260.925.6449 p | 260.920.3342 f | 210 S Cedar St / PO Box 506 Auburn, IN 46706 | bpd@ci.auburn.in.us

2020 Indiana Residential Code

R302.11 Fireblocking: In combustible construction, fireblocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form an effective fire barrier between stories, and between a top *story* and roof space.

Fireblocking shall be provided in wood-frame construction in the following locations:

1. In concealed spaces of stud walls and partitions, including furred spaces and parallel rows of studs or staggered studs as follows:
    1.1 Vertically at the ceiling and floor levels
    1.2 Horizontally at intervals not exceeding 10 feet (3048 mm)
2. At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cove ceilings.
3. In concealed spaces between stair stringers at the top and bottom of the run. Enclosed spaces under stairs shall comply with Section R302.7
    a. **Section R302.7 Under-stair protection**: Enclosed accessible space under stairs shall have walls, under-stair surface and any soffits protected on the enclosed side with ½" (12.7 mm) gypsum board
4. At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion. The material filling this annular space shall not be required to meet the ASTM E 136 requirements shall have an ignition point at or above that of white pine wood, 350 degrees F (177 degrees C), and where surrounding electrical cables shall meet the requirements of E3705.4.4.
5. For the fireblocking of chimneys and fireplaces, see Section R1003.19
    a. **Section R1003.9 Termination:** Chimneys shall extend at least 2 feet (610 mm) higher than any portion of a building within 10 feet (3048 mm) but shall not be less than 3 feet (914 mm) above the highest point where the chimney passes through the roof.
        i. **R1003.9.1 Chimney caps**: Masonry chimneys shall have a concrete, metal or stone cap, sloped to shed water, a drip edge and a caulked bond break around any flue liners in accordance with ASTM C 1283
        ii. **R1003.9.2 Spark arrestors**: Where a spark arrestor is installed on a masonry chimney, the spark arrestor shall meet all of the following requirements.
            1. The net free area of the arrestor shall not be less than four times the net free area of the outlet of the chimney flue it serves
            2. The arrestor screen shall have heat and corrosion resistance equivalent to 19-gage galvanized steel or 24-gage stainless steel
            3. Openings shall not permit the passage of spheres have a diameter greater than ½" (13 mm) nor the passage of spheres having a diameter less than 3/8" (10 mm)
            4. The spark arrestor shall be accessible for cleaning and the screen or chimney cap shall be removable to allow for cleaning of the chimney flue.
        iii. **R1003.9.3 Rain caps**: Where a masonry or metal ran cap is installed on a masonry chimney, the net free area under the cap shall not be less than four times the net free area of the outlet of the chimney flue it serves.
6. Fireblocking of cornices of a two-family *dwelling* is required at the line of *dwelling unit* separation.

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R302.11.1 Fireblocking materials: Except as provided in R302.11, Item 4, fireblocking shall consist of the following materials

1. Two-inch (51 mm) nominal lumber
2. Two thicknesses of 1-inch (25.4 mm) nominal lumber with broken lap joints
3. One thickness of 23/32-inch (18.3 mm) wood structural panels with joints backed by 23/32-inch (18.3 mm) wood structural panels
4. One thickness of 3/4-inch (19.1 mm) particleboard with joints backed by 3/4-inch (19.1 mm) particleboard
5. One-half inch (12.7 mm) gypsum board
6. One-quarter inch (6.4 mm) cement-based millboard
7. Batts or blankets of mineral wool or glass fiber or other *approved* materials installed in such a manner as to be securely retained in place
8. Cellulose insulation installed as tested for the specific application

R302.11.1.1 Batts or blankets of mineral or glass fiber: Batts or blankets of mineral or glass fiber or other *approved* nonrigid materials shall be permitted for compliance with the 10-foot (3048 mm) horizontal fireblocking in walls constructed using parallel rows of studs and staggered studs

R302.11.1.2 Unfaced fiberglass: Unfaced fiberglass batt insulation used as fireblocking shall fill the entire cross section of the wall cavity to a minimum height of 16 inches (406 mm) measured vertically. When piping, conduit or similar obstructions are encountered, the insulation shall be packed tightly around the obstruction

R302.11.1.3 Loose-fill insulation material: Loose-fill insulation material shall not be used as a fireblock unless specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and to retard the spread of fire and hot gases.

R302.11.2 Fireblocking integrity: The integrity of all fireblocks shall be maintained.

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2014 Indiana Building Code

718.2 Fireblocking. In combustible construction, fireblocking shall be installed to cut off concealed draft openings (both vertical and horizontal) and shall form an effective barrier between floors, between a top story and a roof or attic space. Fireblocking shall be installed in the locations specified in Sections 718.2.2 through 718.2.7.

718.2.1 Fireblocking materials. Fireblocking shall consist of the following materials:

1. Two-inch (51 mm) nominal lumber.

2. Two thicknesses of 1-inch (25 mm) nominal lumber with broken lap joints.

3. One thickness of 0.719-inch (18.3 mm) wood structural panels with joints backed by 0.719-inch (18.3 mm) wood structural panels.

4. One thickness of 0.75-inch (19.1 mm) particleboard with joints backed by 0.75-inch (19 mm) particleboard.

5. One-half inch (12.7 mm) gypsum board.

6. One-fourth inch (6.4 mm) cement-based millboard.

7. Batts or blankets of mineral wool, mineral fiber or other approved materials installed in such a manner as to be securely retained in place.

8. Cellulose insulation installed as tested for the specific application.

718.2.1.1 Batts or blankets of mineral wool or mineral fiber. Batts or blankets of mineral wool or mineral fiber or other approved nonrigid materials shall be permitted for compliance with the 10-foot (3048 mm) horizontal fireblocking in walls constructed using parallel rows of studs or staggered studs.

718.2.1.2 Unfaced fiberglass. Unfaced fiberglass batt insulation used as fireblocking shall fill the entire cross section of the wall cavity to a minimum height of 16 inches (406 mm) measured vertically. When piping, conduit or similar obstructions are encountered, the insulation shall be packed tightly around the obstruction.

718.2.1.3 Loose-fill insulation material. Loose-fill insulation material, insulating foam sealants and caulk materials shall not be used as a fireblock unless specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and to retard the spread of fire and hot gases.

718.2.1.4 Fireblocking integrity. The integrity of fireblocks shall be maintained.

718.2.1.5 Double stud walls. Batts or blankets of mineral or glass fiber or other approved nonrigid materials shall be allowed as fireblocking in walls constructed using parallel rows of studs or staggered studs.

718.2.2 Concealed wall spaces. Fireblocking shall be provided in concealed spaces of stud walls and partitions, including furred spaces, and parallel rows of studs or staggered studs, as follows:

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1. Vertically at the ceiling and floor levels.

2. Horizontally at intervals not exceeding 10 feet (3048 mm).

718.2.3 Connections between horizontal and vertical spaces. Fireblocking shall be provided at interconnections between concealed vertical stud wall or partition spaces and concealed horizontal spaces created by an assembly of floor joists or trusses, and between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, cove ceilings and similar locations.

718.2.4 Stairways. Fire blocking shall be provided in concealed spaces between stair stringers at the top and bottom of the run and between studs along and in line with the run of stairs, if the walls under the stairs are unfinished, and shall comply with the requirements of Section 1009.9.3.

718.2.5 Ceiling and floor openings. Where required by Section 712.1.7, Exception 1 of Section 714.4.1.2 or Section 714.4.2, fireblocking of the annular space around vents, pipes, ducts, chimneys and fireplaces at ceilings and floor levels shall be installed with a material specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and resist the free passage of flame and the products of combustion.

718.2.5.1 Factory-built chimneys and fireplaces. Factory-built chimneys and fireplaces shall be fireblocked in accordance with UL 103 and UL 127.

718.2.6 Exterior wall coverings. Fireblocking shall be installed within concealed spaces of exterior wall coverings and other exterior architectural elements where permitted to be of combustible construction as specified in Section 1406 or where erected with combustible frames. Fireblocking shall be installed at maximum intervals of 20 feet (6096 mm) in either dimension so that there will be no concealed space exceeding 100 square feet (9.3 m) between fireblocking. Where wood furring strips are used, they shall be of approved wood of natural decay resistance or preservative-treated wood. If noncontinuous, such elements shall have closed ends, with at least 4 inches (102 mm) of separation between sections.

Exceptions:

1. Fireblocking of cornices is not required in single-family dwellings. Fireblocking of cornices of a two-family dwelling is required only at the line of dwelling unit separation.

2. Fireblocking shall not be required where the exterior wall covering is installed on noncombustible framing and the face of the exterior wall covering exposed to the concealed space is covered by one of the following materials:

2.1. Aluminum having a minimum thickness of 0.019 inch (0.5 mm).

2.2. Corrosion-resistant steel having a base metal thickness not less than 0.016 inch (0.4 mm) at any point.

2.3. Other approved noncombustible materials.

3. Fireblocking shall not be required where the exterior wall covering has been tested in accordance with, and complies with the acceptance criteria of, NFPA 285. The exterior wall covering shall be installed as tested in accordance with NFPA 285.

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718.2.7 Concealed sleeper spaces. Where wood sleepers are used for laying wood flooring on masonry or concrete fire-resistance-rated floors, the space between the floor slab and the underside of the wood flooring shall be filled with an approved material to resist the free passage of flame and products of combustion or fireblocked in such a manner that there will be no open spaces under the flooring that will exceed 100 square feet (9.3 m sq.) in area and such space shall be filled solidly under permanent partitions so that there is no communication under the flooring between adjoining rooms.

Exceptions:

1. Fireblocking is not required for slab-on-grade floors in gymnasiums.

2. Fireblocking is required only at the juncture of each alternate lane and at the ends of each lane in a bowling facility.

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