Town of Philipstown
Code Enforcement Office
238 Main Street, PO Box 155
Cold Spring, NY 10516

Office (845) 265- 5202 Fax (845) 265-2687

SOLID FUEL-BURNING & GAS HEATING APPLIANCES

Masonry Fireplace, Fireplace Insert, Pellet Stove, Gas Stove or Gas Log Set, Wood Stove

The New York State Uniform Fire Prevention and Building Code requires' a building permit to be issued for the construction, modification or installation of any Masonry Fireplace, Fireplace Insert, Pellet Stove, Gas Stove or Gas Log Set or Wood Stove, Boiler or Furnace.

1. **BUILDING/ZONING PERMIT APPLICATION** - The applications must be filled out in sufficient detail and signed by the owner of the property or by an authorized agent/contractor with the submission of the **AGENT AUTHORIZATION FORM** or other legal instrument authorizing the applicant to sign for and obtain the Building Permit.

2. **CONSTRUCTION DRAWINGS** - Submit two (2) construction drawings showing the installation of the proposed appliance located in the room. Show the dimensions of the appliance from the ceiling or roof rafters, walls and floor and the type of construction each is or Supply a copy of the manufacturers' installation instruction for the appliance and chimney/pipe if available.

3. **PUTNAM COUNTY LICENSED CONTRACTORS** a copy of the Putnam County license to be submitted and shown on the building permit application.

4. **WORKERS' COMPENSATION and EMPLOYEE LIABILITY** – Proof of insurance must be submitted from the contractor at the time of application. **ACORD FORMS** are not acceptable as proof of insurance.

    - Contractor with The State Insurance Fund must submit form U26.3 and DB-120.1.
    - Contractor with Private Insurance must submit form C-105.2 and DB-120.1.
    - Contractor who is self insured must submit form SI-12 or GSI-105.2 and DB-155.
    - Contractors who are exempt from Workers' Compensation must submit form CE-200.
    - An owner applying for the permit who occupies the residence may submit form BP-1 affidavit.

5. **INSPECTIONS** – Review required inspections list attached.

6. **SMOKE and CARBON MONOXIDE ALARM REQUIREMENTS** – See Attached Sheet

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Required Inspections

Masonry Fireplace, Fireplace Insert, Pellet Stove, Gas Stove or Gas Log Set or Wood Stove

Masonry Fireplace

- Footing Inspection (of the forms before concrete is placed)
- Firebox inspection (hearth, firebox, fresh air intake, smoke chamber)
- Final Inspection

Fireplace inserts:

- A letter of certification from licensed chimney sweep for a fireplace insert without a chimney liner.
- A Final Inspection when the installation is complete.

Factory-built fireplaces:

- Inspection of the unit and chimney or vent has been installed and before being enclosed by drywall or decorative shrouds and trim.
- A final inspection when the installation is complete.

Wood stoves:

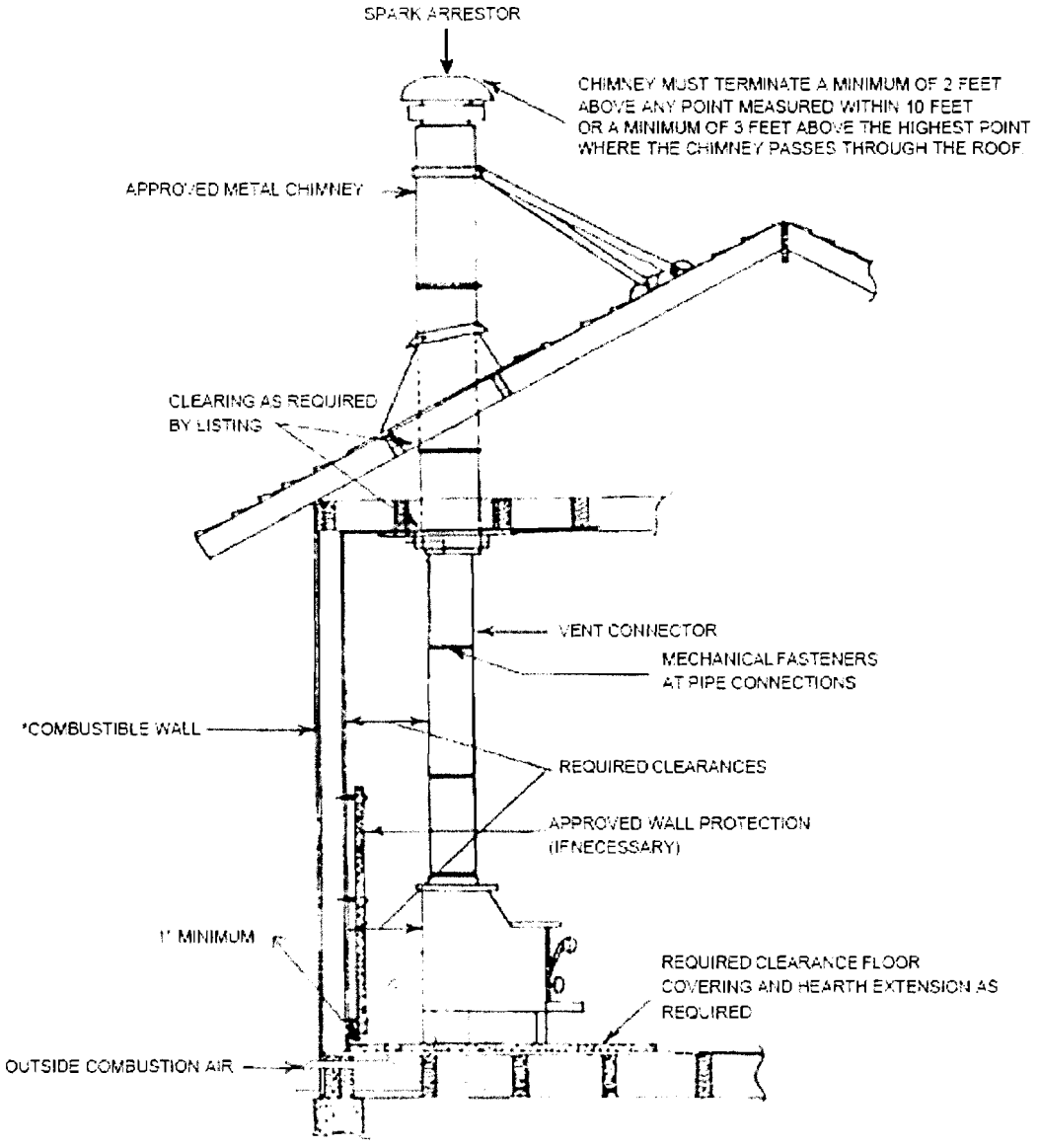
- Inspection of the unit and chimney or vent has been installed and before being enclosed by drywall.
- A final inspection when the installation is complete.

Gas or Wood Boiler and Furnace –

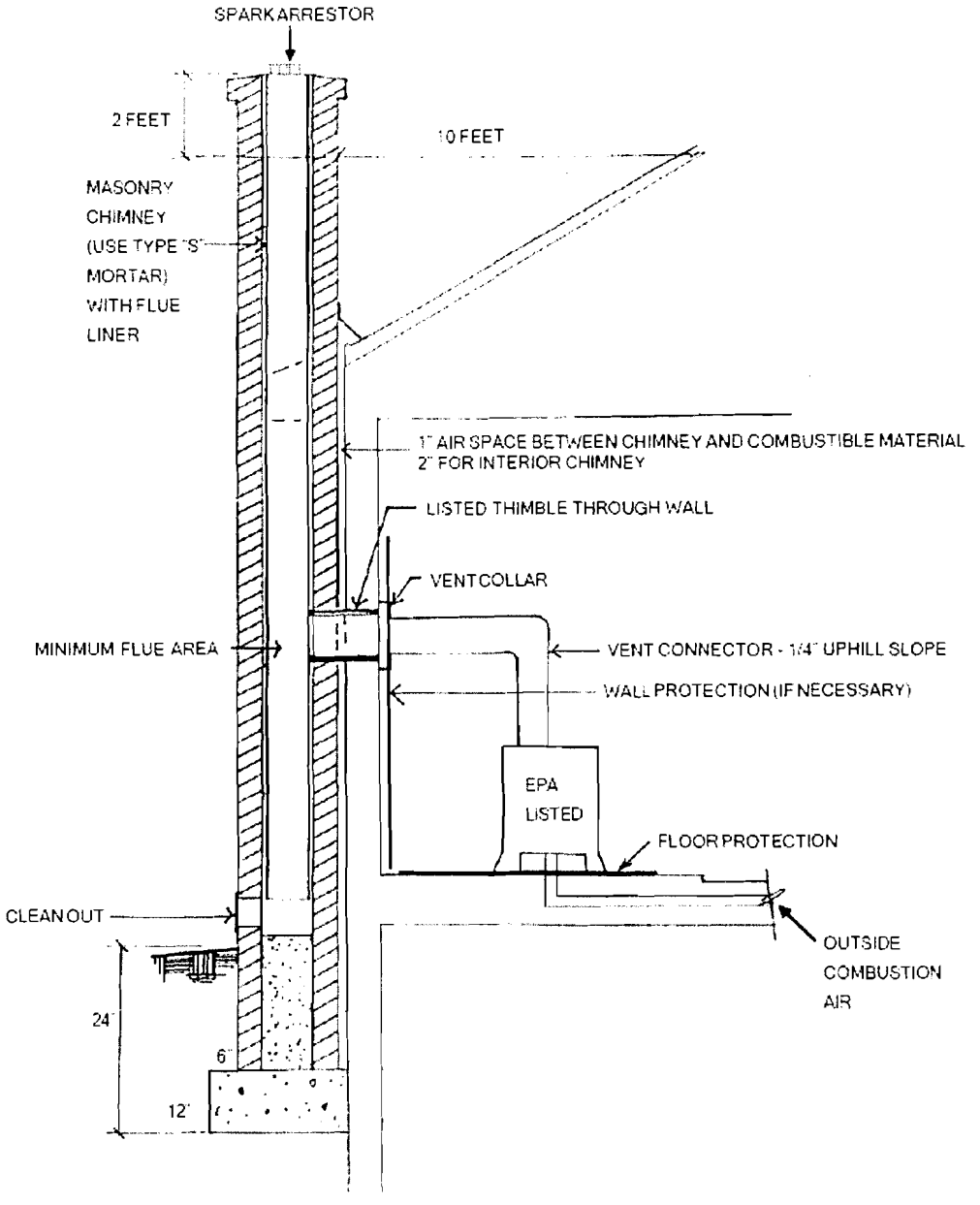
- Inspection of the unit and chimney or vent has been installed and before being enclosed by drywall.
- A final inspection when the installation is complete.
- Electrical, Plumbing and Mechanical Inspection.
- A final inspection when the installation is complete.

Pellet stoves, gas stoves and gas log sets:

- A final inspection when the installation is complete



LISTED "FACTORY BUILT" CHIMNEY



MASONRY CHIMNEY

CHAPTER R10
CHIMNEYS AND FIREPLACES

§RR1001
MASONRY FIREPLACES

§RR1001.1 General. Masonry fireplaces shall be constructed in accordance with this section and the applicable provisions of Chapter 3 and Chapter 4.

TABLE RR1001.1
SUMMARY OF REQUIREMENTS FOR MASONRY FIREPLACES AND CHIMNEYS

ITEM	LETTER[a]	REQUIREMENTS
Hearth slab thickness	A	4"
Hearth extension (each side of opening)	B	8" fireplace opening < 6 square foot. 12" fireplace opening ≥ 6 square foot.
Hearth extension (front of opening)	C	16" fireplace opening < 6 square foot. 20" fireplace opening ≥ 6 square foot.
Hearth slab reinforcing	D	Reinforced to carry its own weight and all imposed loads.
Thickness of wall of firebox	E	10" solid brick or 8" where a firebrick lining is used. Joints in firebrick 1/4" maximum.
Distance from top of opening to throat	F	8"
Smoke chamber wall thickness Unlined walls	G	6" 8"
Chimney Vertical reinforcing[b]	H	Four No. 4 full-length bars for chimney up to 40" wide. Add two No. 4 bars for each additional 40" or fraction of width or each additional flue.
Horizontal reinforcing	J	1/4" ties at 18" and two ties at each bend in vertical steel.
Bond beams	K	No specified requirements.
Fireplace lintel	L	Noncombustible material.
Chimney walls with flue lining	M	Solid masonry units or hollow masonry units grouted solid with at least 4 inch nominal thickness.
Distances between adjacent flues	-	See §RR1001.7.
Effective flue area (based on area of fireplace opening)	P	See §RR1001.10.
Clearances: Combustible material Mantel and trim Above roof	R	 See §RR1001.11.1 and §RR1001.11.3. See §RR1001.11.4, Exception 4. 3' at roofline and 2' at 10'.
Anchorage[b] Strap Number Embedment into chimney Fasten to Bolts	S	 3/16" × 1" Two 12" hooked around outer bar with 6" extension. 4 joists Two 1/2" diameter.
Footing Thickness Width	T	 12" min. 6" each side of fireplace wall.

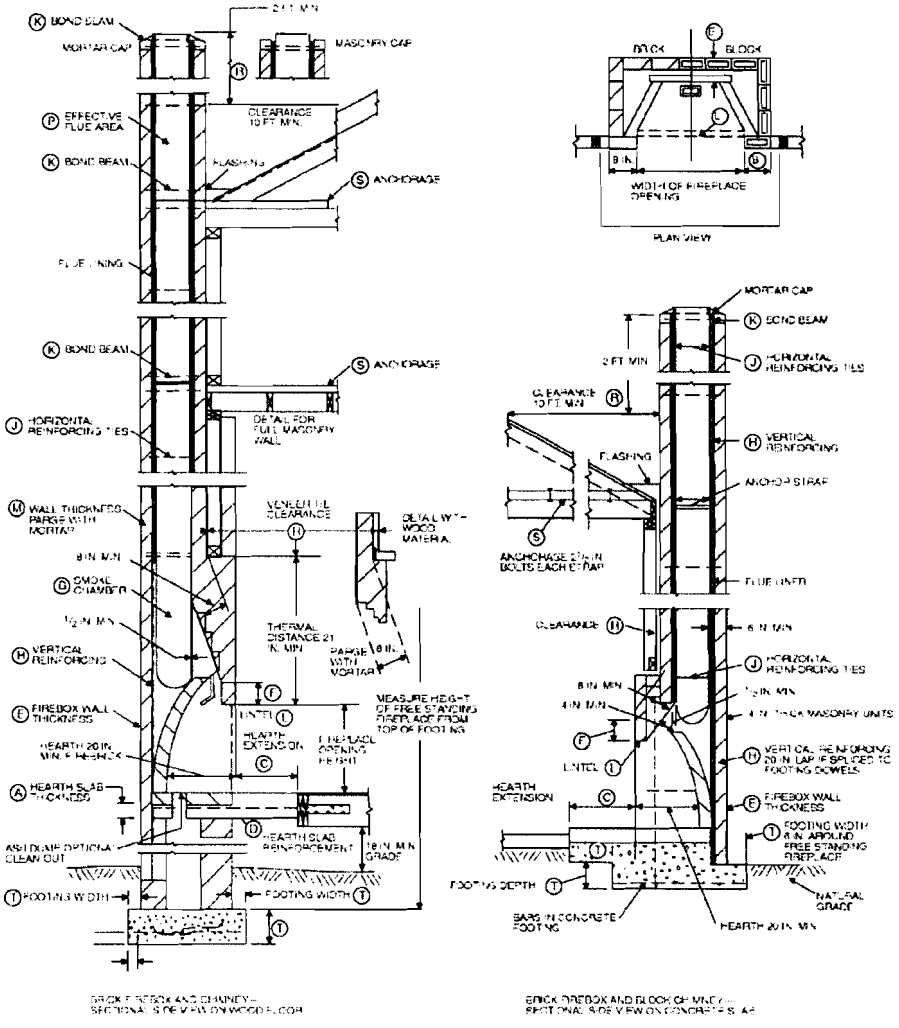
For SI: 1 inch = 25.4 mm,
1 foot = 304.8 mm,
1 square foot = 0.0929 m^2.

NOTE: This table provides a summary of major requirements for the construction of masonry chimneys and fireplaces. Letter references are to [illegible], which shows examples of typical construction. This table does not cover all requirements, nor does it cover all aspects of the indicated requirements. For the actual mandatory requirements of the code, see the indicated section of text.

a. The letters refer to [illegible].

b. Not required in Seismic Design Category A, B or C.

FIGURE RR1001.1
FIREPLACE AND CHIMNEY DETAILS



For SI: 1 inch = 25.4 mm,

1 foot = 304.8 mm.

§RR1001.2 Footings and foundations. Footings for masonry fireplaces and their chimneys shall be constructed of concrete or solid masonry at least 12 inches (305 mm) thick and shall extend at least 6 inches (152 mm) beyond the face of the fireplace or foundation wall on all sides. Footings shall be founded on natural, undisturbed earth or engineered fill below frost depth. In areas not subjected to freezing, footings shall be at least 12 inches (305 mm) below finished grade.

§RR1001.2.1 Ash dump cleanout. Cleanout openings located within foundation walls below fireboxes, when provided, shall be equipped with ferrous metal or masonry doors and frames constructed to remain tightly closed except when in use. Cleanouts shall be accessible and located so that ash removal will not create a hazard to combustible materials.

§RR1001.3 Seismic reinforcing. Masonry or concrete chimneys in Seismic Design Category D_0, D_1 or D_2 shall be reinforced. Reinforcing shall conform to the requirements set forth in [illegible] and [illegible], Grouted Masonry. NY

§RR1001.3.1 Vertical reinforcing. For chimneys up to 40 inches (1016 mm) wide, four No. 4 continuous vertical bars shall be placed between wythes of solid masonry or within the cells of hollow unit masonry and grouted in accordance with [illegible]. Grout shall be prevented from bonding with the flue liner so that the flue liner is free to move with thermal expansion. For chimneys more than 40 inches (1016 mm) wide, two additional No. 4 vertical bars shall be provided for each additional flue incorporated into the chimney or for each additional 40 inches (1016 mm) in width or fraction thereof.

§RR1001.3.2 Horizontal reinforcing. Vertical reinforcement shall be placed within $^1/_4$-inch (6 mm) ties, or other reinforcing of equivalent net cross-sectional area, placed in the bed joints according to [illegible] at a minimum of every 18 inches (457 mm) of vertical height. Two such ties shall be installed at each bend in the vertical bars.

§RR1001.4 Seismic anchorage. Masonry or concrete chimneys in Seismic Design Categories D_0, D_1 or D_2 shall be anchored at each floor, ceiling or roof line more than 6 feet (1829 mm) above grade, except where constructed completely within the exterior walls. Anchorage shall conform to the requirements of [illegible]. NY

§RR1001.4.1 Anchorage. Two $^3/_{16}$-inch by 1-inch (5 mm by 25 mm) straps shall be embedded a minimum of 12 inches (305 mm) into the chimney. Straps shall be hooked around the outer bars and extend 6 inches (152 mm) beyond the bend. Each strap shall be fastened to a minimum of four floor ceiling or floor joists or rafters with two $^1/_2$-inch (13 mm) bolts.

§RR1001.5 Firebox walls. Masonry fireboxes shall be constructed of solid masonry units, hollow masonry units grouted solid, stone or concrete. When a lining of firebrick at least 2 inches (51 mm) thick or other approved lining is provided, the minimum thickness of back and side walls shall each be 8 inches (203 mm) of solid masonry, including the lining. The width of joints between firebricks shall not be greater than $^1/_4$ inch (6 mm). When no lining is provided, the total minimum thickness of back and side walls shall be 10 inches (254 mm) of solid masonry. Firebrick shall conform to ASTM C 27 or C 1261 and shall be laid with medium duty refractory mortar conforming to ASTM C 199.

§RR1001.5.1 Steel fireplace units. Installation of steel fireplace units with solid masonry to form a masonry fireplace is permitted when installed either according to the requirements of their listing or according to the requirements of this section. Steel fireplace units incorporating a steel firebox lining, shall be constructed with steel not less than $^1/_4$ inch (6 mm) thick, and an air circulating chamber which is ducted to the interior of the building. The firebox lining shall be encased with solid masonry to provide a total thickness at the back and sides of not less than 8 inches (203 mm), of which not less than 4 inches (102 mm) shall be of solid masonry or concrete. Circulating air ducts used with steel fireplace units shall be constructed of metal or masonry.

§RR1001.6 Firebox dimensions. The firebox of a concrete or masonry fireplace shall have a minimum depth of 20 inches (508 mm). The throat shall not be less than 8 inches (203 mm) above the fireplace opening. The throat opening shall not be less than 4 inches (102 mm) deep. The cross-sectional area of the passageway above the firebox, including the throat, damper and smoke chamber, shall not be less than the cross-sectional area of the flue.

Exception: Rumford fireplaces shall be permitted provided that the depth of the fireplace is at least 12 inches (305 mm) and at least one-third of the width of the fireplace opening, that the throat is at least 12 inches (305 mm) above the lintel and is at least $^1/_{20}$ the cross-sectional area of the fireplace opening.

§RR1001.7 Lintel and throat. Masonry over a fireplace opening shall be supported by a lintel of noncombustible material. The minimum required bearing length on each end of the fireplace opening shall be 4 inches (102 mm). The fireplace throat or damper shall be located a minimum of 8 inches (203 mm) above the lintel.

§RR1001.7.1 Damper. Masonry fireplaces shall be equipped with a ferrous metal damper located at least 8 inches (203 mm) above the top of the fireplace opening. Dampers shall be installed in the fireplace or the chimney venting the fireplace, and shall be operable from the room containing the fireplace.

§RR1001.8 Smoke chamber. Smoke chamber walls shall be constructed of solid masonry units, hollow masonry units grouted solid, stone or concrete. Corbelling of masonry units shall not leave unit cores exposed to the inside of the smoke chamber. When a lining of firebrick at least 2 inches (51 mm) thick, or a lining of vitrified clay at least $^5/_8$ inch (16 mm) thick, is provided, the total minimum thickness of front, back and side walls shall be 6 inches (152 mm) of solid masonry, including the lining. Firebrick shall conform to ASTM C 27 or C 1261 and shall be laid with medium duty refractory mortar conforming to ASTM C 199. Where no lining is provided, the total minimum thickness of front, back and side walls shall be 8 inches (203 mm) of solid masonry. When the inside surface of the smoke chamber is formed by corbeled masonry, the inside surface shall be parged smooth.

§RR1001.8.1 Smoke chamber dimensions. The inside height of the smoke chamber from the fireplace throat to the beginning of the flue shall not be greater than the inside width of the fireplace opening. The inside surface of the smoke chamber shall not be inclined more than 45 degrees (0.79 rad) from vertical when prefabricated smoke chamber linings are used or when the smoke chamber walls are rolled or sloped rather than corbeled. When the inside surface of the smoke chamber is formed by corbeled

masonry, the walls shall not be corbeled more than 30 degrees (0.52 rad) from vertical.

§RR1001.9 Hearth and hearth extension. Masonry fireplace hearths and hearth extensions shall be constructed of concrete or masonry, supported by noncombustible materials, and reinforced to carry their own weight and all imposed loads. No combustible material shall remain against the underside of hearths and hearth extensions after construction.

§RR1001.9.1 Hearth thickness. The minimum thickness of fireplace hearths shall be 4 inches (102 mm).

§RR1001.9.2 Hearth extension thickness. The minimum thickness of hearth extensions shall be 2 inches (51 mm).

Exception: When the bottom of the firebox opening is raised at least 8 inches (203 mm) above the top of the hearth extension, a hearth extension of not less than $^3/_8$-inch-thick (10 mm) brick, concrete, stone, tile or other approved noncombustible material is permitted.

§RR1001.10 Hearth extension dimensions. Hearth extensions shall extend at least 16 inches (406 mm) in front of and at least 8 inches (203 mm) beyond each side of the fireplace opening. Where the fireplace opening is 6 square feet (0.6 m^2) or larger, the hearth extension shall extend at least 20 inches (508 mm) in front of and at least 12 inches (305 mm) beyond each side of the fireplace opening.

§RR1001.11 Fireplace clearance. All wood beams, joists, studs and other combustible material shall have a clearance of not less than 2 inches (51 mm) from the front faces and sides of masonry fireplaces and not less than 4 inches (102 mm) from the back faces of masonry fireplaces. The air space shall not be filled, except to provide fire blocking in accordance with [illegible].

Exceptions:

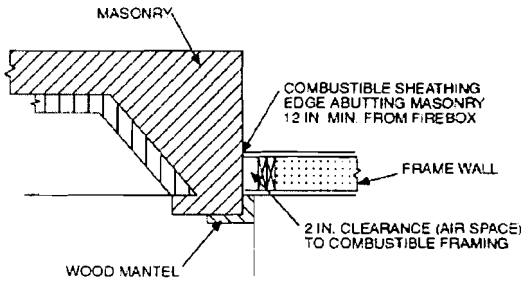
1. Masonry fireplaces listed and labeled for use in contact with combustibles in accordance with UL 127 and installed in accordance with the manufacturer's installation instructions are permitted to have combustible material in contact with their exterior surfaces.

2. When masonry fireplaces are part of masonry or concrete walls, combustible materials shall not be in contact with the masonry or concrete walls less than 12 inches (305 mm) from the inside surface of the nearest firebox lining.

3. Exposed combustible trim and the edges of sheathing materials such as wood siding, flooring and drywall shall be permitted to abut the masonry fireplace side walls and hearth extension in accordance with [illegible], provided such combustible trim or sheathing is a minimum of 12 inches (305 mm) from the inside surface of the nearest firebox lining.

4. Exposed combustible mantels or trim may be placed directly on the masonry fireplace front surrounding the fireplace opening providing such combustible materials are not placed within 6 inches (152 mm) of a fireplace opening. Combustible material within 12 inches (306 mm) of the fireplace opening shall not project more than $^1/_8$ inch (3 mm) for each 1-inch (25 mm) distance from such an opening.

FIGURE RR1001.11
CLEARANCE FROM COMBUSTIBLES



For SI: 1 inch = 25.4 mm.

§RR1001.12 Fireplace fireblocking. Fireplace fireblocking shall comply with the provisions of [illegible].

SOLID FUEL-BURNING & GAS HEATING APPLIANCES

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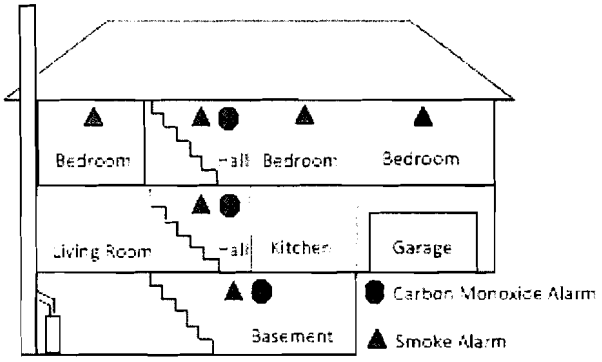
SMOKE and CARBON MONOXIDE ALARM REQUIREMENTS



Whenever interior alterations, repairs, additions or conversions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be provided with smoke and carbon monoxide alarms, as required for new dwellings.

The required smoke and carbon monoxide alarms must be hardwired (120 volt) with battery backup and interconnected. The alarms shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

Exception: Where smoke and carbon monoxide alarms are missing on the second floor, newly installed smoke and carbon monoxide alarms shall be permitted to be battery operated.

This exception only applies when there is not any work associated with the second floor.

Smoke alarms are required to 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 cellars, but not including crawl spaces and uninhabitable attics.

Carbon monoxide alarms are required to be installed in the following locations:

1. On any story of a dwelling unit or sleeping room where fuel-fired appliances and equipment, solid-fuel burning appliances and equipment, fireplaces or attached garages are located.
2. Combination smoke and carbon monoxide alarms are permitted, provided the alarm is listed for such use and has distinctly different alarm signals for smoke or carbon monoxide alarm activation.