

**Amendments to ORSC Section R703.1**

Opportunity for public input:

Those who would like to provide testimony may attend a public hearing on May 19, 2009 at 10:00 a.m. The hearing will be held at the Building Codes Division, Conference Room A. Written comments may also be submitted to the contact below. The last day to submit written comments is 5:00 p.m. May 22, 2009.

Live Broadcast via the Internet

To view the public hearing live, click on "[View Live Meetings.](#)"

Purpose of the rule:

The proposed rule will amend the 2008 Oregon Residential Specialty Code to clarify the performance expectation of new model code language requiring a "means of draining water that enters the [exterior wall] assembly to the exterior." The amendments clarify that in order to provide a means of drainage, either a gap of at least 1/8 inch must be provided between the water resistive barrier and the exterior veneer or, as an alternative, a water resistive barrier manufactured to enhance drainage must be used. When the enhanced water resistive barrier is used as an alternative to the 1/8 inch gap, the barrier must meet a 75 percent drainage requirement of ASTM E2273, ICC-ES AC24, ICC-ES AC235, or other approved testing protocols.

Citation:

OAR 918-480-0010

History:

The 2008 ORSC included new model code language requiring an exterior wall to be constructed in such a manner that it prevents the accumulation of water in the wall *and provides a means of draining water that enters the assembly to the exterior.* After receiving numerous questions from contractors and jurisdictions regarding the intended performance expectation of the new language, the division prepared a draft proposal for a statewide interpretation and forwarded it to the Residential Structures Board for comment in October of 2008. Based on concerns raised during this board meeting, the division agreed to convene a task force on the issue. The division met with the task force three times and based on the recommendation of the task force determined the issue warranted clarification. The division, based on input from the task force, determined that a code amendment adopted through the rulemaking process was the appropriate mechanism for clarifying the questions surrounding the new model code language. The division worked with the task force to develop a draft code amendment and the Residential Structures Board approved the proposed rule for public hearing at the April 1 board meeting.

Contact:

If you have questions or need further information, please contact Structural Program Chief, Richard Rogers at 503-378-4472 or Richard.Rogers@state.or.us.



Secretary of State
NOTICE OF PROPOSED RULEMAKING HEARING*

A Statement of Need and Fiscal Impact accompanies this form.

Department of Consumer and Business Services, Building Codes Division	918	
Agency and Division	Administrative Rules Chapter Number	
Shauna M. Parker	PO Box 14470, Salem, OR 97309	(503) 373-7438
Rules Coordinator	Address	Telephone

RULE CAPTION

Clarifies code language and performance expectations for ORSC Section R703.1

Not more than 15 words that reasonably identifies the subject matter of the agency's intended action.

May 19, 2009	10:00 a.m.	1535 Edgewater Street NW, Salem, OR 97304	Richard Rogers
Hearing Date	Time	Location	Hearings Officer

Auxiliary aids for persons with disabilities are available upon advance request.

RULEMAKING ACTION

Secure approval of new rule numbers (Adopted or Renumbered rules) with the Administrative Rules Unit prior to filing.

ADOPT:

AMEND: 918-480-0010

REPEAL:

RENUMBER:

AMEND & RENUMBER:

Stat. Auth.: ORS 455.020, 455.110, 455.525 & 455.610

Other Auth.:

Stats. Implemented: ORS 455.610

RULE SUMMARY

The proposed rule clarifies the performance expectation of a new code requirement in the 2008 Oregon Residential Specialty Code (ORSC), Section R703.1, which requires a means of draining water that enters the wall assembly to the exterior. The proposed rule lays out the minimum requirements for providing the means of draining, including but not limited to: integration of flashings, an exterior veneer, a water resistive barrier, and either a space between the barrier and the veneer or the application of one of the exceptions.

The Agency requests public comment on whether other options should be considered for achieving the rule's substantive goals while reducing the negative economic impact of the rule on business.

Friday, May 22, 2009 by 5:00 p.m.

Last Day for Public Comment (Last day to submit written comments to the Rules Coordinator)

Signature	Mark Long	Date
	Printed name	

*Hearing Notices published in the Oregon Bulletin must be submitted by 5:00 pm on the 15th day of the preceding month unless this deadline falls on a weekend or legal holiday, upon which the deadline is 5:00 pm the preceding workday. ARC 920-2005

STATEMENT OF NEED AND FISCAL IMPACT

A Notice of Proposed Rulemaking Hearing or a Notice of Proposed Rulemaking accompanies this form.

Department of Consumer and Business Services, Building Codes Division

918

Agency and Division

Administrative Rules Chapter Number

Clarifies code language and performance expectations for ORSC Section R703.1

Rule Caption (Not more than 15 words that reasonably identifies the subject matter of the agency's intended action.)

In the Matter of: Amending OAR 918-480-0010

Statutory Authority: ORS 455.020, 455.110, 455.525 & 455.610

Other Authority:

Stats. Implemented: ORS 455.610

Need for the Rule(s): ORS 455.610 requires the division to adopt, and amend as necessary, a low-rise residential dwelling code that contains all the requirements, including structural design provisions, related to the construction of residential dwellings three stories or less above grade. Furthermore, ORS 455.020 and 455.110 require the division to adopt a state building code to govern the construction, reconstruction, alteration, and repair of buildings and other structures. In April 2008, the most recent version of the low-rise residential dwelling code, the 2008 Oregon Residential Specialty Code (ORSC), was adopted.

The 2008 ORSC included new code language that requires an exterior wall to be constructed in such a manner that it prevents the accumulation of water in the wall and provides a means of draining water that enters the exterior assembly. The requirement has caused some confusion among contractors and local jurisdictions regarding the intended performance expectations of the new language. The proposed rule is necessary to provide clarification regarding the expectations of the code language in ORSC Section R703.1 related to the means of draining water.

Documents Relied Upon, and where they are available: 2008 Oregon Residential Specialty Code; Residential Structures Board meeting minutes from October 1, 2008 and April 1, 2009; ORSC Section R703.1 Task Force meeting minutes from October 29, 2008, November 19, 2008, and March 16, 2009; and draft rules are available from the division's rules coordinator located at 1535 Edgewater Street NW, Salem, OR 97304 and are available on the division's Web site at: www.bcd.oregon.gov.

Fiscal and Economic Impact:

Based on available information, the division has determined this proposed rule is unlikely to have a fiscal or economic impact on state agencies, local government, members of the public, or small businesses.

Statement of Cost of Compliance:

1. Impact on state agencies, units of local government and the public (ORS 183.335(2)(b)(E)):

The proposed rules will have no significant impact on state agencies, units of local government, or the public.

2. Cost of compliance effect on small business (ORS 183.336):

a. Estimate the number of small businesses and types of business and industries with small businesses subject to the rule: The Construction Contractors Board currently has over 46,000 licensees, many of whom perform residential construction work. The division is unable to estimate how many of those contractors operate "small businesses" with 50 or fewer employees.

b. Projected reporting, recordkeeping and other administrative activities required for compliance, including costs of professional services:

The proposed rule does not impose any new reporting, record keeping, or administrative requirements on small businesses.

c. Equipment, supplies, labor and increased administration required for compliance:
Although material and labor costs vary widely across the industry, the housing cost impact statement required by ORS 183.534 estimates that the material cost could be \$90.00 for a 1200 square foot home with a garage when following the minimum compliance path. This cost would be paid by the builder, including those builders who are considered to be "small businesses."

How were small businesses involved in the development of this rule? Small businesses are represented on the Residential Structures Board that reviewed and approved the proposed rule at its April 1, 2009 meeting.

Administrative Rule Advisory Committee consulted?: Yes
If not, why?:

Signature	Mark Long	Date
	Printed name	

Administrative Rules Unit, Archives Division, Secretary of State, 800 Summer Street NE, Salem, Oregon 97310. ARC 925-2007

HOUSING COST IMPACT STATEMENT

FOR ESTIMATING THE EFFECT OF A PROPOSED RULE OR ORDINANCE ON THE COST OF DEVELOPING
A *TYPICAL 1,200 SQ FT DETACHED SINGLE FAMILY DWELLING ON A 6,000 SQ FT PARCEL OF LAND.
(ORS 183.534)

FOR ADMINISTRATIVE RULES

AGENCY NAME: Department of Consumer and Business Services/Building Codes Division
ADDRESS: 1535 Edgewater St., PO Box 14470
CITY/STATE: Salem, Oregon
PHONE: 503-378-4133

PERMANENT: **HEARING DATE:** 5/19/09

TEMPORARY: **EFFECTIVE DATE:**

BELOW PLEASE PROVIDE A DESCRIPTION OF THE ESTIMATED SAVINGS OR ADDITIONAL COSTS THAT WILL RESULT FROM THIS PROPOSED CHANGE.

PROVIDE A BRIEF EXPLANATION OF HOW THE COST OR SAVINGS ESTIMATE WAS DETERMINED.
IDENTIFY HOW CHANGE IMPACTS COSTS IN CATEGORIES SPECIFIED

Description of proposed change: (Please attach any draft or permanent rule or ordinance) Clarifies code language and performance expectations for ORSC Section R703.1

Description of the need for, and objectives of the rule: ORS 455.610 requires the division to adopt, and amend as necessary, a low-rise residential dwelling code that contains all the requirements, including structural design provisions, related to the construction of residential dwellings three stories or less above grade. Furthermore, ORS 455.020 and 455.110 require the division to adopt a state building code to govern the construction, reconstruction, alteration, and repair of buildings and other structures. In April 2008, the most recent version of the low-rise residential dwelling code, the 2008 Oregon Residential Specialty Code (ORSC), was adopted.

The 2008 ORSC included new code language that requires an exterior wall to be constructed in such a manner that it prevents the accumulation of water in the wall and provides a means of draining water that enters the assembly of the exterior. The requirement has caused some confusion among contractors and local jurisdictions regarding the intended performance expectations of the new language. The proposed rule is necessary to provide clarification regarding the expectations of the code language in ORSC Section R703.1 related to the means of draining water.

List of rules adopted or amended: Amend OAR 918-480-0010

Materials and labor costs increase or savings: Material costs vary widely. Flat house wraps are approximately 13 cents per square foot. Drainable house wraps are approximately 17 cents per square foot, an increase of 27%. Following the minimum compliance path using a drainable housewrap, the material cost for a typical 1,200 square foot detached single-family dwelling plus a garage are estimated to increase nearly \$90.00. The labor costs vary widely and cannot be quantified at this time.

Estimated administrative construction or other costs increase or savings: This proposed rule will not have an impact on administrative construction costs.

Land costs increase or savings: None

Other costs increase or savings: No other cost increases or savings are anticipated for detached single-family dwellings.

*Typical-Single story 3 bedrooms, 1 ½ bathrooms, attached garage (calculated separately) on land with good soil conditions with no unusual geological hazards.

PREPARERS NAME: Richard Rogers
EMAIL ADDRESS: Richard.Rogers@state.or.us

ORSC Section R703.1 Amendment
DRAFT: 4-7-09

918-480-0010

Amendments to the Oregon Residential Specialty Code

(1) The Oregon Residential Specialty Code is adopted and amended pursuant to OAR chapter 918, division 8. Amendments adopted for inclusion into the Oregon Residential Specialty Code are placed in this rule, showing the section reference, a descriptive caption, and a short description of the amendment.

(2) Effective April 1, 2008:

(a) The 2006 Edition of the Uniform Plumbing Code, as published by the International Association of Plumbing and Mechanical Officials and amended by the division, is adopted to provide the plumbing provisions of the Oregon Residential Specialty Code; and

(b) The 2008 Edition of the NFPA 70, National Electrical Code as amended by the division is adopted to provide the electrical provisions of the Oregon Residential Specialty Code. See OAR chapter 918, division 305 for Oregon amendments to NFPA 70, National Electrical Code.

(3) Effective April 1, 2007 Appendix N, Low-Rise Multiple-Family Dwelling Construction is moved from the 2005 Oregon Residential Specialty Code to the 2007 Oregon Structural Specialty Code.

(4) During the phase-in period established in OAR 918-480-0005(3), plans designed to the 2005 Oregon Residential Specialty Code must use the plumbing and electrical provisions included in that 2005 code. Plans that are designed to the 2008 Oregon Residential Specialty Code must use the plumbing and electrical provisions adopted in this rule.

(5) Effective October 1, 2008, the 2008 Oregon Residential Specialty Code is amended as follows:

(a) Section R 109.1.4.1 is deleted and replaced with the following: The requirement in R318.2 that all moisture-sensitive wood framing members used in construction shall have a moisture content of not more than 19 percent of the weight of dry wood framing members is not subject to inspection by the authority having jurisdiction.

(b) Section R318.2 is amended to read: Moisture content. Prior to issuance of the insulation/vapor barrier approval required by R109.1.5.2 of this code:

(A) All moisture-sensitive wood framing members used in construction shall have a moisture content of not more than 19 percent of the weight of dry wood framing members.

(B) The general contractor or the owner who was issued the structural permit shall notify the building official, on a division-approved form, that the contractor or the owner who was issued the structural permit is aware of and has taken steps to meet the requirement in paragraph (A).

(6) Effective February 1, 2009, the 2008 Oregon Residential Specialty Code is amended as follows:

(a) Section R602.10.9 is amended to read: R602.10.9 Interior braced wall support. In buildings located in Seismic Design Category D1 and one-story buildings located in Seismic Design Category D2, interior braced wall lines shall be supported on continuous foundations at intervals not exceeding 70 feet (21,336 mm). Braced wall panels located in interior braced wall lines at less than 70-foot (21,336 mm) intervals shall be supported by double floor joists or blocking between floor joists. Where floor joists are perpendicular to the braced wall line, blocking shall be provided for the length of braced panel and shall extend to the next available joist below for braced panels whose ends are not aligned with joists below. The length to width ratio of the horizontal diaphragm supporting interior braced wall lines shall not exceed 4 to 1. Use of alternate braced panels in interior braced wall lines is not permitted.

(b)(A) Section R613.2 is added to the 2008 Oregon Residential Specialty Code: R613.2 Window sills. In dwelling units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located. Operable sections of windows shall not permit openings that allow passage of a 4 inch diameter sphere where such openings are located within 24 inches of the finished floor.

(B) Exceptions.

(i) Windows whose openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the opening is in its largest opened position.

(ii) Openings that are provided with window fall prevention devices that comply with ASTM F 2090-08.

(c) Section R.613.2.1 is added to the 2008 Oregon Residential Specialty Code: R613.2.1 Operation for Emergency Escape. The window opening fall prevention device shall not reduce

the minimum net clear opening area of the window unit below what is required by Section R310.1.1 of the code.

(d) Chapter 43 of the 2008 Oregon Residential Specialty Code is amended to read: ASTM F 2090–08 (revised/updated 2008).

(7) Effective October 1, 2009, the 2008 Oregon Residential Specialty Code is amended as follows:

(a) Section R703.1 General. Exterior walls shall provide the building with a weather-resistant exterior wall envelope and a means of draining water that enters the assembly to the exterior. Protection against condensation in the exterior wall assembly shall be provided in accordance with Chapter 11 of this code. R703.1.1 Exterior Wall Envelope. To promote building durability, the exterior wall envelope shall be installed in a manner that water that enters the assembly can drain to the exterior. The envelope shall consist of an exterior veneer, a water-resistive barrier (wrb) as required in R703.2, a minimum 1/8" (3mm) space between the wrb and the exterior veneer, and integrated flashings as required in R703.8. The required space shall be formed by the use of any non-corrodible furring strip, drainage mat or drainage board. The envelope shall provide proper integration of flashings with the water-resistive barrier, the space provided and the exterior veneer. These components, in conjunction, shall provide a means of draining water that enters the assembly to the exterior.

(b) Exceptions:

(A) A space is not required where the exterior veneer is installed over a water-resistive barrier complying with section R703.2 which is manufactured in a manner to enhance drainage and meets the 75% efficiency drainage requirement of ASTM E2273, ICC-ES AC24, ICC-ES AC235 or other approved testing protocols.

(B) A space is not required where the exterior veneer is matching an existing exterior finish as in additions, alterations or repairs.

(C) A water-resistant exterior wall envelope shall not be required over concrete or masonry walls designed in accordance with Chapter 6 and flashed according to section R703.7 or R703.8.

(D)(i) Compliance with the requirements for a means of drainage, and the requirements of Section R703.2 and Section R703.8, shall not be required for an exterior wall envelope that has been demonstrated to resist wind-driven rain through testing of the

exterior wall envelope, including joints, penetrations and intersections with dissimilar materials, in accordance with ASTM E 331 under the following conditions:

(I) Exterior wall envelope test assemblies shall include at least one opening, one control joint, one wall/eave interface and one wall sill. All tested openings and penetrations shall be representative of the intended end-use configuration.

(II) Exterior wall envelope test assemblies shall be at least 4 feet (1219 mm) by 8 feet (2438mm) in size.

(III) Exterior wall assemblies shall be tested at a minimum differential pressure of 6.24 pounds per square foot (299 Pa).

(IV) Exterior wall envelope assemblies shall be subjected to a minimum test exposure duration of 2 hours.

(ii) The exterior wall envelope design shall be considered to resist wind-driven rain where the results of testing indicate that water did not penetrate: control joints in the exterior wall envelope; joints at the perimeter of openings penetration; or intersections of terminations with dissimilar materials.

[Publications: Publications referenced are available for review at the division. See division web site for information on where to purchase publications.]

Stat. Auth.: ORS 455.020, 455.110, 455.525 & 455.610

Stats. Implemented: ORS 455.610

Hist.: BCA 18-1993, f. 8-24-93, cert. ef. 8-29-93; BCA 28-1993, f. 10-22-93, cert. ef. 1-1-94; BCA 29-1993, f. 11-24-93, cert. ef. 12-1-93; BCD 6-1995, f. 3-31-95, cert. ef. 4-1-95; BCD 3-1996, f. 2-2-96, cert. ef. 4-1-96; BCD 22-1996(Temp), f. 10-1-96, cert. ef. 10-4-96; BCD 5-1997, f. 3-21-97, cert. ef. 4-1-97; Administrative Reformatting 1-19-98; BCD 3-1998, f. 1-29-98, cert. ef. 4-1-98; BCD 19-1998, f. 9-30-98, cert. ef. 10-1-98; BCD 3-2000, f. 1-14-00 cert. ef. 4-1-00; BCD 19-2000(Temp), f. & cert. ef. 8-15-00 thru 2-10-01; BCD 32-2000, f. 12-27-00, cert. ef. 1-1-01; BCD 3-2001, f. 2-9-01, cert. ef. 3-1-01; BCD 2-2002, f. 3-5-02, cert. ef. 4-1-02; BCD 22-2002(Temp), f. 9-13-02 cert. ef. 10-1-02 thru 3-29-03; BCD 30-2002, f. 12-6-02, cert. ef. 1-1-03; BCD 1-2003(Temp), f. & cert. ef. 1-10-03 thru 3-31-03; BCD 33-2002, f. 12-20-02 cert. ef. 4-1-03; BCD 15-2004, f. 9-10-04, cert. ef. 10-1-04; BCD 5-2005, f. & cert. ef. 3-28-05; BCD 9-2006, f. 6-30-06, cert. ef. 7-1-06; BCD 1-2007, f. 2-15-07, cert. ef. 4-1-07; BCD 5-2008, f. 2-22-08, cert. ef. 4-1-08; BCD 13-2008(Temp), f. & cert. ef. 7-3-08 thru 12-30-08; BCD 21-2008, f. 9-30-08, cert. ef. 10-1-08; BCD 24-2008(Temp), f. & cert. ef. 10-6-08 thru 4-1-09; BCD 1-2009, f. & cert. ef. 1-30-09