

Requirements for Additions/Enclosed Deck/Finished Bonus Room/Dormer

- Architectural prints – one (1) set – floor plan addressing the following items:
 - Decay-resistant sill plates
 - Show *how* and *where* combustion make-up air is being provided for
 - Show manufacturer's/code compliant distances from the boiler/furnace to combustible walls/materials
 - Indicate 30" minimum clearance in front of controls/firing tube
 - Review attached detail showing fire stopping at top of wall/floor joist connection
 - Lighted stairways and switches at top and bottom of stairs
- Smoke detectors
 - When alterations or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the entire building shall be provided with smoke detectors located as required for new dwellings. The smoke detectors may be battery operated and are not required to be interconnected unless other remodeling considerations require removal of the appropriate wall and ceiling coverings to facilitate concealed interconnected wiring.
- Carbon monoxide detectors
 - Should be installed outside of each sleeping area in the immediate vicinity of the bedrooms. When more than one carbon monoxide detector 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 carbon monoxide detector will activate all of the carbon monoxide detectors in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. All carbon monoxide detectors shall be listed and shall be installed in accordance with their listing and the manufacturer's installation instructions.
 - Exception: Carbon monoxide detectors shall not be required in dwelling units not containing a fuel-burning appliance, fireplace or attached garage.
- Power source
 - In new construction, the required carbon monoxide detectors shall be permanently installed and shall receive their primary power from the building wiring when such wiring is served from a commercial source. When primary

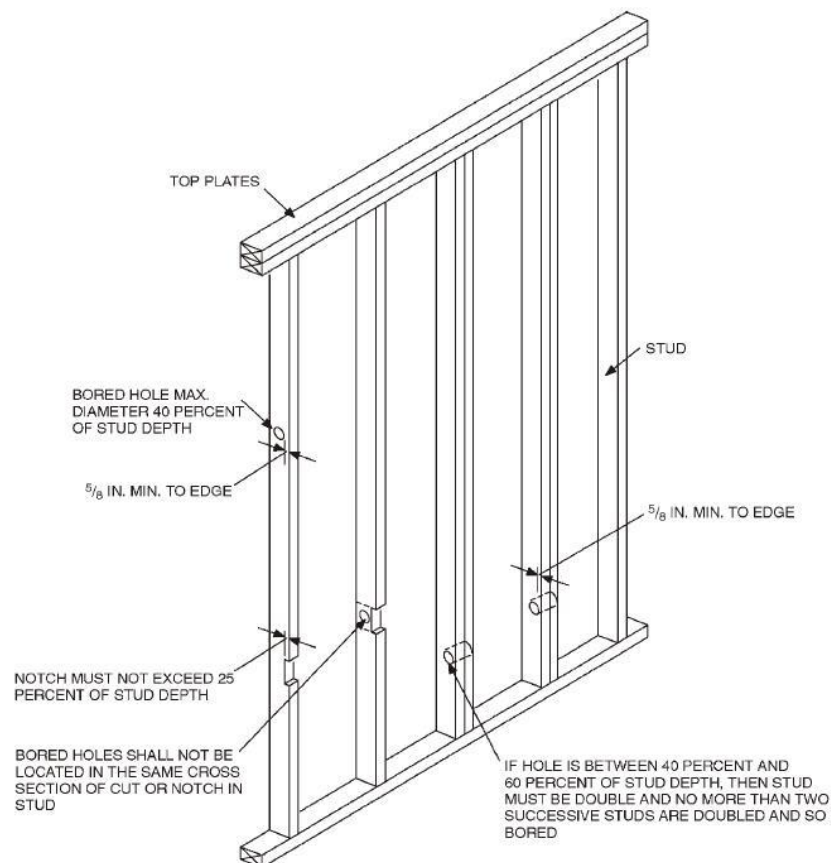
power from the building wiring is interrupted, they shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over current protection. Carbon monoxide detectors shall be permitted to be battery operated when installed in buildings without commercial power or in buildings that undergo alterations or additions regulated by Section R313.3.2.

- Alterations and additions
 - When alterations or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the entire dwelling shall be provided with carbon monoxide detectors located as required for new dwellings. The carbon monoxide detectors shall have a power source in accordance with Section R313.3.1.
 - Exceptions:
 1. The carbon monoxide detectors may be battery operated or plug-in and are not required to be interconnected when other remodeling considerations do not require the removal of the appropriate wall and ceiling coverings to facilitate concealed interconnected wiring.
 2. Alterations to the exterior surfaces of dwellings including, but not limited to, reroofing, residing, window replacement and the construction of decks without roofs, shall be exempt from the requirements of this section.
 3. Carbon monoxide detectors shall not be required in dwelling units not containing a fuel-burning appliance, fireplace or attached garage.
- Opening protection
 - Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1-3/8 inches in thickness or 20-minute fire-rated doors in solid wood jambs. Doors between the garage and the residence shall be equipped with a self-closing device.
- Duct penetration
 - Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48mm) sheet steel or other approved material and shall have no openings into the garage.
- Separation required
 - Garages attached side by side to residences shall be separated from the residence and its attic area by means of a minimum 5/8 inch type X gypsum board applied to the garage side. Garages beneath habitable rooms, closets,

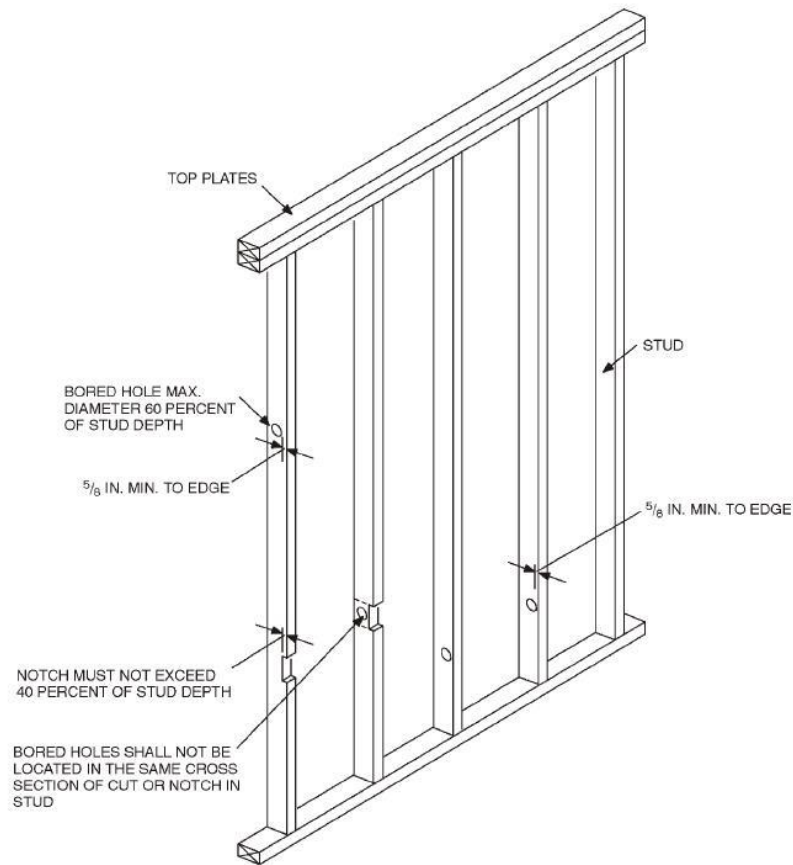
bathrooms, toilet rooms, halls or utility spaces in residences shall be separated from adjacent interior spaces by a minimum 5/8 inch type X gypsum board applied to the garage side of all walls, ceilings and combustible structural supports. Gypsum board joints shall be finished in accordance with the manufacturer's requirements.

- Exception: Wood structural members of the minimum dimensions specified in Section 602.4 of the 2003 International Building Code for Type IV construction shall be acceptable without further protection.
- Drilling and notching – studs
 - Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25 percent of its width. Studs in non-bearing partitions may be notched to a depth not to exceed 40 percent of a single stud width. Any stud may be bored or drilled, provided that the diameter of the resulting hole is not greater than 40 percent of the stud width, the edge of the hole is no closer than 5/8 inch (15.9 mm) to the edge of the stud, and the hole is not located in the same section as a cut or notch. See Figures R602.6(1) and R602.6(2) below.

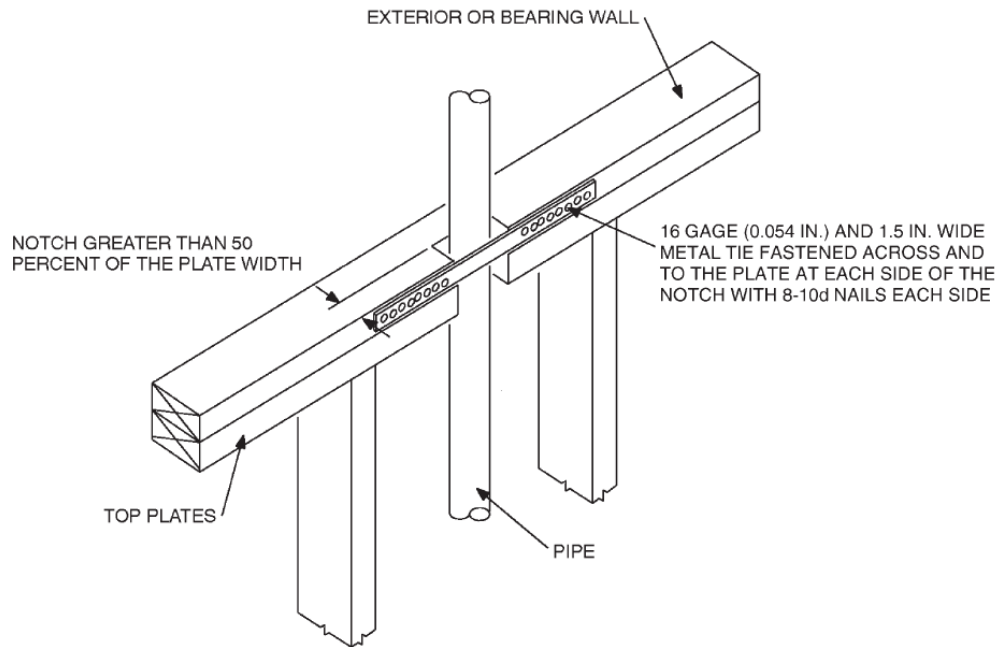
R602.6(1):



R602.6(2):



- Exceptions:
 1. A stud may be bored to a diameter not exceeding 60 percent of its width, provided that such studs located in exterior walls or bearing partitions are doubled and that not more than two successive studs are bored.
 2. Approved stud shoes may be used when installed in accordance with the manufacturer's recommendation.
- Drilling and notching of top plate
 - When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie of not less than 0.054 inches thick (1.37mm) (16ga) and 1-1/2 inches (38mm) wide shall be fastened to each plate across and to each side of the opening with not less than eight 16d nails at each side or equivalent. See Figure R602.6.1 below.



- Exception: When the entire side of the wall with the notch or cut is covered by wood structural panel sheathing.
- Protection against physical damage
 - In concealed locations, where piping, other than cast-iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1.5 inches (38mm) from the nearest edge of the member, the pipe shall be protected by shield plates. Protective shield plates shall be a minimum of 0.062-inch-thick (1.6mm) steel, shall cover the area of the pipe where the member is notched or bored and shall extend a minimum of 2 inches (51mm) above sole plates and below top plates.