

FINISHING YOUR BASEMENT

Basement suites

This page provides information about finishing the basement of a single-family home. It does not include information for the construction of secondary suites included in the current edition of the National Building Code –Alberta Edition (NBC(AE)).

[Read more about secondary suites](#)

When you need a permit

If you are planning to finish your basement, you will need permits. As the homeowner, you are responsible for getting all required permit(s).

[Learn where to purchase a permit in your area](#)

Check with your municipality to find out what permits you need as well as the zoning and development bylaws in your area. Some restrictions may apply. Make sure you get your permit(s) before starting your project.

Required plans

You must submit plans with your building permit application to your municipality or permit provider before starting construction. The plans will likely include at least a basement floor plan and a cross-section of the foundation wall.

Basement floor plan

Your basement floor plan must:

- indicate the use and size of rooms and spaces
- use proper dimensions
- provide floor layout and construction details
- show window and door opening locations and sizes
- include details of all structural elements (where necessary)

Cross-Section

The cross-section must:

- show the existing foundation and its wall assembly materials
- show materials being added to the existing foundation wall



SAFETY TIPS

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Insulation

The perimeter of the foundation wall is to be fully insulated using an insulating material having a minimum effective thermal resistance required by the NBC(AE). The minimum effective thermal resistance is determined by the geographical location of your home.

Foamed plastic insulation materials

These can produce toxic gases when exposed to fire and must be protected by a thermal barrier (i.e., gypsum board).

Vapour barrier

Vapour barrier must be installed on the warm side of the insulation.

Egress from bedrooms

Unless a bedroom has an exterior door or the building has a fire sprinkler system, each bedroom must have at least one window that can be opened from the inside without the use of tools or special knowledge.

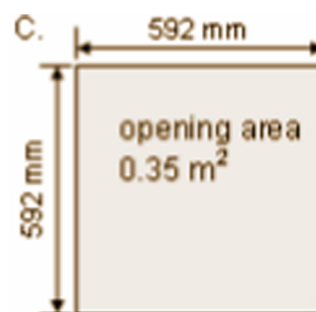
This window must provide an unobstructed opening with a minimum area of 0.35 m^2 (3.77 square feet or 543 square inches), with no dimension less than 380 mm (15 inches). See the drawings examples below for further clarification.

Examples of conforming and non-conforming bedroom windows

The opening in example A is only 0.144 m^2 (1.6 square feet) and does not conform. It is not large enough to allow the average occupant to pass through the window as an alternate means of escape during a fire emergency.

Examples B and C do conform to height, width and area requirements.

A. Does not conform to area requirements



Window egress into window-well

If a window opens into a window-well, a clearance of not less than 760 mm (30 inches) between the window and the wall of the window-well is required.

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An awning-style window may pose a challenge in maintaining this clearance, and it could interfere with the occupant's ability to exit through the window-well. The required clearances must be maintained when the window is open position.

Smoke alarms

Smoke alarms must conform to the CAN/ULC-S531 "Smoke Alarms" standard. There must be at least one smoke alarm installed on each storey – including basements – in each sleeping room and in a location between the sleeping room(s) and the remainder of the storey.

They must be installed according to the CAN/ULC-S553 "Installation of Smoke-Alarms" standard and the NBC(AE).

All smoke alarms must be hard-wired to an electrical circuit and interconnected so that when one alarm sounds, all alarms within the dwelling unit will sound.

[Read more about smoke alarm home installation](#)

Carbon monoxide alarms

Since May 2015, every home that contains a fuel-burning appliance or storage garage requires that carbon monoxide alarms be installed inside each bedroom or outside each bedroom within 5 m of each bedroom door.

Even though carbon monoxide alarms are not required in homes that predate the above requirements, it is highly recommended that they be installed. Carbon monoxide alarms must conform to CAN/CSA-6.19 "Residential Carbon Monoxide Alarming Devices"

[Read more about carbon monoxide alarm home installation](#)

Contact

Community and Technical Support branch of Municipal Affairs:

Hours: 8:15 am to 4:30 pm (open Monday to Friday, closed statutory holidays)

Toll free: 1-866-421-6929

Email: safety.services@gov.ab.ca

Safety Codes Council:

Toll free: 1-888-413-0099 (within Alberta)

Email: sccinfo@safetycodes.ab.ca

Web: safetycodes.ab.ca

Alberta Safety Codes Authority:

Toll free: 1-888-413-0099 (within Alberta)

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