

R703.5.3 Horizontal wood siding. Horizontal lap siding shall be installed in accordance with the manufacturer's recommendations. Where there are no recommendations the siding shall be lapped not less than 1 inch (25 mm), or $\frac{1}{2}$ inch (12.7 mm) if rabbeted, and shall have the ends caulked, covered with a batten or sealed and installed over a strip of flashing.

R703.6 Wood shakes and shingles. Wood shakes and shingles shall conform to CSSB *Grading Rules for Wood Shakes and Shingles*.

R703.6.1 Application. Wood shakes or shingles shall be applied either single course or double course over nominal $\frac{1}{2}$ -inch (12.7 mm) wood-based sheathing or to furring strips over $\frac{1}{2}$ -inch (12.7 mm) nominal nonwood sheathing. A water-resistive barrier shall be provided over all sheathing, with horizontal overlaps in the membrane of not less than 2 inches (51 mm) and vertical overlaps of not less than 6 inches (152 mm). Where horizontal furring strips are used, they shall be 1 inch by 3 inches or 1 inch by 4 inches (25 mm by 76 mm or 25 mm by 102 mm) and shall be fastened to the studs with minimum 7d or 8d box nails and shall be spaced a distance on center equal to the actual weather exposure of the shakes or shingles, not to exceed the maximum exposure specified in Table R703.6.1. When installing shakes or shingles over a nonpermeable water-resistive barrier, furring strips shall be placed first vertically over the barrier and in addition, horizontal furring strips shall be fastened to the vertical furring strips prior to attaching the shakes or shingles to the horizontal furring strips. The spacing between adjacent shingles to allow for expansion shall be $\frac{1}{8}$ inch (3.2 mm) to $\frac{1}{4}$ inch (6.4 mm) apart, and between adjacent shakes shall be $\frac{3}{8}$ inch (9.5 mm) to $\frac{1}{2}$ inch (12.7 mm) apart. The offset spacing between joints in adjacent courses shall be not less than $1\frac{1}{2}$ inches (38 mm).

TABLE R703.6.1
MAXIMUM WEATHER EXPOSURE FOR WOOD SHAKES AND SHINGLES ON EXTERIOR WALLS^{a, b, c}
(Dimensions are in inches)

LENGTH	EXPOSURE FOR SINGLE COURSE	EXPOSURE FOR DOUBLE COURSE
Shingles ^a		
16	7	12 ^b
18	8	14 ^c
24	10 ^{1/2}	16 ^d
Shakes ^a		
18	8	14
24	10 ^{1/2}	18

For SI: 1 inch = 25.4 mm.

- Dimensions given are for No. 1 grade.
- A maximum 9-inch exposure is permitted for No. 2 grade.
- A maximum 10-inch exposure is permitted for No. 2 grade.
- A maximum 14-inch exposure is permitted for No. 2 grade.

R703.6.2 Weather exposure. The maximum weather exposure for shakes and shingles shall not exceed that specified in Table 703.6.1.

R703.6.3 Attachment. Wood shakes or shingles shall be installed according to this chapter and the manufacturer's instructions. Where wind pressures determined in accordance with Table R301.2(2) do not exceed 30 psf, each shake or shingle shall be held in place by two stainless steel Type 304, Type 316 or hot-dipped zinc-coated galvanized corrosion-resistant box nails in accordance with Table R703.6.3(1) or R703.6.3(2). The hot-dipped zinc-coated galvanizing shall conform to minimum standard ASTM A153D, 1.0 ounce per square foot. In single-course application, the fasteners shall be concealed by the course above and shall be driven approximately 1 inch (25 mm) above the butt line of the succeeding course and $\frac{3}{4}$ inch (19 mm) from the edge. In double-course applications, the exposed shake or shingle shall be face-nailed with two fasteners, driven approximately 2 inches (51 mm) above the butt line and $\frac{3}{4}$ inch (19 mm) from each edge. Fasteners installed within 15 miles (24 km) of salt water coastal areas shall be stainless steel Type 316. Fasteners for fire-retardant-treated shakes or shingles in accordance with Section R902 or pressure-impregnated-preservative-treated shakes or shingles in accordance with AWP A U1 shall be stainless steel Type 316. The fasteners shall penetrate the sheathing or furring strips by not less than $\frac{1}{2}$ inch (13 mm) and shall not be overdriven. Fasteners for untreated (natural) and treated products shall comply with ASTM F1667.

R703.6.4 Bottom courses. The bottom courses shall be doubled.

R703.7 Exterior plaster. Installation of these materials shall be in compliance with ASTM C926, ASTM C1063 or ASTM C1787 and the provisions of this code.

R703.7.1 Lath. Lath and lath attachments shall be of corrosion-resistant materials. Expanded metal or woven wire lath shall be attached with $1\frac{1}{2}$ -inch-long (38 mm), 11 gage nails having a $\frac{7}{16}$ -inch (11.1 mm) head, or $1\frac{1}{2}$ -inch-long (22.2 mm), 16 gage staples, spaced in accordance with ASTM C1063 or C1787, or as otherwise approved.

R703.7.2 Plaster. Plastering with cement plaster shall be not less than three coats where applied over any type of code-approved lath and shall be not less than two coats where directly applied over masonry, concrete, clay brick, stone or tile. If the plaster surface is completely covered by veneer or other facing material or is completely concealed, plaster application need be only two coats, provided the total thickness is as set forth in Table R702.1(1).

On wood-frame construction with an on-grade floor slab system, exterior plaster shall be applied to cover, but not extend below, lath, paper and screed. Cement plaster

WALL COVERING

TABLE R703.6.3(1)
SINGLE COURSE SIDEWALL FASTENERS

SINGLE COURSE SIDEWALL FASTENERS			
Product type	Nail type and minimum length (inches)	Minimum head diameter (inches)	Minimum shank thickness (inches)
R & R and sanded shingles			
	Type		
16" and 18" shingles	3d box 1 ¹ / ₄	0.19	0.08
24" shingles	4d box 1 ¹ / ₂	0.19	0.08
Grooved shingles			
	Type		
16" and 18" shingles	3d box 1 ¹ / ₄	0.19	0.08
24" shingles	4d box 1 ¹ / ₂	0.19	0.08
Split and sawn shakes			
	Type		
18" straight-split shakes	5d box 1 ³ / ₄	0.19	0.08
18" and 24" handsplit shakes	6d box 2	0.19	0.0915
24" tapersplit shakes	5d box 1 ³ / ₄	0.19	0.08
18" and 24" tapersawn shakes	6d box 2	0.19	0.0915

For SI: 1 inch = 25.4 mm.

TABLE R703.6.3(2)
DOUBLE COURSE SIDEWALL FASTENERS

DOUBLE COURSE SIDEWALL FASTENERS			
Product type	Nail type and minimum length	Minimum head diameter (inches)	Minimum shank thickness (inches)
R & R and sanded shingles			
16," 8" and 24" shingles	5d box 1 ³ / ₄ or same size casing nails	0.19	0.08
Grooved shingles			
16," 18" and 24" shingles	5d box 1 ³ / ₄	0.19	0.08
Split and sawn shakes			
18" straight-split shakes	7d box 2 ¹ / ₄ or 8d 2 ¹ / ₂	0.19	0.099
18" and 24" handsplit shakes	7d box 2 ¹ / ₄ or 8d 2 ¹ / ₂	0.19	0.099
24" tapersplit shakes	7d box 2 ¹ / ₄ or 8d 2 ¹ / ₂	0.19	0.099
18" and 24" tapersawn shakes	7d box 2 ¹ / ₄ or 8d 2 ¹ / ₂	0.19	0.099

For SI: 1 inch = 25.4 mm.

shall be in accordance with ASTM C926. Cement materials shall be in accordance with one of the following:

1. Masonry cement conforming to ASTM C91 Type M, S or N.
2. Portland cement conforming to ASTM C150 Type I, II or III.
3. Blended hydraulic cement conforming to ASTM C595 Type IP, IS(S<70), IL or IT(S<70).
4. Hydraulic cement conforming to ASTM C1157 Type GU, HE, MS, HS or MH.
5. Plaster (stucco) cement conforming to ASTM C1328.

The proportion of aggregate to cementitious materials shall be as set forth in Table R702.1(3).

R703.7.2.1 Weep screeds. A minimum 0.019-inch (0.5 mm) (No. 26 galvanized sheet gage), corrosion-resistant weep screed or plastic weep screed, with a minimum vertical attachment flange of 3¹/₂ inches (89 mm) shall be provided at or below the foundation plate line

on exterior stud walls in accordance with ASTM C926. The weep screed shall be placed not less than 4 inches (102 mm) above the earth or 2 inches (51 mm) above paved areas and shall be of a type that will allow trapped water to drain to the exterior of the building. The weather-resistant barrier shall lap the attachment flange. The exterior lath shall cover and terminate on the attachment flange of the weep screed.

R703.7.3 Water-resistant barriers. Water-resistant barriers shall be installed as required in Section R703.2 and, where applied over wood-based sheathing, shall include a water-resistant vapor-permeable barrier with a performance at least equivalent to two layers of Grade D paper. The individual layers shall be installed independently such that each layer provides a separate continuous plane and any flashing (installed in accordance with Section R703.4) intended to drain to the water-resistant barrier is directed between the layers.

Exception: Where the water-resistant barrier that is applied over wood-based sheathing has a water resistance equal to or greater than that of 60-minute Grade

D paper and is separated from the stucco by an intervening, substantially nonwater-absorbing layer or designed drainage space.

R703.7.4 Application. Each coat shall be kept in a moist condition for at least 48 hours prior to application of the next coat.

Exception: Applications installed in accordance with ASTM C926 including the reference in ASTM C926 Section 8 to Section XI.4.2 of the Appendix.

R703.7.5 Curing. The finish coat for two-coat cement plaster shall not be applied sooner than seven days after application of the first coat. For three-coat cement plaster, the second coat shall not be applied sooner than 48 hours after application of the first coat. The finish coat for three-coat cement plaster shall not be applied sooner than seven days after application of the second coat.

Exception: Applications installed in accordance with ASTM C926 including the reference in ASTM C926 Section 8 to Section XI.4.2 of the Appendix.

R703.8 Anchored stone and masonry veneer, general. Anchored 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 inches (127 mm) in thickness. See Section R602.3 for wall bracing requirements for masonry veneer for wood-framed construction and Section R603.1 for wall bracing requirements for masonry veneer for cold-formed steel construction. The provisions of this section are limited to areas where the ultimate design wind speed, V_{ult} , is less than 165 mph. Where the ultimate design wind speed, V_{ult} , equals or exceeds 165 mph, anchored stone and masonry veneer shall comply with TMS 402/ACI 530/ASCE 5.

Exceptions:

1. For buildings in Seismic Design Categories A, B and C, exterior stone or masonry 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.
2. For detached one- or two-family dwellings in Seismic Design Categories D₀, D₁ and D₂, exterior stone or masonry veneer, as specified in Table R703.8(2), with a backing of wood framing shall be permitted to the height specified in Table R703.8(2) above a noncombustible foundation.

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.

R703.8.2 Exterior veneer support. Except in Seismic Design Categories D₀, D₁ and D₂, exterior masonry veneers having an installed weight of 40 pounds per square foot (195 kg/m²) or less shall be permitted to be supported on wood or cold-formed steel construction. Where 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 $\frac{1}{600}$ 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 6-inch by 4-inch by $\frac{5}{16}$ -inch (152 mm by 102 mm by 8 mm) steel angle, with the long leg placed vertically, shall be anchored to double 2-inch by 4-inch (51 mm by 102 mm) wood studs or double 350S162 cold-formed steel studs at a maximum on-center spacing of 16 inches (406 mm). Anchorage of the steel angle at every double stud spacing shall be not less than two $\frac{7}{16}$ -inch-diameter (11 mm) by 4-inch (102 mm) lag screws for wood construction or two $\frac{7}{16}$ -inch (11.1 mm) bolts with washers for cold-formed steel construction. The steel angle shall have a minimum clearance to underlying construction of $\frac{1}{16}$ inch (1.6 mm). Not less than 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 in accordance with Figure R703.8.2.1. The maximum height of masonry veneer above the steel angle support shall be 12 feet 8 inches (3861 mm). The airspace separating the masonry veneer from the wood backing shall be in accordance with Sections R703.8.4 and R703.8.4.2. 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 without stops shall be 7:12. Roof construction with slopes greater than 7:12 but not more than 12:12 shall have stops of a minimum 3-inch by 3-inch by $\frac{1}{4}$ -inch (76 mm by 76 mm by 6.4 mm) steel plate welded to the angle at 24 inches (610 mm) on center along the angle or as approved by the building official.