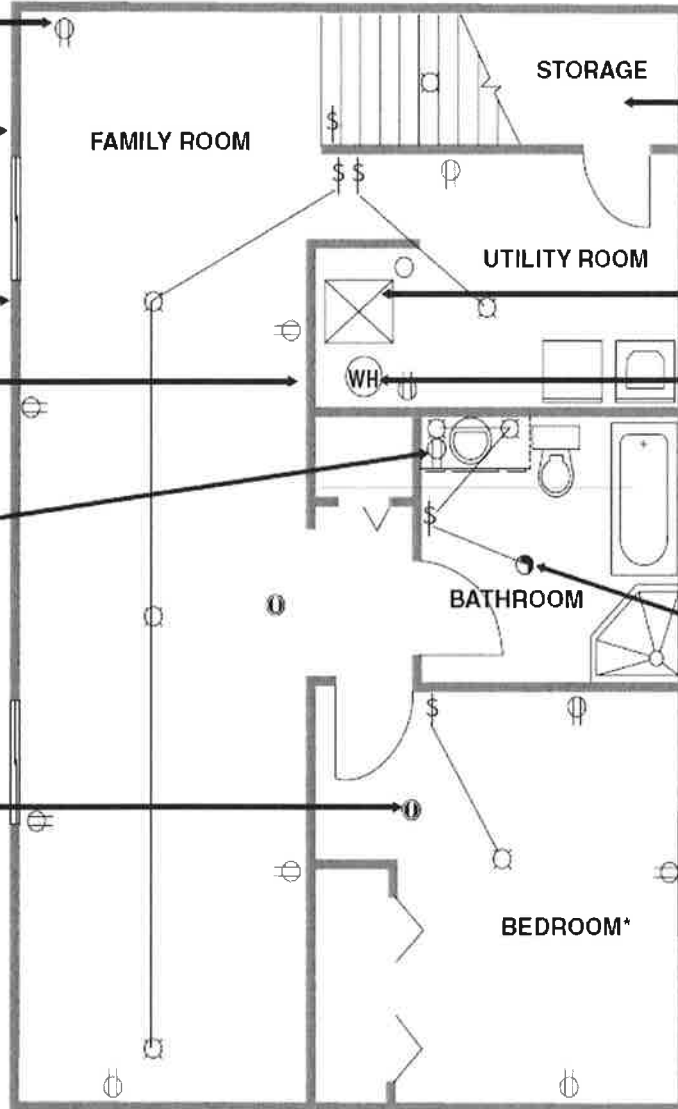
Smoke detectors:
Electronically-operated detectors in new basement finish and all bedrooms. Install battery-operated detectors in existing bedrooms and floors not equipped with smoke detectors.

CO Detectors within 15 feet of each sleeping room.

Minimum ceiling height is 7' with 6'-6" allowed for projections such as beams and ducts.

Gas-fired furnace or water heater cannot be in a bedroom, bathroom or closet.

Creation of a full kitchen in the basement of a single family home must be reviewed for conformance with zoning regulations.



Label uses of each room.

Protect storage under stairs on enclosed side with 1/2" gypsum board.

Provide combustion air to furnace and clear 30" working space in front of furnace.

A water heater must be able to be removed with the furnace intact.

Supply and return air is required for all habitable rooms.

A bathroom fan is required unless there is an openable window. Insulate the fan duct a minimum of 4' from the outside of the house rim. **R-6 Min.**

Show window sizes. Egress window required in each bedroom. Egress size: 5.7 sq. ft. of openable area with 20" min. width and min. height of 24". Sill no more than 44" above floor.

* All bedroom wiring must be protected by arc-fault circuit breakers (AFCB).

Note: Electrical boxes/panels are NOT allowed in bathrooms or closets.

This information is a guide to the most common questions. It is not intended, nor shall it be considered, a complete set of requirements.

*** Information in this handout is current as of February 2017 ***