

Stone and Masonry Veneer, General

R703.8 Stone and masonry veneer, general. All stone and masonry veneer shall be installed in accordance with this chapter, Table R703.3(1) and Figure R703.8. These veneers installed over a backing of wood or cold-formed steel shall be limited to the first story above grade plane and shall not exceed 5 in. in thickness.

Exceptions:

1. For all buildings in Seismic A, B, and C, exterior stone veneer, as specified in Table R703.8(1), with a backing of wood or steel framing shall be permitted to the height specified in Table R703.8(1) above a noncombustible foundation.

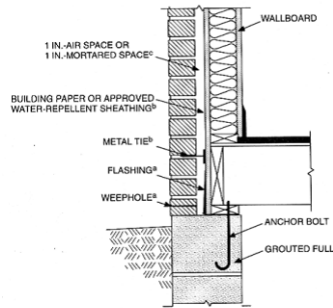
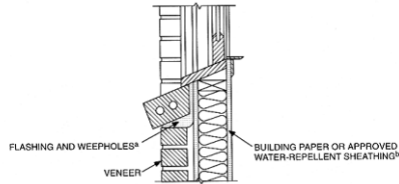


FIGURE R703.7
MASONRY VENEER WALL DETAILS
(continued)

R703.8.1 Interior veneer support. Veneers used as interior wall finishes shall be permitted to be supported on wood or cold-formed steel floors that are designed to support the loads imposed.

TABLE R703.7.3.1
ALLOWABLE SPANS FOR LINTELS SUPPORTING
MASONRY VENEER^{a,b,c}

SIE OF STEEL ANGLE ^{a,c} (inches)	NO STORY ABOVE	ONE STORY ABOVE	TWO STORIES ABOVE	NO. OF 1/2" OR EQUIVALENT REINFORCING BARS ^c
3 x 3 x 1/4	6'-0"	3'-6"	3'-0"	1
4 x 3 x 1/4	8'-0"	6'-0"	4'-6"	1
5 x 3 1/2 x 5/16	10'-0"	8'-0"	6'-0"	2
6 x 3 1/2 x 5/16	14'-0"	9'-6"	7'-0"	2
2-6 x 3 1/2 x 5/16	20'-0"	12'-0"	9'-6"	4

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. Long leg of the angle shall be placed in a vertical position.
- b. Depth of reinforced lintels shall not be less than 8in. and all cells of hollow masonry lintels shall be grouted solid. Reinforcing bars shall extend not less than 8in into the support.
- c. Steel members indicated are adequate typical examples; other steel members meeting structural design requirements may be used.
- d. Either steel angle or reinforcing lintel shall span opening

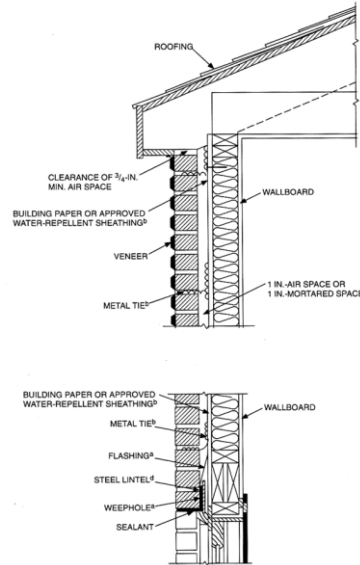


FIGURE R703.8—continued
MASONRY VENEER WALL DETAILS

- For SI: 1 inch = 25.4 mm.
- a. See Sections R703.7.5 and R703.7.6.
 - b. See Sections R703.2 and R703.7.4.
 - c. See Sections R703.7.4.2 and R703.7.4.3.
 - d. See Section R703.7.2.1

R703.8.2 Exterior veneer support. Exterior masonry veneers having an installed weight of 40 pounds per sq. ft. or less shall be permitted to be supported on wood or cold-formed steel construction. When masonry veneer supported by wood or cold-formed steel construction adjoins masonry veneer supported by the foundation, there shall be a movement joint between the veneer supported by the wood or cold-formed steel construction and the veneer supported by the foundation. The wood or cold-formed steel construction supporting the masonry veneer shall be designed to limit the deflection to 1/600 of the span for the supporting members. The design of the wood or cold-formed steel construction shall consider the weight of the veneer and any other loads.

R703.8.2.1 Support by steel angle. A minimum 6in. by 4in. by 5/16in. steel angle, with the long leg placed

vertically, shall be anchored to double 2in. by 4in. wood studs at a maximum on center spacing of 16in. Anchorage of the steel angle at every double stud spacing shall be a minimum of two 7/16 in. diameter by 4 in. lag screws. The steel angle shall have a minimum clearance to underlying construction of 1/16in. A minimum of two-thirds the width of the masonry veneer thickness shall bear on the steel angle. Flashing and weep holes shall be located in the masonry veneer wythe in accordance to Figure R703.8.2.1. The maximum height of masonry veneer above the steel angle support shall be 12ft.- 8in. The air space separating the masonry veneer from the wood backing shall be in accordance with Sections R703.8.4 and R703.7.8.2. The method of support for the masonry veneer on wood construction shall be constructed in accordance with Figure R703.8.2.1.

The maximum slope of the roof construction shall be not more than 7:12. Roof construction with slopes with greater than 7:12 but not more than 12:12, shall have stops of a minimum 3in. by 3in. by 1/4 in. steel plate welded to the angle at 24in. on center along the angle or as approved by the building official.

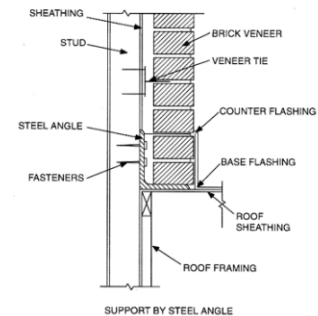
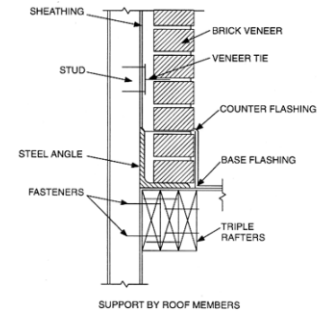


FIGURE R703.7.1
EXTERIOR MASONRY VENEER SUPPORT BY WOOD CONSTRUCTION

R703.8.2.2 Support by roof construction.

A steel angle shall be placed directly on top of the roof construction. The roof supporting construction for the steel angle shall consist of a minimum of three 2in. by 6in. wood members. The wood member abutting the vertical wall stud construction shall be anchored with a minimum of three 5/8in. diameter by 5in. lag screws to every wood stud spacing. Each additional roof member shall be anchored by the use of two 10d nails at every wood stud spacing. A minimum of two-thirds the width of the masonry veneer thickness shall bear on the steel angle. Flashing and weep holes shall be located in the masonry veneer wythe in accordance with Figure R703.8.2.2. The maximum height of the masonry veneer above the steel angle support shall be 12ft.-8in. The air space separating the masonry veneer from the wood backing shall be in accordance with Sections R703.8.4 and R703.8.4.2. The support of the masonry veneer on wood construction shall be constructed in accordance with Figure R703.8.2.2.2. The maximum slope of the roof construction shall be not more than 7:12. Roof construction with slopes with greater than 7:12 but not more than 12:12, shall have stops of a minimum 3in. by 3in. by 1/4in. steel plate welded to the angle at 24in. on center along the angle or as approved by the building official.

R703.8.3 Lintels. Masonry veneer shall not support any vertical load other than the dead load of the veneer above. Veneer above openings shall be supported on lintels of noncombustible materials. The lintels shall have a length of bearing of not less than 4in. Steel lintels shall be shop coated with a rust-inhibitive paint, except for lintels made of corrosion-resistant steel or steel treated with coatings to provide corrosion resistance. Construction of openings shall comply with either Section R703.7.3.1 or R703.7.3.2.

R703.8.4 Anchorage. Masonry veneer shall be anchored to the supporting wall with corrosion-resistant metal ties embedded in mortar or grout and extending into the veneer a minimum 1 1/2in. with not less than 5/8in. mortar or grout cover to the outside face. Masonry veneer shall conform to

Table R703.8.4.

R703.8.4.1 Size and spacing. Veneer ties, if strand wire, shall not be less in thickness than No. 9 U.S. gage wire and shall have a hook embedded in the mortar joint, or if sheet metal, shall be not less than No. 22 U.S. gage by 7/8in corrugated. Each tie shall be spaced not support more than 2.67 sq. ft. of wall area and shall be spaced not more than 32in. on center horizontally and 24in. on center vertically.

R703.8.4.1.1 Veneer ties around wall openings. Additional metal ties shall be provided around all wall openings greater than 16in. in either dimension. Metal ties around the perimeter of openings shall be spaced not more than 3ft. on center and placed within 12in. of the wall opening.

R703.8.4.2 Grout fill. As an alternate to the air space required by R703.7.4 grout shall be permitted to fill the air space. When the air space is filled with grout, a weather-resistant barrier is required over studs or sheathing. When filling the air space, replacing the sheathing and water-resistive barrier with a wire mesh or an approved water-resistive barrier-backed reinforcement attached directly to the studs is permitted.

R703.8.5 Flashing. Flashing shall be located beneath the first course of masonry above finished ground level above the foundation wall or slab and at other points of support, including structural floors, shelf angles and lintels when masonry veneers are designed in accordance with Section R703.7. See Section R703.8 for additional requirements.

R703.8.6 Weepholes. Weepholes shall be provided in the outside wythe of masonry walls at a maximum spacing of 33in. on center. Weepholes shall not be less than 3/16in. in diameter. Weepholes shall be located immediately above the flashing.

Stone and Masonry Veneer

2018 KRC



City of Richmond

Department of Codes Enforcement
239 West Main Street
Richmond, KY 40475

(859) 625-6404

Monday – Friday
8:00 AM to 4:30 PM