

ONTARIO BUILDING CODE

3.2.4.22. Smoke Alarms

(1) Except as permitted by Sentence (6), *smoke alarms* conforming to CAN/ULC-S531, "Smoke Alarms", shall be installed in each *dwelling unit* and, except for *care, care and treatment or detention occupancies* required to have a fire alarm system, in each sleeping room not within a *dwelling unit*.

(2) At least one *smoke alarm* shall be installed on each *storey* and *mezzanine* of a *dwelling unit*.

(3) On any *storey* of a *dwelling unit* containing sleeping rooms, a *smoke alarm* shall be installed in,

- (a) each sleeping room, and
- (b) a location between the sleeping rooms and the remainder of the *storey*, and if the sleeping rooms are served by a hallway, the *smoke alarm* shall be located in the hallway.

(4) A *smoke alarm* shall be installed on or near the ceiling.

(5) Except as permitted by Sentence (6), *smoke alarms* required by Sentence (1) shall,

- (a) be installed with permanent connections to an electrical circuit,
- (b) have no disconnect switch between the overcurrent device and the *smoke alarm*, and
- (c) in case the regular power supply to the *smoke alarm* is interrupted, be provided with a battery as an alternative power source that can continue to provide power to the *smoke alarm* for a period of not less than seven days in the normal condition, followed by 4 min of alarm.

(6) Suites of residential occupancy are permitted to be equipped with smoke detectors in lieu of smoke alarms, provided the smoke detectors,

- (a) are capable of independently sounding audible signals within the individual suites,
- (b) except as provided by Sentence (7), are installed in conformance with CAN/ULC-S524, "Installation of Fire Alarm Systems", and verified in conformance with CAN/ULC-S537, "Verification of Fire Alarm Systems", and
- (c) form part of the Fire alarm system.

(7) Smoke detectors permitted to be installed in lieu of smoke alarms as provided in Sentence (6) are not required under Clause (6)(b) to sound an alarm throughout the rest of the building, provided they sound localized alarms within individual suites and otherwise meet the requirements of Clause (6)(b).

(8) If more than one *smoke alarm* is required in a *dwelling unit*, the *smoke alarms* shall be wired so that the actuation of one *smoke alarm* will cause all *smoke alarms* within the *dwelling unit* to sound.

(10) Except as permitted by Sentence (11), a manually operated silencing device shall be incorporated within the circuitry of a *smoke alarm* installed in a *dwelling unit* so that it will silence the signal emitted by the *smoke alarm* for a period of not more than 10 min, after which the *smoke alarm* will reset and again sound the alarm if the level of smoke in the vicinity is sufficient to reactuate the *smoke alarm*.

(11) *Suites of residential occupancy* equipped with *smoke detectors* installed in conformance with CAN/ULC-S524, "Installation of Fire Alarm Systems", as part of the fire alarm system in lieu of *smoke alarms* as permitted by Sentence (6), need not incorporate the manually operated silencing device required by Sentence (10).

(12) The sound patterns of *smoke alarms* shall,

- (a) meet the temporal patterns of *alarm signals*, or
- (b) be a combination of temporal pattern and voice relay.

(13) Smoke alarms required by Sentence (1) shall have a visual signalling component conforming to the requirements in 18.5.3. (Light, Color and Pulse Characteristics) of NFPA 72, "National Fire Alarm and Signaling Code". (See Appendix A.)

(14) The visual signalling component required by Sentence (13) need not,

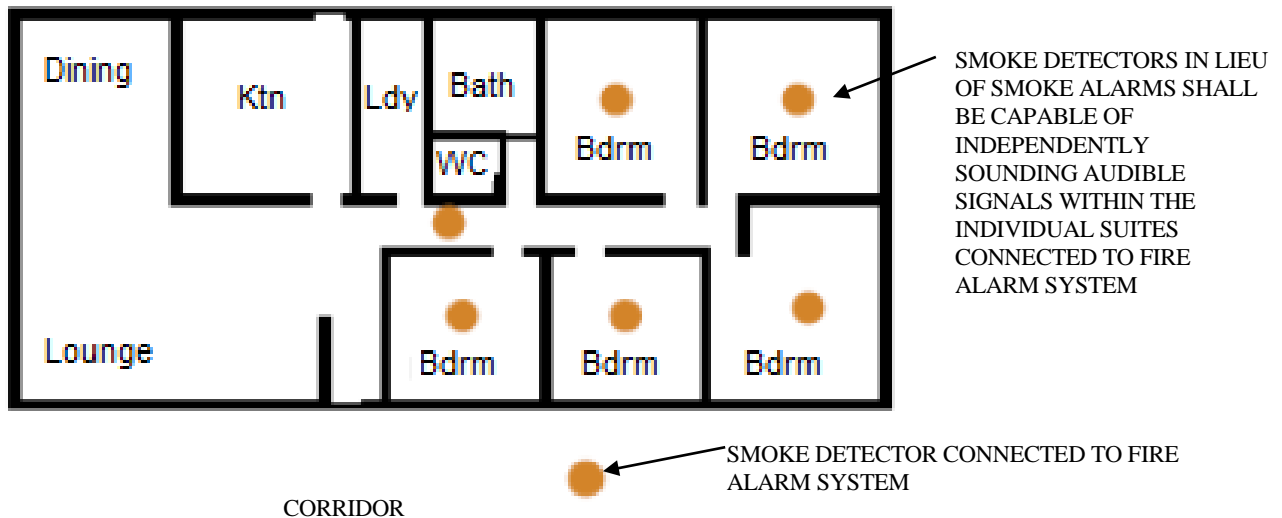
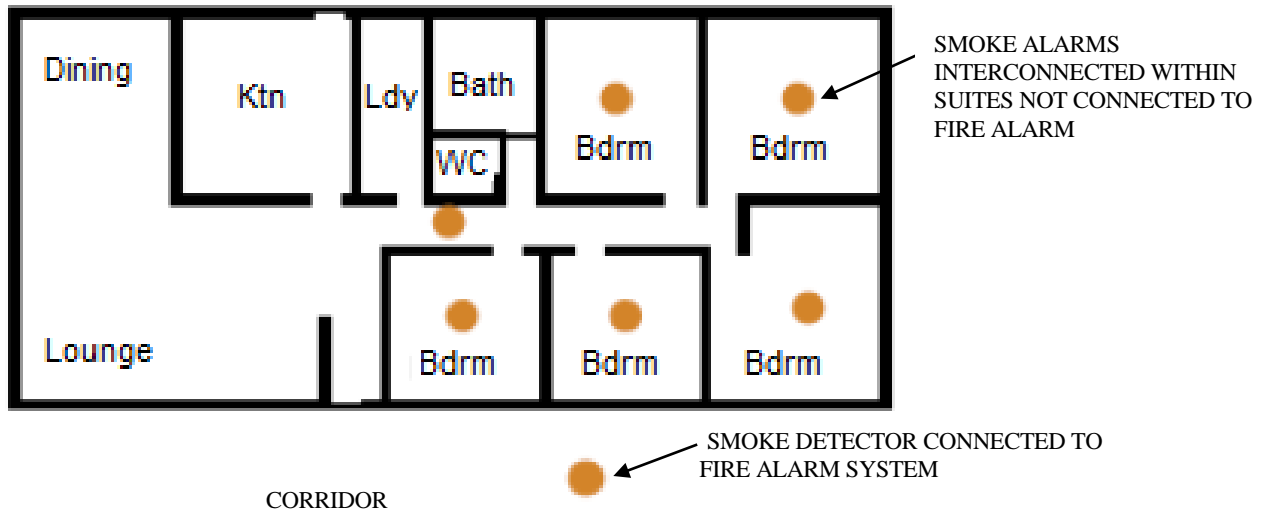
- (a) be integrated with the smoke alarm provided it is interconnected to it,
- (b) be on battery backup, or
- (c) have synchronized flash rates, when installed in a dwelling unit.

(15) The luminous intensity for visual signalling components required by sentence (13) that are installed in sleeping rooms shall be a minimum of 175 cd.

OBJECTIVE

The Building Standards Department issues BUILDER TIPS as part of our customer service program. They are designed to provide an improved understanding of the Building Code and to reduce the costs associated with correcting infractions. Please contact your area building inspector for further information or call the Building Standards Department at (905) 475-4850

To detect the presence of smoke and initiate an audible alarm and visual signal to warn occupants to take the appropriate action to secure their safety. Sentence (6) recognizes certain smoke alarms with sounder base installations (essentially an independent smoke detector functioning as a smoke alarm) that may be the choice of installation in some hotels, motels and dormitories. These detectors, although functioning remotely in the individual suites, would be connected to a fire alarm panel thus providing additional supervision of the detectors in the individual rooms. These devices would be required to follow the inspection frequencies of CAN/ULC-S536, "Inspection and Testing of Fire Alarm Systems," as per the Fire Code.



Floor plans from
<http://www.fire.nsw.gov.au/page.php?id=443>