



City of
GREENFIELD, MASSACHUSETTS

Department of Inspections and Enforcement

Roxann D. Wedegartner
Mayor

Mark A. Snow
Inspector of Buildings

City Hall • 14 Court Square • Greenfield, MA 01301
Phone: 413-772-1404 x 2105 • Mark.Snow@greenfield-ma.gov • www.greenfield-
ma.gov



PERMIT INFORMATION GUIDE
NEW CONSTRUCTION FOR ONE & TWO FAMILY DWELLING
SMOKE / HEAT & CARBON MONOXIDE DETECTOR REQUIREMENTS

A Permit is required by Massachusetts State Building Code 9th edition for the installation of a new or alterations to a fire protection system, i.e. smoke / heat and carbon monoxide alarm system

To obtain a permit to install a new fire protection system in new construction for a One-Two family dwelling, first, the owner or authorized agent must first file a permit application on a form furnished by the building official for that purpose. Such applications shall be complete and include the following information:

- A floor plan for the entire dwelling unit, individual spaces labeled for its intended use.
- Show location placement for each device and indicate the type of device.
- Information must be provided to indicate how each alarm device will receive their primary power, method used to interconnect with other alarm devices and how each device receives their backup power.
- If there is an attached garage, must show location of heat detector and connected alarm inside the dwelling.

Smoke detection and notification:

- All smoke alarms shall be photoelectric type smoke alarms listed in accordance with UL 217 or UL268 and installed in accordance with the provisions of this code and the household fire warning equipment provisions of NFPA 72.

Exception: Where smoke alarms are provided meeting the requirements of Section R314.4.

Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
4. Smoke alarms shall be installed not less than three feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by section R314.3.
5. For each 1,000 ft² of area or part thereof.
6. Near all stairs.

Common Areas: (Applicable to two-family dwelling)

- In all buildings which are not protected with sprinklers, each unit shall have additional interconnected smoke detectors on the stairway side of all doors leading to common interior stairways. If there is a common basement, a separate interconnected system of smoke detectors, including smoke detectors on the stairway side of all doors leading to interior stairways, shall be provided to serve the basement level only.

Interconnection:

- When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit.

Power source:

- Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over current protection. Smoke alarms shall be interconnected.

Exceptions:

1. Smoke alarms shall be permitted to be battery operated when installed in buildings without commercial power.

Heat Detector:

- A single heat detector listed for the ambient environment shall be installed in:
 1. Any garage attached to or under the dwelling (detached garages do not require a heat detector).
 2. A new garage attached to an existing dwelling. If the existing house contains a fire detection system that is compatible with the garage heat detector, then the detector shall be interconnected to that system. Where the existing fire detection system is not compatible with the garage heat detector, the garage heat detector shall be connected to an alarm (audible occupant notification), or compatible heat detector with an alarm, located in the dwelling and within 20 feet (6,096 mm) of the nearest door to the garage from the dwelling. An alarm is not required in the garage, either integral with or separate from the heat detector.

Heat Detector Placement:

- For flat-finished ceilings, the heat detector shall be placed on or near the center of the garage ceiling. For sloped ceilings having a rise to run of greater than one foot in eight feet (305 mm in 2,438 mm), the heat detector shall be placed in the approximate center of the vaulted ceiling but no closer than four inches (102 mm) to any wall. Heat detection shall be listed in accordance with UL 521 or UL 539

Carbon monoxide Alarms:

General:

- Carbon monoxide alarms shall comply with section R315, 248 CMR, NFPA 720, and the manufacturer's instructions. Any required carbon monoxide detection shall be interconnected.

Listings:

- Carbon monoxide alarms shall be listed in accordance with UL 2034 and UL 2075. Combination carbon monoxide and smoke alarms shall be listed in accordance with UL 2034 and UL 217.

Alarm requirements:

- Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer's installation instructions.

New construction:

- For new construction, carbon monoxide alarms shall be provided in dwelling units where either or both of the following conditions exist.
 1. The dwelling unit contains a fuel- fired appliance.
 2. The dwelling unit has an attached garage with an opening that communicates with the dwelling unit

Locations:

- Carbon monoxide alarms in dwelling units shall be outside of each separate sleeping area within ten feet of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom. At least one alarm shall be installed on each story of a dwelling unit, including basements and cellars but not in crawl spaces and uninhabitable attics.

Combination Alarms:

- Combination carbon monoxide and smoke alarms (in compliance with section 314) shall be permitted to be used in lieu of carbon monoxide alarms, located as in R315.3, provided they are compatible and the smoke alarms take precedence.

Power Source:

- Carbon monoxide alarms and combination alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over current protection. Alarms may also be part of a low voltage or wireless system with standby power from monitored batteries in accordance with NFPA 72.

EXCEPTION: Carbon monoxide alarms shall be permitted to be battery operated where installed in buildings without commercial power.

**PROPERLY LOCATED, MAINTAINED WORKING SMOKE/CARBON MONOXIDE DETECTORS
SAVES LIVES**

