2008 Oregon Residential Specialty Code
Code Cycle Amendments To:

Appendix N

Effective Date: April 1, 2008

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The following code sections have been amended as part of the ORSC code adoption process:

1. Amend Section AN102.2 definitions of "Substantial Alteration" and "Substantial Damage".

2. Add new Section AN103.2.2.

3. Amend and renumber existing Section AN103.2.2.

4. Delete section AN103.2.3.

5. Amend Section AN103.2.5.

6. Amend Section AN103.3.

7. Delete Sections AN103.3.1 and AN103.3.2.

8. Amend Section AN103.3.4.

9. Delete Table AN103.2.1.

10. Amend Table AN104.1.

11. Amend Section AN104.4.

12. Delete Sections AN104.5 through AN104.5.7.

13. Amend Section AN104.10.

14. Amend Section AN109.2.

15. Delete Sections AN109.4 through AN109.4.2.

16. Add Item 8 under Section AN109.2.1.

17. Amend Section AN109.4.3.

18. Amend Section AN110.4.2.1.

Items 1 through 18 have been prepared as insert pages for the 2007 OSSC. Pages are formatted so that when inserted, the amendments will face the page containing the existing code language.

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AN103.2.2 Automatic sprinkler systems. An automatic sprinkler system shall be provided in all low-rise multiple-family dwellings in accordance with Section AN109.

AN103.2.2~~3~~3 ~~Sprinklered buildings~~ Fire sprinkler systems. Low-rise residential multiple-family dwellings shall be limited to a maximum of three stories above grade, 36,000 square feet (3344 m^2) in cumulative area inclusive of attached carports and garages and 24 dwelling units**.** ~~when the building is provided with a fire sprinkler system installed in accordance with Section AN109.~~

~~**AN103.2.3 Nonsprinklered buildings.** Low-rise residential multiple-family dwellings shall be limited to a maximum of two stories, 24,000 square feet (2230 m^2) in cumulative area inclusive of attached carports and garages and 16 dwelling units when the building is not provided with a fire sprinkler system installed in accordance with Section AN109. Basements shall be considered a story for the purposes of determining the allowable number of stories of nonsprinklered buildings.~~

SUBSTANTIAL ALTERATION. Any Alteration where the total costs of all alterations (including, but not limited to electrical, mechanical, plumbing and structural changes) for a building or facility within any 12-month period amounts to ~~40~~ **25** percent or more of the assessed value of the structure before the alteration occurred. For the purposes of this appendix, standard building maintenance, residing or reproofing are not considered as alterations.

SUBSTANTIAL DAMAGE. Any damage of any origin to a structure whereby the cost of restoring the structure to its original condition would be equal to or exceed ~~40~~ **25** percent of the assessed value of the structure before the alteration occurred

AN103.2.5 Modifications to number of dwelling units and area. No area modifications shall be allowed under this appendix. ~~Sprinkled s~~**S**tructures with more dwelling units or an area greater than allowed by Section AN103.2.2 shall be designed and constructed in accordance with the provisions of this code. ~~Nonsprinklered structures with more dwelling units, number of stories or an area greater than allowed by Section AN103.2.3 shall be designed and constructed in accordance with the provisions of this code~~

AN103.3 Building construction and fire-resistance-rated separation requirements. Building construction and fire-resistance rated separation requirements for low-rise residential dwellings shall be ~~regulated by this section.~~ **separated by fire partitions and horizontal assemblies constructed in accordance with Section AN104.**

~~**AN103.3.1 Sprinklered buildings.** Dwelling units shall be separated by fire partitions and horizontal assemblies constructed in accordance with Section AN104.~~

~~**AN103.3.2 Nonsprinklered buildings.** Nonsprinklered buildings shall be provided with a minimum of one fire wall of not less than 2 hour fire resistive construction. The fire wall shall be permitted to separate groupings of dwelling units but there shall not be more than eight individual dwelling units located on either side of the fire wall with the maximum 12,000 square feet (1115 m^2) of floor area inclusive of attached carport and garage area per side of the fire wall. The fire wall shall be not less than 2 hour fire resistive construction. Fire walls shall be constructed in accordance with Section AN 104.~~

~~Dwelling units shall be separated by fire partitions and horizontal assemblies constructed in accordance with Section AN104.~~

~~Exterior walls shall be protected on the interior side with a minimum of $^5/_8$ inch Type "X" gypsum board installed as required for one hour fire resistive construction.~~

AN103.3.4 Incidental uses. A low-rise residential multifamily dwelling may contain **non-separated** communal laundry rooms, storage rooms and similar incidental use rooms**.** ~~when those uses are separated from the dwelling units as required by Table AN103.3.4~~

~~**TABLE AN103.2.1**~~
~~**INCIDENTAL USE AREAS**~~

(Delete entire Table)

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TABLE AN104.1
FIRE-RESISTIVE RATINGS[a]

ASSEMBLY TYPE		~~NONSPRINKLED BUILDINGS~~	SPRINKLED BUILDINGS
Firewalls[b]		~~2 hour~~	NR[c]
Fire Barriers[b]	Vertical	~~1 hour~~	½-hour
	Horizontal		½-hour
Fire Partitions		~~1 hour~~	½-hour
Shafts		~~1 hour~~	1-hour
Exterior Walls		~~1 hour~~	NR[c]
Exterior Walls< 5 feet from a property line		~~2 hour~~	1-hour[a]

a. When tested in accordance with ASTM E 119
b. For additional requirements, see Section AN104.4 ~~and AN104.5~~
c. Not Required
d. Exterior walls shall be protected on the interior side with a minimum of 5/8 - Type "X" gypsum board installed as required for 1-hour fire-resistive construction.

AN104.4 Fire barriers for occupancy separation. Incidental uses, garages and carports shall be separated from dwelling units with fire barriers in accordance with AN103.3.3 and **Section AN103.3.4** ~~Table AN103.2.1~~. The fire-resistive ratings of the assembly shall be as required by Table AN104.1.

AN104.5 Fire walls. Fire walls used to divide nonsprinklered buildings into two separate areas shall comply with this section. The extent and location of such fire walls shall provide a complete separation. Where a fire wall also separates groups that are required to be separated by a fire barrier wall, the most restrictive requirements of each separation shall apply. Such fire walls shall be constructed without openings.

AN104.5.1 Fire resistive rating. Fire walls shall have a fire resistive rating as required by Table An104.1.

AN104.5.2 Horizontal projecting elements. Fire walls shall extend to the outer edge of horizontal projecting elements such as balconies, roof overhangs, canopies and architectural projections that are within 4 feet (1220 mm) of the fire wall.

Exceptions:

1. Horizontal projecting elements without concealed spaces provided the exterior wall behind and below the projecting element has not less than 1 hour fire resistance rated construction for a distance not less than the depth of the projecting element on both sides of the fire wall.

2. Horizontal projection elements with concealed spaces, the fire wall need only extend through the concealed space to the outer edges of the projecting elements. The exterior wall behind and below the projecting element shall be of not less than 1 hour fire resistance rated construction for a distance not less than the depth of the projecting elements on both sides of the fire wall. Openings within such exterior walls shall be protected by fire assemblies having a fire protection rating of not less than ¾ hour.

AN104.5.3 Vertical continuity. Fire walls shall extend from the foundation to a termination point at least 30 inches (762 mm) above both adjacent roofs.

Exceptions:

1. Stepped buildings in accordance Section AN104.5.4.

2. Fire walls shall be permitted to terminate at the underside of the roof sheathing, deck or slab provided:

2.1. The lower roof assembly within 4 feet (1220 mm) of the wall has not less than a 1 hour fire resistance rating and the entire length and span of supporting elements for the rated roof assembly has a fire resistance rating of not less than 1 hour.

2.2. Openings in the roof shall not be located within 4 feet (1220 mm) of the fire wall.

2.3. The entire building shall be provided with not less than a Class B roof covering.

3.Walls shall be permitted to terminate at the underside of noncombustible roof sheathing, deck, or slabs where the building is provided with not less than a Class B roof covering. Openings in the roof shall not be located within 4 feet (1220 mm) of the fire wall.

4. Walls shall be permitted to terminate at the underside of combustible roof sheathing or decks provided:

4.1. There are no openings in the roof within 4 feet (1220 mm) of the fire wall;

4.2. The roof is covered with a minimum Class B roof covering; and

4.3. The roof sheathing or deck is constructed of fire retardant treated wood for a distance of 4 feet (1220 mm) on both sides of the wall or the roof is protected with 5/8 inch (15.9 mm) Type X gypsum board applied directly beneath the underside of the roof sheathing or deck, supported by a minimum 2 inch (51 mm) ledgers attached to the sides of the roof framing members for a minimum distance of 4 feet (1220 mm) on both sides of the fire wall.

AN104.5.4 Stepped buildings. Where a fire wall serves as an exterior wall for a building and separates buildings having different roof levels, such wall shall terminate at a point not less than 30 inches (762 mm) above the lower roof level, provided the exterior wall for a height of 15 feet (4572 mm) above the lower roof is not less than 1 hour fire resistance rated construction from both sides with openings protected by assemblies having a ¾ hour fire protection rating.

Exception: Where the fire wall terminates at the underside of the roof sheathing, deck or slab of the lower roof, provided:

~~1. The lowest roof assembly within 10 feet (3048 mm) of the wall has not less than a 1-hour fire-resistance rating and the entire length and span of supporting elements for the rated roof assembly has a fire-resistance rating of not less than 1-hour.~~

~~2. Openings in the lower roof shall not be located within 10 feet (3048 mm) of the fire-wall.~~

~~AN104.5.5 Combustible framing in fire walls.~~ ~~Where combustible members frame into hallow walls or walls of hallow units, hallow spaces shall be solidly filled for the full thickness of the wall and for a distance not less than 4 inches (102 mm) above, below and between the structural members, with noncombustible materials approved for fire-blocking.~~

~~AN104.5.6 Penetrations.~~ ~~Penetrations through firewalls shall comply with *Oregon Structural Specialty Code*. Section R317.3.~~

~~AN104.5.7 Ducts and air-transfer openings.~~ ~~Ducts and air-transfer openings shall not penetrate fire-walls.~~

AN104.10 Glazing material. Fire-protection-rated glazing, when required by Section ~~AN105.5.3, AN104.5.5 or~~ AN110.11.5 shall comply with the following:

AN109.2 Fire sprinkler systems. An automatic sprinkler system shall be installed throughout all buildings designed and constructed to the provisions of **Appendix N** ~~Section AN103.2.2.~~

~~**Exception:** Automatic sprinkler systems are not required in buildings designed and constructed to the provisions of Section AN103.2.3.~~

AN109.2.1 Installation requirements. Automatic sprinkler systems shall be installed in accordance with the standards listed in Chapter 43 and the following:

1. **Quick-response and residential sprinklers.** Where automatic sprinkler systems are required, quick-response or residential automatic sprinklers shall be installed in the dwelling units.
2. **Water supplies.** Potable water supplies shall be protected against backflow in accordance with the requirements of the *Oregon Plumbing Specialty Code* and the standards referenced in *Oregon Residential Specialty Code* Chapter 43.
3. **Common Domestic/Fire Mains.** A single common water supply main shall be permitted to service both the domestic use and fire sprinklers. Domestic demand shall be included as part of the overall system demand for systems with common domestic/fire mains where no provisions are made to prevent the domestic water flow upon sprinkler system activation.
4. **Hose threads.** Fire hose threads used to provide connection with automatic sprinkler systems shall be approved and compatible with fire department hose threads.
5. **Fire department connections.** The location of the fire department connection shall be approved by the authority having jurisdiction.
6. **Sprinkler system monitoring and alarms.** All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems serving 20 or more heads, shall be electrically supervised.

An approved audible sprinkler flow alarm shall be provided on the exterior of the building in an approved location. An approved audible sprinkler flow alarm to alert the occupants shall be provided in the interior of each dwelling unit in a normally occupied location. Actuation of the alarm shall be in accordance with NFPA 72.

7. **Balconies, decks and patios**. Sprinkler protection shall be provided for exterior balconies, decks and ground-floor patios serving dwelling units in buildings regulated by this appendix chapter. Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch (25mm) to 6 inches (152mm) below the structural members, and a maximum distance of 14 inches (356mm) below the deck of the exterior balconies that are constructed of open wood joist construction. **Exception:** The sprinkler protection may be omitted if the balcony, deck or patio is constructed of non-combustible materials and there are no vents or other openings into enclosed soffits or attics located directly over the balcony, deck or patio.

8. **Protection of single means of egress. Sprinkler protection shall be provided for combustible exterior porches, exit balconies, and exit stairs that provide exclusive means of egress from dwelling units above grade.**

AN109.3 Access roads and fire hydrants. See the *Oregon Fire Code* for distance requirements for access roads and fire hydrants.

~~**AN109. 4 Alternate fire sprinkler system requirements**. The requirements of this section are adopted by the State of Oregon for optional use in municipalities.~~

~~**AN109.4.1 Local adoption.** The provisions of AN109.4.2 or AN109.4.3 apply only when specifically adopted by the local authority having jurisdiction.~~

~~**AN109.4.2Group R, 2 Occupancies.** An automatic sprinkler system shall be installed throughout every apartment house.~~

~~**Exception:** Automatic sprinkler systems are not required in apartment buildings that are one story in height and do not contain a basement or mezzanine. Such buildings shall not contain more than 16 dwelling units.~~

~~**AN109.4.2.1 Sprinkler heads.** Residential or quick response automatic sprinkler heads shall be used within the dwelling units.~~

AN109.4.~~3~~ Alteration or damage of existing non-sprinkled low-rise residential dwellings. Where substantial alterations are made or substantial damage occurs to an existing non-sprinkled building designed and constructed under the provisions of this appendix, an approved automatic sprinkler system complying with NFPA 13~~D~~ **R** shall be installed only in the altered or damaged dwelling units. When more than 50 percent of the dwelling units within a building are substantially altered or damaged, the entire building shall be provided with a NFPA 13~~D~~ **R** sprinkler system .

For the purposes of Section AN109.4, when an NFPA 13R sprinkler system is installed, a fire department connection shall not be required.

AN110.4.2.1 Separation of exits. Where two or more exits are required from any level or portion of the building, at least two of the exits shall be placed a distance apart equal to not less than one ~~half~~ **third** of the length of the maximum overall diagonal dimension of the area served measured in a straight line between the center of such exits. Additional exits or exit-access doorways shall be arranged a reasonable distance apart so that if one becomes blocked, the others will be available. Where more than one exit is required from the exterior exit balcony, the exit access shall be arranged such that there are no dead ends more than 20 feet in length.

~~**Exception:** Where a building is sprinklered in accordance AN 109 the separation distance of the exit or exit access doorways may be reduced to not less than one-third of the length of the maximum overall diagonal measurement of the area served.~~