

## CITY OF WOOSTER

## SMOKE DETECTORS SAVE LIVES

### DIVISION OF BUILDING STANDARDS

### DIVISION OF FIRE



#### ***Why are smoke detectors so important?***

Fire kills an estimated 4,000 Americans and seriously injures 30,000 every year. Residential fire deaths far exceed those of any other building use. Ninety percent of fire deaths occur in residential buildings and two-thirds of these occur in the victim's own home. Most fatal fires occur at night between 11:00 pm and 6:00 am when most people are asleep. A common misconception is that smoke will awaken you if a fire does break out. In fact, the toxic smoke may actually put you into a deeper sleep, making a safe escape impossible. Most deaths occur from inhaling poisonous gases or smoke, not the flames. For years we have known that the best way to fight a fire is to stop it before it starts. But when fire prevention isn't possible, a smoke detector is your first and best line of defense. A Johns Hopkins University study found that about eighty percent of these deaths and injuries could have been prevented by smoke detectors. For your safety, ensure your smoke detectors are installed according to the code and operating correctly.

#### ***When does the building code or fire code require the installation of smoke detectors?***

Smoke detectors are required in residential type occupancies such as: single family homes, apartments, dormitories, rooming houses, bed and breakfasts, residential care/assisted living facilities, group homes, and treatment facilities. Smoke detectors are required to be installed not only in new construction, but also existing buildings. All of these occupancies should have smoke detectors installed in the required locations without exception.

The applicable codes are:

1. The Ohio Building Code. This code applies to buildings with more than 3 units.
2. The Ohio Residential Code. This code applies to single family thru three units.
3. The International Property Maintenance Code. This code applies to all buildings.
4. The Ohio Fire Code. This code applies to all buildings.

#### ***Where should they be installed?***

The code requires smoke detectors to be located:

1. in each sleeping room,
2. outside each separate sleeping area in the immediate vicinity of the bedrooms,
3. One on each additional story of the dwelling, including basements and cellars.

This applies to all of these residential type occupancies without exception.

***What type of smoke detector is approved? Can they be battery type or should they be “hardwired” and interconnected with a battery back-up?***

The Building Code has a unique provision that requires hard wired interconnected battery back-up smoke detectors to be retrofitted in existing dwelling units when almost any work requiring a permit is necessary. This would include new construction and also remodeling when any addition, alteration, or repair causes a permit to occur. This provision is intended to speed up the installation of these types of smoke detectors as they have proven to be very effective in the reduction of fire deaths. In general, the code requires that smoke detectors receive their power from the building wiring with a battery backup and that these smoke detectors will all sound an alarm if any one sounds an alarm. There are some exceptions for the installation of detectors in existing buildings where the work requiring a permit does not result in the exposure of electrical wiring by the removal of interior wall and ceiling finishes and the basement or attic is not accessible for installing wiring. Also, work solely on the exterior surface of a dwelling or deck or porch does not require hardwired battery backup smoke detectors to be installed. Also, existing structures that are not undergoing any work do not require hardwired battery backup smoke detectors to be installed. In these cases, smoke detectors may be solely battery operated. Regardless of what type of smoke detector is required, purchase smoke detectors that are listed by an approved testing agency and install them according to manufacturer’s instructions.