

WASHINGTON STATE BUILDING CODE

CHAPTER 51-50 WAC

INTERNATIONAL BUILDING CODE 2012 Edition

**Includes adoption of and amendments to
the 2012 International Existing Building Code
and
ICC/ANSI A117.1-2009**



Washington State Building Code Council

Effective July 1, 2013

Copies of the State Building Codes and
complete copies of the 2012 International Residential Code
as published by the International Code Council
may be obtained from:

Washington Association of Building Officials
Post Office Box 7310
Olympia, Washington 98507-7310
(360) 628-8669 www.wabobookstore.org
or toll free in Washington State at (888) 664-9515

First Edition Titled
International Building Code
Chapter 51-50 WAC
based on
WSR 13-04-067
Effective July 1, 2013

Second Printing, May 2013

Preface

Authority: The International Building Code (Chapter 51-50 WAC) is adopted by the Washington State Building Code Council pursuant to Chapters 19.27 and 70.92 RCW. These codes were first adopted by reference by the Washington State Legislature in 1974. In 1985, the Legislature delegated the responsibility of adoption and amendment of these codes to the State Building Code Council.

Code Precedence: The State Building Code Act, Chapter 19.27 RCW, establishes the following order of precedence among the documents adopted as parts of the State Building Code:

- International Building Code, Standards and amendments -WAC 51-50;
- International Residential Code, Standards and amendments – WAC 51-51;
- International Mechanical Code, Standards and amendments - WAC 51-52;
- International Fire Code, Standards and amendments - WAC 51-54A;
- Uniform Plumbing Code, Standards and amendments - WAC 51-56

Where there is a conflict between codes, an earlier named code takes precedence over a later named code. In the case of conflict between the duct insulation requirements of the International Mechanical Code and the duct insulation requirements of the Energy Code, the Energy Code, or where applicable, a local jurisdiction's energy code, shall govern.

Where, in any specific case, different sections of this Code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

Organization and Numbering: These rules are written to allow compatible use with the International Building Code. All sections which are amended, deleted, or added are referenced.

Enforcement: The State Building Code Act requires that each local jurisdiction enforce the State Building Code within its jurisdiction. Any jurisdiction can contract with another jurisdiction or an inspection agency to provide the mandated enforcement activities.

Amendments to the State Building Code:

The State Building Code Council has adopted review procedures and approval criteria for local amendments. These procedures and criteria are found in Chapter 51-04 WAC. The Council has exempted from its review any amendments to the administrative provisions of the various codes.

Forms for proposing statewide amendments to the State Building Code are available from the State Building Code Council staff.

- A. **Amendments of Statewide Application:** On a yearly basis the State Building Code Council will consider proposals to amend the State Building Code. Unless directed by the State Legislature, federal mandates or court order, the Council will not enter formal rulemaking until 2015 as part of its consideration of adoption of the 2015 series of codes.

Proposals to amend the State Building Code shall be made on forms provided by the Building Code Council.

Code Change Proposal Submittal Deadline: March 1st of each year.

- B. **Local Amendments:** Any jurisdiction may amend the State Building Code provided the amendments do not reduce the minimum performance standards of the codes. There are areas where local amendments are limited or prohibited:

Prohibited Amendments: Residential provisions of the State Energy Code (WAC 51-11R and WAC 51-11C), Ventilation provisions in Section 408 of the Mechanical Code (WAC 51-52) and Section M1507 of the IRC (WAC 51-51); any provision of the International Building Code or International Residential Code affecting accessibility; and standards specifically adopted in Chapters 19.27 and 19.27A RCW cannot be amended by any local jurisdiction.

Residential Amendments: Amendments by local jurisdictions which affect the construction of single family and multi-family residential buildings must be reviewed and approved by the State Building Code Council before such amendments can be enforced. The State Building Code Act provides the following definition:

“Multi-family residential building” means common wall residential buildings that consist of four or fewer units, that do not exceed two stories in height, that are less than 5,000 square feet in area, and that have a one-hour fire-resistive occupancy separation between units.

Application forms for Council review of local amendments are available from the State Building Code Council Staff.

Washington State Building Code Council
Post Office Box 41449
Olympia, Washington 98504-1449
www.sbcc.wa.gov
(360) 407-9280
Fax (360) 586-5366
e-mail: sbcc@ga.wa.gov

Printing Format: This version of the rules is published as a series of insert or replacement pages. Each page provides instructions for installing them in the model code book. Amendments to the model code which are new or revised from the previous edition of this code are indicated by a line in the margin next to the revised portions.

Effective Date: These rules were adopted by the State Building Code Council on November 9, 2012. The rules are effective throughout the state on July 1, 2013. (This version of the code is based on WAC 51-50 as published in WSR 13-04-067.

Building Permit Fees: The activities of the State Building Code Council are supported by permit fees collected by each city and county. Section 19.27.085 of the State Building Code Act requires that a fee of \$4.50 be imposed on each building permit issued by each city and county. In addition, a fee of \$2.00 per unit shall be imposed for each dwelling unit after the first unit, on each building containing more than one residential unit. For the purpose of this fee, WAC 365-110-035 defines building permits as any permit to construct, enlarge, alter, repair, move, improve, remove, convert or demolish any building or structure regulated by the Building Code. Exempt from the fee are plumbing, electrical, mechanical permits, permits issued to install a mobile/manufactured home, commercial coach or factory built structure, or permits issued pursuant to the International Fire Code.

Each city and county shall remit moneys collected to the state treasury quarterly. No remittance is required until a minimum of \$50.00 has accumulated.

These permit fees are the amounts current in January 2013. Such fees may be changed by the State Legislature.

Opinions: Only at the request of a local enforcement official, the State Building Code Council may issue interpretations/opinions of those provisions of the State Building Code created by the Council, or provisions of the model codes amended by the Council. Final interpretation authority for any specific permit resides with the local enforcement official.

Table of Contents

Section	Page
WAC 51-50-001 Authority	A
WAC 51-50-002 Purpose	A
WAC 51-50-003 International Building Code	A
WAC 51-50-005 International Building Code Regulations for Barrier-free Accessibility	A
WAC 51-50-007 Exceptions	A
WAC 51-50-008 Implementation	A
WAC 51-50-009 Recyclable Materials and Solid Waste Storage	A
Chapter 1 Administration	
Section 108 – Temporary Structures and uses	7
Chapter 2 Definitions	
Section 202 – Definitions	11
Chapter 3 Use and Occupancy Classification	
Section 305 – Educational Group E	42
Section 308 – Institutional Group I	48
Section 310 – Residential Group R	49
Chapter 4 Special Detailed Requirements Based on Use and Occupancy	
Section 403 – High-Rise Buildings	59
Section 407 – Group I-2	66
Section 420 – Groups I-1, R-1, R-2, R-3	91
Chapter 5 General Building Heights and Areas	
Section 506 – Building Area Modifications	99
Section 509 – Incidental Uses	104
Chapter 9 Special Detailed Requirements Based on Use and Occupancy	
Section 903 – Automatic Sprinkler Systems	205
Section 907 – Fire Alarms and Detection Systems	217
Section 908 – Emergency Alarm Systems	226
Section 909 – Smoke Control Systems	234
Section 911 – Fire Command Center	235
Chapter 10 Means of Egress	
Section 1007 – Accessible Means of Egress	243
Section 1008 – Doors, Gates and Turnstiles	249
Section 1009 – Stairways	252
Section 1010 – Ramps	256
Section 1018 – Corridors	265
Chapter 11 Accessibility	
Section 1101 – General	281
Section 1106 – Parking and Passenger Loading Facilities	284
Section 1107 – Dwelling Units and Sleeping Units	285

Chapter 12 Interior Environment	
Section 1203 – Ventilation	295
Section 1204 – Temperature Control	296
Section 1208 – Interior Space Dimensions	297
Section 1210 – Surrounding Materials	299
Chapter 14 Exterior Walls	
Section 1403 – Performance Requirements	303
Chapter 17 Structural Tests and Special Inspections	
Section 1705 – Required Verification and Inspection	383
Section 1710 – Preconstruction Load Tests	391
Chapter 19 Concrete	
Section 1901 – General	421
Section 1903 – Specifications for Tests and Materials	421
Section 1904 – Durability Requirements	421
Section 1905 – Modifications to ACI 318	423
Section 1908 – Anchorage to Concrete—Allowable Stress Design	426
Section 1909 – Anchorage to Concrete—Strength Design	426
Chapter 21 Masonry	
Section 2107 – Allowable Stress Design	438
Section 2111 – Masonry Fireplaces	441
Section 2114 – Emission Standards	448
Chapter 24 Glass and Glazing	
Section 2405 – Wind Loads	521
Chapter 29 Minimum Plumbing Fixtures and Sanitation Facilities	
Section 2901 – General	547
Section 2902 – Minimum Plumbing Facilities	547
Chapter 30 Elevators and Conveying Systems	
Section 3002 – Hoistway Enclosures	551
Section 3004 – Hoistway Venting	552
Section 3006 – Machine Rooms	553
Chapter 31 Special Construction	
Section 3103 – Temporary Structures	558
Section 3109 – Swimming Pool Enclosures	560
Chapter 34 Existing Structures	
Section 3401 – General	569
Section 3404 – Alterations	570
Section 3410 – Moved Structures	573
Section 3411 – Accessibility for Existing Buildings	574
Chapter 35 Referenced Standards	
ASTM	593
NFPA	605

**WAC 51-50-480000 Washington State Amendments to the
2012 International Existing Building Code**

Chapter 1 Administration	
Section 101 – General	1
Section 102 – Applicability	1
Chapter 4 Prescriptive Compliance Method	
Section 407 – Change of Occupancy	18
Chapter 5 Classification of Work	
Section 505 – Alterations—Level 3	23
Chapter 7 Alterations—Level 1	
Section 707 – Energy Conservation	31
Chapter 8 Alterations—Level 2	
Section 804 – Fire Protection	35
Section 811 – Energy Conservation	42
Chapter 9 Alterations—Level 3	
Section 907 – Structural	44
Section 908 – Energy Conservation	45
Chapter 10 Change of Occupancy	
Section 1012 – Change of Occupancy Classification	49
Chapter 12 Historic Buildings	
Section 1201 – General	55
Section 1203 – Fire Safety	56
Section 1204 – Alterations	56
Section 1205 – Change of Occupancy	57
Chapter 13 Relocated or Moved Buildings	
Section 1301 – General	59

BLANK

**CHAPTER 51-50 WAC
STATE BUILDING CODE ADOPTION AND AMENDMENT
OF THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE**

WAC 51-50-001 AUTHORITY

These rules are adopted under the authority of Chapter 19.27 RCW.

WAC 51-50-002 PURPOSE

The purpose of these rules is to implement the provisions of Chapter 19.27 RCW, which provides that the State Building Code Council shall maintain the State Building Code in a status which is consistent with the purpose as set forth in RCW 19.27.020. In maintaining the codes the Council shall regularly review updated versions of the codes adopted under the act, and other pertinent information, and shall amend the codes as deemed appropriate by the Council.

WAC 51-50-003 INTERNATIONAL BUILDING CODE

The 2012 edition of the International Building Code, including Appendix E, published by the International Code Council is hereby adopted by reference with the exceptions noted in this chapter of the Washington Administrative Code.

WAC 51-50-005 INTERNATIONAL BUILDING CODE REQUIREMENTS FOR BARRIER-FREE ACCESSIBILITY

Chapter 11 and other International Building Code requirements for barrier-free access, including ICC A117.1-2009 and Appendix E, are adopted pursuant to Chapters 70.92 and 19.27 RCW.

Pursuant to RCW 19.27.040, Chapter 11 and requirements affecting barrier-free access shall not be amended by local governments.

WAC 51-50-007 EXCEPTIONS

The exceptions and amendments to the International Building Code contained in the provisions of Chapter 19.27 RCW shall apply in case of conflict with any of the provisions of these rules.

The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing except as provided by rule adopted under chapter 70.114A RCW or chapter 37, Laws of 1998 (SB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is providing such accommodations for employees, for temporary, seasonal occupancy, and includes "labor camps" under RCW 70.54.110.

Codes referenced which are not adopted through RCW 19.27.031 or RCW 19.27A shall not apply unless specifically adopted by the authority having jurisdiction. The 2012 International Existing Buildings Code is included in the adoption of this code in Section 3401.5 and amended in WAC 51-50-480000.

WAC 51-50-008 IMPLEMENTATION

The International Building Code adopted under Chapter 51-50 WAC shall become effective in all counties and cities of this state on July 1, 2013.

WAC 51-50-009 RECYCLABLE MATERIALS AND SOLID WASTE STORAGE

For the purposes of this section, the following definition shall apply:

RECYCLED MATERIALS means those solid wastes that are separated for recycling or reuse, such as papers, metals and glass.

All local jurisdictions shall require that space be provided for the storage of recycled materials and solid waste for all new buildings

Exceptions: Group R-3 and Group U occupancies.

The storage area shall be designed to meet the needs of the occupancy, efficiency of pickup, and shall be available to occupants and haulers.

B L A N K

B L A N K

108.1 General. The building official is authorized to issue a permit for temporary structures and temporary uses. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The building official is authorized to grant extensions for demonstrated cause.

Exception: The building official may authorize unheated tents and yurts under 500 square feet accommodating an R-1 occupancy for recreational use as a temporary structure and allow them to be used indefinitely.

B L A N K

ADULT FAMILY HOME. A dwelling, licensed by Washington state, in which a person or persons provide personal care, special care, room and board to more than one but not more than six adults who are not related by blood or marriage to the person or persons providing the services.

AIR-IMPERMEABLE INSULATION. An insulation having an air permeance equal to or less than 0.02 L/s-m² at 75 Pa pressure differential tested in accordance with ASTM E2178 or ASTM E283.

(Insert Facing Page 11)

CHILD CARE. The care of children during any period of a 24-hour day.

CHILD CARE, FAMILY HOME. A child care facility, licensed by Washington state, located in the dwelling of the person or persons under whose direct care and supervision the child is placed, for the care of twelve or fewer children, including children who reside at the home.

(Insert Facing Page 14)

B L A N K

B L A N K

HOSPICE CARE CENTER. A building or portion thereof used on a 24-hour basis for the provision of hospice services to terminally ill inpatients.

(Insert facing page 25)

B L A N K

NIGHTCLUB. An A-2 occupancy use under the 2006 International Building Code in which the aggregate area of concentrated use of unfixed chairs and standing space that is specifically designated and primarily used for dancing or viewing performers exceeds three hundred fifty square feet, excluding adjacent lobby areas. “Nightclub” does not include theaters with fixed seating, banquet halls, or lodge halls.

NONSTRUCTURAL CONCRETE. Any element made of plain or reinforced concrete that is not part of a structural system required to transfer either gravity or lateral loads to the ground.

B L A N K

PORTABLE SCHOOL CLASSROOM. A structure, transportable in one or more sections, which requires a chassis to be transported, and is designed to be used as an educational space with or without a permanent foundation. The structure shall be trailerable and capable of being demounted and relocated to other locations as needs arise.

(Insert facing page 30)

B L A N K

SMALL BUSINESS. Any business entity (including a sole proprietorship, corporation, partnership or other legal entity) which is owned and operated independently from all other businesses, which has the purpose of making a profit, and which has fifty or fewer employees.

305.2.4 Family home child care. Family home child care licensed by Washington state for the care of twelve or fewer children shall be classified as Group R-3 or shall comply with the *International Residential Code*.

B L A N K

This group shall include, but not be limited to, the following:

- Foster care facilities.
- Detoxification facilities.
- Hospice care centers.
- Hospitals.
- Nursing homes.
- Psychiatric hospitals.

308.4.2 Licensed care facilities. Assisted living facilities as licensed by Washington state under chapter 388-78A WAC and residential treatment facilities as licensed by Washington state under chapter 246-337 WAC shall be classified as Group R-2.

308.2 Definitions. The following terms are defined in Chapter 2:

- 24-HOUR CARE.**
- CUSTODIAL CARE.**
- DETOXIFICATION FACILITIES.**
- FOSTER CARE FACILITIES.**
- HOSPICE CARE CENTER.**
- HOSPITALS AND PSYCHIATRIC HOSPITALS.**
- INCAPABLE OF SELF-PRESERVATION.**
- MEDICAL CARE.**
- NURSING HOMES.**

308.3.2 Licensed care facilities. Assisted living facilities as licensed by Washington state under chapter 388-78A WAC and residential treatment facilities as licensed by Washington state under chapter 246-337 WAC shall be classified as Group R-2.

308.3.3 Adult family homes. Adult family homes licensed by Washington state shall be classified as Group R-3 or shall comply with the *International Residential Code*.

308.4 Group I-2. This occupancy shall include buildings and structures used for *medical care* on a 24-hour basis for more than five persons who are *incapable of self-preservation*.

(Insert Facing Page 48)

310.2 Definitions. The following terms are defined in Chapter 2:

ADULT FAMILY HOME.
BOARDING HOUSE.
CHILD CARE.
CHILD CARE, FAMILY HOME.
CONGREGATE LIVING FACILITIES.
DORMITORY.
GROUP HOME.
PERSONAL CARE SERVICE.
TRANSIENT.

310.4 Residential Group R-2. Residential occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily permanent in nature, including:

Apartment houses
Assisted living facilities as licensed by Washington state under chapter 388-78A WAC
Boarding houses (nontransient) with more than 16 occupants.
Congregate living facilities (nontransient) with more than 16 occupants
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units
Monasteries
Motels (nontransient)
Residential treatment facilities as licensed by Washington state under chapter 246-337 WAC
Vacation timeshare properties

308.6.5 Family home child care. Family home child care licensed by Washington state for the care of twelve or fewer children shall be classified as Group R-3 or shall comply with the *International Residential Code*.

310.5.2 Adult family homes, family home child care.

Adult family homes and family home child care facilities that are within a single-family home are permitted to comply with the *International Residential Code*.

310.5.3 Foster family care homes. Foster family care homes licensed by Washington state are permitted to comply with the *International Residential Code*, as an accessory use to a dwelling, for six or fewer children including those of the resident family.

310.6 Residential Group R-4. R-4 classification is not adopted. Any reference in this code to R-4 does not apply.

(Insert Facing Page 50)

B L A N K

B L A N K

403.5.4 Smokeproof exit enclosures. Every required *exit stairway* serving floors more than 75 feet (22,860 mm) above the lowest level of fire department vehicle access shall be a *smokeproof enclosure* in accordance with Sections 909.20 and 1022.10.

Exception: Unless required by other sections of this code, portions of such stairways which extend to serve floors below the level of exit discharge need not comply with Sections 909.20 and 1022.10 provided the portion of the stairway below is separated from the level of exit discharge with a 1 hour fire barrier.

407.4.3.2 Separation. *Care suites* shall be separated from other portions of the building by a smoke partition complying with Section 710. Partitions within suites are not required to be smoke resistant or fire resistance rated unless required by another section of this code.

(Insert Facing Page 66)

B L A N K

B L A N K

indicate the rooms used for clients and the sleeping room classification of each room.

420.7.2 Sleeping room classification. Each sleeping room in an adult family home shall be classified as one of the following:

1. Type S - Where the means of egress contains stairs, elevators or platform lifts.
2. Type NS1 - Where one means of egress is at grade level or a ramp constructed in accordance with Section 420.7.8 is provided.
3. Type NS2 - Where two means of egress are at grade level or ramps constructed in accordance with Section 420.7.8 are provided.

420.7.3 Types of locking devices and door activation. All bedrooms and bathroom doors shall be openable from the outside when locked.

Every closet door shall be readily openable from the inside.

Operable parts of door handles, pulls, latches, locks and other devices installed in adult family homes shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

Pocket doors shall have graspable hardware available when in the closed or open position.

The force required to activate operable parts shall be 5.0 pounds (22.2 N) maximum. Required exit door(s) shall have no additional locking devices. Required exit door hardware shall unlock inside and outside mechanisms when exiting the building allowing reentry into the adult family home without the use of a key, tool or special knowledge.

420.7.4 Smoke and carbon monoxide alarm requirements. All adult family homes shall be equipped with smoke and carbon monoxide alarms installed as required in Section 908.7. Alarms shall be installed in such a manner so that the detection device warning is audible from all areas of the dwelling upon activation of a single alarm.

420.7.5 Escape windows and doors. Every sleeping room shall be provided with emergency escape and rescue windows as required by Section 1029. No alternatives to the sill height such as steps, raised platforms or other devices placed by the openings will be approved as meeting this requirement.

420.7.6 Fire apparatus access roads and water supply for fire protection. Adult family homes shall be served by fire apparatus access roads and water supplies meeting the requirements of the local jurisdiction.

420.7.7 Grab bar general requirements. Where facilities are designated for use by adult family home clients, grab bars for water closets, bathtubs and shower stalls shall be installed according to this section.

420.6 Subdivision of building spaces--Smoke barriers.

Smoke barriers complying with Section 709 shall be installed on all floors of a Group R-2 boarding home or residential treatment facility licensed by Washington state. The smoke barrier shall subdivide the floor into at least two compartments complying with Section 407.5

420.7 Adult family homes. This section shall apply to all newly constructed adult family homes and all existing single-family homes being converted to adult family homes. This section shall not apply to those adult family homes licensed by the state of Washington department of social and health services prior to July 1, 2001.

420.7.1 Submittal standards. In addition to the requirements of Section 107, the submittal shall identify the project as a Group R-3 adult family home occupancy. A floor plan shall be submitted identifying the means of egress and the components in the means of egress such as stairs, ramps, platform lifts and elevators. The plans shall

(continued on page 91A)

(Insert Facing Page 91)

420.7.7.1 Grab bar cross section. Grab bars with a circular cross section shall have an outside diameter of 1 1/4 inches minimum and 2 inches maximum. Grab bars with noncircular cross section shall have a cross section dimension of 2 inches maximum and a perimeter dimension of 4 inches minimum and 4 5/8 inches maximum.

420.7.7.2 Grab Bar Installation. Grab bars shall have a spacing of 1 1/2 inches between the wall and the bar. Projecting objects, control valves and bathtub or shower stall enclosure features above, below and at the ends of the grab bar shall have a clear space of 1 1/2 inches to the grab bar.

Exception: Swing-up grab bars shall not be required to meet the 1 1/2 inch spacing requirement.

Grab bars shall have a structural strength of 250 pounds applied at any point on the grab bar, fastener, mounting device or supporting structural member. Grab bars shall not be supported directly by any residential grade fiberglass bathing or showering unit. Acrylic bars found in bathing units shall be removed.

Fixed position grab bars, when mounted, shall not rotate, spin or move and have a graspable surface finish.

420.7.7.3 Grab Bars at Water Closets. Water closets shall have grab bars mounted on both sides. Grab bars can be a combination of fixed position and swing-up bars. Grab bars shall meet the requirements of Section 420.7.7. Grab bars shall mount between 33 inches and 36 inches above floor grade. Centerline distance between grab bars, regardless of type used, shall be between 25 inches minimum and 30 inches maximum.

420.7.7.3.1 Fixed position grab bars. Fixed position grab bars shall be a minimum of 36 inches in length and start 12 inches from the rear wall.

420.7.7.3.2 Swing-up grab bars. Swing-up grab bars shall be a minimum of 28 inches in length from the rear wall.

420.7.7.4 Grab bars at bathtubs. Horizontal and vertical grab bars shall meet the requirements of Section 420.7.7.

420.7.7.4.1 Vertical grab bars. Vertical grab bars shall be a minimum of 18 inches long and installed at the control end wall and head end wall. Grab bars shall mount within 4 inches of the exterior of the bath tub edge or within 4 inches within the bath tub. The bottom end of the bar shall start between 36 inches and 42 inches above floor grade.

Exception: The required vertical grab bar can be substituted with a floor to ceiling grab bar meeting the requirements of Section 420.7.7 at the control end and head end entry points.

420.7.7.4.2 Horizontal grab bars. Horizontal grab bars shall be provided at the control end, head end, and the back wall within the bathtub area. Grab bars shall be mounted between 33 inches and 36 inches above floor grade. Control end and head end grab bars shall be 24 inches minimum in length. Back wall grab bars shall be 36 inches minimum in length.

420.7.7.5 Grab bars at shower stalls. Where shower stalls are provided to meet the requirements for bathing facilities, grab bars shall meet the requirements of Section 420.7.7.

Exception: Shower stalls with permanent built-in seats are not required to have vertical or horizontal grab bars at the seat end wall. A vertical floor to ceiling grab bar shall be installed within 4 inches of the exterior of the shower aligned with the nose of the built-in seat.

420.7.7.5.1 Vertical grab bars. Vertical grab bars shall be 18 inches minimum in length and installed at the control end wall and head end wall. Vertical bars shall be mounted within 4 inches of the exterior of the shower stall or within 4 inches of the inside of the shower stall. The bottom end of vertical bars mount between 36 inches and 42 inches above floor grade.

420.7.7.5.2 Horizontal grab bars. Horizontal grab bars shall be installed on all sides of the shower stall mounted between 33 inches and 36 inches above the floor grade. Horizontal grab bars shall be a maximum of 6 inches from adjacent walls. Horizontal grab bars shall not interfere with shower control valves.

420.7.8 Ramps. All interior and exterior ramps, when provided, shall be constructed in accordance with Section 1010 with a maximum slope of 1 vertical to 12 horizontal.

Exception: Where it is technically infeasible to comply with Section 1010, ramps in existing buildings being converted to use as adult family homes shall be permitted to comply with the following:

1. They shall have a maximum slope of 1 unit vertical in 12 units horizontal (8 percent slope).
2. Landings of at least 3 feet by 3 feet (914 mm by 914 mm) shall be provided at the top and bottom of the ramp, where doors open onto the ramp, and where the ramp changes direction.

420.7.8.1 Handrails for ramps. Handrails shall be provided for ramps in accordance with Section 1010.9.

Exception: Where it is technically infeasible to comply with Section 1010.9, ramps in existing buildings being converted to use as adult family homes shall be permitted to comply with the following:

(Insert As Page 91A)

1. Handrails shall be installed on both sides of ramps with a rise of more than 6 inches and a slope between 1 vertical to 12 horizontal and 1 vertical and 20 horizontal.
2. Handrail height, measured above the finished surface of the ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).
3. Handrails shall comply with Section 1012.3.
4. Handrails where required on ramps shall be continuous for the full length of the ramp. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1 1/2 inches (38 mm) between the wall and the handrails.

420.7.9 Stair treads and risers. Stair treads and risers shall be constructed in accordance with Section 1009.

Exception: Where it is technically infeasible to comply with Section 1009, stair treads and risers in existing buildings being converted to use as adult family homes shall be permitted to comply with the following:

1. The maximum riser height shall be 7 3/4 inches (196 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open risers are permitted provided that the opening between treads does not permit the passage of a 4-inch-diameter (102 mm) sphere. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less.
2. The minimum tread depth shall be 10 inches (254 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).
3. Winder treads shall have a minimum tread depth of 10 inches (254 mm) measured between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline. Winder treads shall have a minimum tread depth of 6 inches (152 mm) at any point within the clear width of the stair. Within any flight of stairs, the largest winder tread depth at the

walkline shall not exceed the smallest winder tread by more than 3/8 inch (9.5 mm). Consistently shaped winders at the walkline shall be allowed within the same flight of stairs as rectangular treads and do not have to be within 3/8 inch (9.5 mm) of the rectangular tread depth.

4. The radius of curvature at the nosing shall be no greater than 9/16 inch (14 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm) between two stories, including the nosing at the level of floors and landings. Beveling of nosings shall not exceed 1/2 inch (12.7 mm). A nosing is not required where the tread depth is a minimum of 11 inches (279 mm).

420.7.9.1 Handrails for treads and risers. Handrails shall be installed on both sides of treads and risers numbering from one riser to multiple risers. Handrails shall comply with Section 1009.15.

420.7.10 Shower stalls. Where provided to meet the requirements for bathing facilities, the minimum size of shower stalls for an adult family home shall be 30 inches deep by 48 inches long.

504.3 Stair enclosure pressurization increase. For Group R-1 and R-2 occupancies in buildings of Type VA construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the maximum number of stories permitted in Section 504.2 May be increased by one provided the interior exit stairways and ramps are pressurized in accordance with Section 909.20 and Section 909.11.

504.4 Roof Structures. (Numbering change only; remains as printed in 2012 IBC)

(Insert Facing Page 96)

B L A N K

B L A N K

506.5 Mixed occupancy area determination. The total allowable building area for buildings containing mixed occupancies shall be determined in accordance with the applicable provisions of this section. Basements need not be included in the total allowable building area, provided each such basement does not exceed the area permitted for a building with no more than one story above grade plane.

506.4 Single occupancy buildings with more than one story. The total allowable building area of a single occupancy building with more than one story above grade plane shall be determined in accordance with this section. The actual aggregate building area at all stories in the building shall not exceed the total allowable building area.

Exception: Basements need not be included in the total allowable building area, provided each basement does not exceed the area permitted for a building with no more than one story above grade plane.

**TABLE 509
INCIDENTAL USES**

Add the following to Table 509:

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Dry type transformers over 112.5 kVA and required to be in a fire resistant room per NEC (NFPA 70) Section 450.21 (B) ¹	1 hour or provide automatic sprinkler system

¹ Dry type transformers rated over 35,000 volts and oil-insulated transformers shall be installed in a transformer vault complying with NFPA 70.

(Remainder of table unchanged)

B L A N K

B L A N K

903.2.3 Group E. An automatic sprinkler system shall be provided for Group E Occupancies.

Exceptions:

1. Portable school classrooms with an occupant load of 50 or less calculated in accordance with Table 1004.1.2, provided aggregate area of any cluster or portion of a cluster of portable school classrooms does not exceed 5,000 square feet (1465 m²); and clusters of portable school classrooms shall be separated as required by the building code.
2. Group E occupancies with an occupant load of 50 or less, calculated in accordance with Table 1004.1.2.

903.2.1.6 Nightclub. An automatic sprinkler system shall be provided throughout Group A-2 nightclubs as defined in this code.

(Insert facing page 205)

903.2.8 Group R. An automatic fire sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exception: Group R-1 if all the following conditions apply:

1. The Group R fire area is no more than 500 square feet and is used for recreational use only.
2. The Group R fire area is only one story.
3. The Group R fire area does not include a basement.
4. The Group R fire area is no closer than 30 feet from another structure.
5. Cooking is not allowed within the Group R fire area.
6. The Group R fire area has an occupant load of no more than 8.
7. A hand held (portable) fire extinguisher is in every Group R fire area.

903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy, where one of the following conditions exists:

1. A Group M fire area exceeds 12,000 square feet (1115m²).
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).
4. Where a Group M occupancy that is used for the display and sale of upholstered furniture or mattresses exceeds 5000 square feet (464 m²).

(Insert Facing Page 206)

B L A N K

B L A N K

907.2.6 Group I. A manual fire alarm system that activates the occupant notification system shall be installed in Group I occupancies. An automatic smoke detection system that notifies the occupant notification system shall be provided in accordance with Sections 907.2.6.1, 907.2.6.2, 907.2.6.3.3 and 907.2.6.4.

Exceptions:

1. Manual fire alarm boxes in resident or patient sleeping areas of Group I-1 and I-2 occupancies shall not be required at exits if located at nurses' control stations or other constantly attended staff locations, provided such stations are visible and continually accessible and that travel distances required in Section 907.4.2 are not exceeded.
2. Occupant notification systems are not required to be activated where private mode signaling installed in accordance with NFPA 72 is approved by the fire code official.

907.2.6.4 Group I-4 child care facilities. An automatic smoke detection system that activates the occupant notification system in accordance with Sections 907.6 through 907.6.2.3.2 shall be provided and installed in accordance with NFPA 72.

(Insert Facing Page 218)

B L A N K

area in the immediate vicinity of the bedrooms in dwelling units or sleeping units and on each level of the dwelling. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720-2012 and the manufacturer's instructions.

Exceptions:

1. For other than R-3 occupancies, the building does not contain a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; or
2. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, and DSHS licensed boarding home and residential treatment facility occupancies which do not themselves contain a fuel-burning appliance, or a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that:
 - a. The sleeping unit or dwelling unit is not adjacent to any room which contains a fuel-burning appliance, a fuel-burning fireplace, or an attached garage; and
 - b. The sleeping unit or dwelling unit is not connected by duct work or ventilation shafts with a supply or return register in the same room to any room containing a fuel-burning appliance, a fuel-burning fireplace, or to an attached garage; and
 - c. The building is provided with a common area carbon monoxide detection system.
3. An open parking garage, as defined in Chapter 2 of the *International Building Code*, or enclosed parking garage ventilated in accordance with Section 404 of the *International Mechanical Code* shall not be considered an attached garage.

908.7.1 Carbon monoxide detection systems. Carbon monoxide detection systems, that include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720-2012 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075.

908.7 Carbon monoxide alarms. Group I or Group R occupancies shall be provided with single station carbon monoxide alarms installed outside of each separate sleeping

(Insert Facing Page 226)

B L A N K

909.21.12 Hoistway venting. Hoistway venting required by Section 3004 need not be provided for pressurized elevator shafts.

909.21.13 Machine rooms. Elevator machine rooms shall be pressurized in accordance with this section unless separated from the hoistway shaft by construction in accordance with Section 707.

(Insert Facing Page 234)

911.1.2 Separation. The fire command center shall be separated from the remainder of the building by not less than a 2-hour fire barrier constructed in accordance with Section 707 or horizontal assembly constructed in accordance with Section 712, or both. |

B L A N K

1007.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by Section 1015.1 or 1021.1 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

Exceptions:

1. Accessible means of egress are not required in alterations to existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1007.3, 1007.4 or 1007.5.
3. In assembly areas with sloped or stepped aisles, one accessible means of egress is permitted where the common path of travel is accessible and meets the requirements in Section 1028.8.
4. In parking garages, accessible means of egress are not required to serve parking areas that do not contain accessible parking spaces.

B L A N K

1007.8.1 System requirements. Two-way communication systems shall provide communication between each required location and the fire command center or a central control point location approved by the fire department. Where the central control point is not constantly attended, a two-way communication system shall have a timed automatic telephone dial-out capability to a monitoring location. The two-way communication system shall include both audible and visible signals. The two-way communication system shall have a battery backup or an approved alternate source of power that is capable of 90 minutes use upon failure of the normal power source.



B L A N K

permitted to be equipped with key-operated locking devices from the egress side provided:

- 2.1. The locking device is readily distinguishable as locked;
- 2.2. A readily visible and durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and
- 2.3. The use of the key-operated locking device is revocable by the building official for due cause.
3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface mounted hardware.
4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt, or security chain, provided such devices are openable from the inside without the use of a key or a tool.
5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.
6. Approved, listed locks without delayed egress shall be permitted in Group R-2 boarding homes licensed by Washington state, provided that:
 - 6.1. The clinical needs of one or more patients require specialized security measures for their safety.
 - 6.2. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
 - 6.3. The doors unlock upon loss of electrical power controlling the lock or lock mechanism.
 - 6.4. The lock shall be capable of being deactivated by a signal from a switch located in an approved location.
 - 6.5. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.

1008.1.9.3 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:

1. Places of detention or restraint.
2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main exterior door or doors are

(Insert Facing Page 249)

7. Emergency lighting shall be provided at the door.

Exception: Items 1, through 4, and 6 shall not apply to doors to areas where persons, which because of clinical needs, require restraint or containment as part of the function of a psychiatric treatment area provided that all clinical staff shall have the keys, codes or other means necessary to operate the locking devices.

1008.1.9.6 Special locking arrangements in Group I-2.

Approved special egress locks shall be permitted in a Group I-2 Occupancy where the clinical needs of persons receiving care require such locking. Special egress locks shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 7.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center, a nursing station or other approved location.
4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an *exit*.
5. The procedures for the operation(s) of the unlocking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.
6. There is a system, such as a keypad and code, in place that allows visitors, staff persons and appropriate residents to exit. Instructions for exiting shall be posted within six feet of the door.

(Insert Facing Page 250)

B L A N K

1009.3 Exit access stairways. Floor openings between stories created by *exit access stairways* shall be enclosed.

Exceptions:

1. In other than Group I-2 and I-3 occupancies, *exit access stairways* that serve, or atmospherically communicate between, only two stories are not required to be enclosed. Such interconnected stories shall not be open to other stories. ||
2. *Exit access stairways* serving and contained within a single residential *dwelling unit* or *sleeping unit* in Group R-1, R-2 or R-3 occupancies are not required to be enclosed.
3. In Group B or M occupancies, *exit access stairways* that are designed exclusively for circulation are not required to be enclosed provided that the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the area of the floor opening between stories does not exceed twice the horizontal projected area of the *exit access stairway*, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. ||
4. In other than Group B and M occupancies, *exit access stairways* that are designed exclusively for circulation are not required to be enclosed provided that the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1, the floor opening does not connect more than four stories, the area of the floor opening between stories does not exceed twice the horizontal projected area of the *exit access stairway*, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. ||

(Insert Facing Page 252)

5. *Exit access stairways* within an *atrium* complying with the provisions of Section 404 are not required to be enclosed.
6. *Exit access stairways* and *ramps* in open parking garages that serve only the parking garage are not required to be enclosed.
7. *Stairways* serving outdoor facilities where all portions of the *means of egress* are essentially open to the outside are not required to be enclosed.
8. *Exit access stairways* serving stages, platforms and *technical production areas* in accordance with Sections 410.6.2 and 410.6.3 are not required to be enclosed.
9. *Stairways* are permitted to be open between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, *places of religious worship*, auditoriums and sports facilities.
10. In Group I-3 occupancies, *exit access stairways* constructed in accordance with Section 408.5 are not required to be enclosed.

1009.18 Stairways in individual dwelling units. Stairs or ladders within an individual dwelling unit used for access to areas of 200 square feet (18.6 m²) or less, and not containing the primary bathroom or kitchen, are exempt from the requirements of Section 1009.

1010.1 Scope. The provisions of this section shall apply to ramps used as a component of a means of egress.

Exceptions:

1. Other than ramps that are part of the accessible routes providing access in accordance with Section 1108.2 through 1108.2.4 and 1108.2.6, ramped aisles within assembly rooms or spaces shall conform with the provisions of Section 1028.11.
2. Curb ramps shall comply with ICC A117.1
3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Section 1010.3 through 1010.9 when they are not an accessible route serving accessible parking spaces or other required accessible elements.
4. In a parking garage where one accessible means of egress serving accessible parking spaces or other accessible elements is provided, a second accessible means of egress serving that area may include a vehicle ramp that does not comply with Sections 1010.4, 1010.5 and 1010.8. A landing complying with Sections 1010.6.1 and 1010.6.4 shall be provided at any change of direction in the accessible means of egress.

(Insert Facing Page 256)

B L A N K

B L A N K

5. Where such air is part of an engineered smoke control system.
6. Air supplied to corridors serving residential occupancies shall not be considered as providing ventilation air to the dwelling units subject to the following:
 - 6.1 The supply air is one hundred percent outside air; and
 - 6.2 The units served by the corridor have conforming ventilation independent of the air supplied to the corridor; and
 - 6.3 For other than high-rise buildings, the supply fan will automatically shut off upon activation of corridor smoke detectors which shall be spaced at no more than thirty feet (9,144 mm) on center along the corridor; or
 - 6.4 For high-rise buildings, corridor smoke detector activation will close required smoke/fire dampers at the supply inlet to the corridor at the floor receiving the alarm.

1018.6 Corridor continuity. Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms. Where the path of egress travel within a fire-resistance-rated corridor to the exit includes travel along unenclosed exit access stairways or ramps, the fire resistance-rating shall be continuous for the length of the stairway or ramp and for the length of the connecting corridor on the adjacent floor leading to the exit.

Exceptions:

1. Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.
2. In Group R-2 boarding rooms and residential treatment facilities licensed by Washington State, seating areas shall be allowed to be open to the corridor provided:
 - 2.1 The seating area is constructed as required for the corridor;
 - 2.2 The floor is separated into at least two compartments complying with Section 407.4;
 - 2.3 Each individual seating area does not exceed 150 square feet, excluding the corridor width;
 - 2.4 The combined total space of seating areas per compartment does not exceed 300 square feet, excluding the corridor width;
 - 2.5 Combustible furnishings located within the seating area shall be in accordance with the International Fire Code Section 805; and
 - 2.6 Emergency means of egress lighting is provided as required by Section 1006 to illuminate the area.

1018.5 Air movement in corridors. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

Exceptions:

1. Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.
2. Where located within a dwelling unit, the use of corridors for conveying return air shall not be prohibited.
3. Where located within tenant spaces of 1,000 square feet (93 m²) or less in area, utilization of corridors for conveying return air is permitted.
4. Incidental air movement from pressurized rooms within health care facilities, provided that a corridor is not the primary source of supply or return to the room.

(Insert Facing Page 265)

B L A N K

1101.2 Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1, except those portions of ICC A117.1 amended by this section.

1101.2.1 Reserved

1101.2.2 (ICC A117.1 Section 403.5) Clear width of accessible route. Clear width of an accessible route shall comply with ICC A117.1 Section 403.5. For exterior routes of travel, the minimum clear width shall be 44 inches (1118 mm).

1101.2.3 (ICC A117.1 Section 404.2.8) Door-Opening Force. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors other than fire doors shall be as follows:

1. Interior hinged door: 5.0 pounds (22.2 N) maximum
2. Interior sliding or folding doors: 5.0 pounds (22.2 N) maximum
3. Exterior hinged, sliding or folding door: 10 pounds (44.4 N) maximum

Exception: Interior or exterior automatic doors complying with Section 404.3 of ICC A117.1.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.

1101.2.4 Reserved.

1101.2.5 Reserved.

1101.2.6 Reserved.

1101.2.7 (ICC A117.1 Section 606.7) Operable parts. Operable parts on drying equipment, towel or cleansing product dispensers, and disposal fixtures shall comply with Table 603.6.

1101.2.8 (ICC A117.1 Section 604.6) Flush controls.

Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with Section 309, except the maximum height above the floor shall be 44 inches (1118 mm). Flush controls shall be located on the open side of the water closet.

Exception: In ambulatory accessible compartments complying with Section 604.10, flush controls shall be permitted to be located on either side of the water closet.

1101.2.9 (ICC A117.1 Section 703.6.3.1) International symbol of accessibility. Where the International Symbol of Accessibility is required, it shall be proportioned complying with ICC A117.1 Figure 703.6.3.1. All interior and exterior signs depicting the International Symbol of Accessibility shall be white on a blue background.

1106.6 Location. Accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible building entrance. In parking facilities that do not serve a particular building, accessible parking spaces shall be located on the shortest route to an accessible pedestrian entrance to the parking facility. Where buildings have multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located near the accessible entrances. Wherever practical, the accessible route shall not cross lanes of vehicular traffic. Where crossing traffic lanes is necessary, the route shall be designated and marked as a crosswalk.

Exceptions:

1. In multilevel parking structures, van accessible parking spaces are permitted on one level.
2. Accessible parking spaces shall be permitted to be located in different parking facilities if substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance or entrances, parking fee and user convenience.

(Insert Facing Page 284)

1107.6 Group R. Accessible units, Type A units and Type B units shall be provided in Group R occupancies in accordance with Sections 1107.6.1 through 1107.6.4. Accessible and Type A units shall be apportioned among efficiency dwelling units, single bedroom units and multiple bedroom units, in proportion to the numbers of such units in the building.

1107.6.2.1.1 Type A units. In Group R-2 occupancies containing more than 10 dwelling units or sleeping units, at least 5 percent, but not less than one, of the units shall be a Type A unit. All units on a site shall be considered to determine the total number of units and the required number of Type A units. Type A units shall be dispersed among the various classes of units, as described in Section 1107.6.

Exceptions:

1. The number of Type A units is permitted to be reduced in accordance with Section 1107.7.
2. Existing structures on a site shall not contribute to the total number of units on a site.

1107.6.2.2 Group R-2 other than apartment houses, monasteries and convents. In Group R-2 occupancies, other than apartment houses, monasteries and convents, Accessible units and Type B units shall be provided in accordance with Sections 1107.6.2.2.1 and 1107.6.2.2.2. Accessible units shall be dispersed among the various classes of units, as described in Section 1107.6.

(Insert Facing Page 286)

B L A N K

B L A N K

4. Unvented attic assemblies (spaces between the ceiling joists of the top story and the roof rafters) shall be permitted if all the following conditions are met:
 - 4.1 The unvented attic space is completely contained within the building thermal envelope.
 - 4.2 No interior vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly.
 - 4.3 Where wood shingles or shakes are used, a minimum 1/4 inch (6 mm) vented air space separates the shingles or shakes and the roofing underlayment above the structural sheathing.
 - 4.4 In Climate Zones 5B and 6B, any air-impermeable insulation shall be a Class II vapor retarder, or shall have a Class II vapor retarder coating or covering in direct contact with the underside of the insulation.
 - 4.5 Either items a, b, or c below shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing.
 - a. Air-impermeable insulation only. Insulation shall be applied in direct contact to the underside of the structural roof sheathing.
 - b. Air-permeable insulation only. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing as specified in Table 1203.2 for condensation control.
 - c. Air-impermeable and air-permeable insulation. The air-impermeable insulation shall be applied in direct contact to the underside of the structural roof sheathing as specified in Table 1203.2.1 for condensation control. The air-permeable insulation shall be installed directly under the air-impermeable insulation.
 - i. Climate Zone #1 - R-10 minimum rigid board or air-impermeable insulation R-value.
 - ii. Climate Zone #2 - R-25 minimum rigid board or air-impermeable insulation R-value.
 - d. Where preformed insulation board is used as the air-impermeable insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer.

1203.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the *International Mechanical Code*.



1203.2 Attic spaces. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilation openings protected against the entrance of rain and snow. Blocking and bridging shall be arranged so as not to interfere with the movement of air. An airspace of not less than 1 inch (25 mm) shall be provided between the insulation and the roof sheathing. The net free ventilating area shall not be less than 1/150th of the area of the space ventilated.

Exceptions:

1. The net free cross-ventilation area shall be permitted to be reduced to 1/300 provided . not less than 50 percent and not more than 80 percent of the required ventilating area provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above eave or cornice vents with the balance of the required *ventilation* provided by eave or cornice vents.
2. The net free cross-ventilation area shall be permitted to be reduced to 1/300 where a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.
3. *Attic* ventilation shall not be required when determined not necessary by the *building official* due to atmospheric or climatic conditions.

**TABLE 1203.2
INSULATION FOR CONDENSATION CONTROL**

CLIMATE ZONE	MINIMUM RIGID BOARD ON AIR-IMPERMEABLE INSULATION R-VALUE ^a
4C	R-15
5B	R-20
6B	R-25

^a Contributes to but does not supersede the requirements for insulation in the Washington State Energy Code (WAC 51-11).

(Insert Facing Page 295)

1203.4 Natural ventilation. For other than Group R occupancies, natural ventilation of an occupied space shall be through windows, doors, louvers or other openings to the outdoors. The operating mechanism for such openings shall be provided with ready access so that the openings are readily controllable by the building occupants. Group R occupancies shall comply with the International Mechanical Code.

(NOTE: See pages 296a and 296b for Sections 1203.6 through 1203.6.3.2.9)

1204.1 Equipment and systems. Interior spaces intended for human occupancy shall be provided with active or passive space-heating systems capable of maintaining a minimum indoor temperature of 68°F (20°C) at a point 3 feet (914 mm) above the floor on the design heating day.

Exceptions:

1. Interior spaces where the primary purpose is not associated with human comfort.
2. Group R-1 occupancies not more than 500 square feet.

1204.2 Heating.

1204.2.1 Definitions. For the purposes of this section only, the following definitions apply.

DESIGNATED AREAS are those areas designated by a county to be an urban growth area in Chapter 36.70A RCW and those areas designated by the US Environmental Protection Agency as being in nonattainment for particulate matter.

SUBSTANTIALLY REMODELED means any alteration or restoration of a building exceeding 60 percent of the appraised value of such building within a 12 month period. For the purpose of this section, the appraised value is the estimated cost to replace the building and structure in kind, based on current replacement costs.

1204.2.2 Primary Heating Source. Primary heating sources in all new and substantially remodeled buildings in designated areas shall not be dependent upon wood stoves.

1204.2.3 Solid Fuel Burning Devices. No new or used solid fuel burning device shall be installed in new or existing buildings unless such device is United States Environmental Protection Agency certified or exempt from certification by the United States Environmental Protection Agency and conforms with RCW 70.94.011, 70.94.450, 70.94.453 and 70.94.457.

Exceptions:

1. Wood cook stoves.
2. Antique wood heaters manufactured prior to 1940.

(Insert Facing Page 296)

1203.6 Radon resistive construction standards. The criteria of this section establishes minimum radon resistive construction requirements for Group R Occupancies.

1203.6.1 Application. The requirements of Section 1203.6 shall be adopted and enforced by all jurisdictions of the state according to the following subsections.

1203.6.1.1 All jurisdictions of the state shall comply with Section 1203.6.2.

1203.6.1.2 Clark, Ferry, Okanogan, Pend Oreille, Skamania, Spokane, and Stevens counties shall also comply with Section 1203.6.3.

1203.6.2 State wide radon requirements.

1203.6.2.1 Crawlspace. All crawlspaces shall comply with the requirements of this section.

1203.6.2.2 Ventilation. All crawlspaces shall be ventilated as specified in Section 1203.3.

If the installed ventilation in a crawlspace is less than one square foot for each 300 square feet of crawlspace area, or if the crawlspace vents are equipped with operable louvers, a radon vent shall be installed to originate from a point between the ground cover and soil. The radon vent shall be installed in accordance with Sections 1203.6.3.2.6 and 1203.6.3.2.7.

1203.6.2.3 Crawlspace plenum systems. In crawlspace plenum systems used for providing supply air for an HVAC system, aggregate, a permanently sealed soil gas retarder membrane and a radon vent pipe shall be installed in accordance with Section 1203.6.3.2. Crawlspace shall not be used for return air plenums.

In addition, an operable radon vent fan shall be installed and activated. The fan shall be located as specified in Section 1203.6.3.2.7. The fan shall be capable of providing at least 100 cfm at 1-inch water column static pressure. The fan shall be controlled by a readily accessible manual switch. The switch shall be labeled "RADON VENT FAN."

1203.6.3 Radon prescriptive requirements.

1203.6.3.1 Scope. This section applies to those counties specified in Section 1203.6.1.2. This section establishes prescriptive construction requirements for reducing the potential for radon entry into all Group R Occupancies, and for preparing the building for future mitigation if desired.

In all crawlspaces, except crawlspace plenums used for providing supply air for an HVAC system, a continuous air barrier shall be installed between the crawlspace area and the occupied area to limit air transport between the areas. If a wood sheet subfloor or other material is utilized as an air barrier, in addition to the requirements of Section 502.1.6.2 of the Washington State Energy Code, all joints between sheets shall be sealed.

1203.6.3.2 Floors in contact with the earth.

1203.6.3.2.1 General. Concrete slabs that are in direct contact with the building envelope shall comply with the requirements of this section.

Exception: Concrete slabs located under garages or other than Group R Occupancies need not comply with this chapter.

1203.6.3.2.2 Aggregate. A layer of aggregate of 4-inch minimum thickness shall be placed beneath concrete slabs. The aggregate shall be continuous to the extent practical.

1203.6.3.2.3 Gradation. Aggregate shall:

1. Comply with ASTM Standard C-33 Standard Specification for Concrete Aggregate and shall be size No. 8 or larger size aggregate as listed in Table 2, Grading Requirements for Course Aggregate; or
2. Meet the 1988 Washington State Department of Transportation Specification 9-03.1 (3) "Coarse Aggregate for Portland Cement Concrete," or any equivalent successor standards. Aggregate size shall be of Grade 8 or larger as listed in Section 9-03.1 (3) C, "Grading"; or
3. Be screened, washed pea gravel free of deleterious substances in a manner consistent with ASTM Standard C-33 with 100 percent passing a 1/2-inch sieve and less than 5 percent passing a No. 16 sieve. Sieve characteristics shall conform to those acceptable under ASTM Standard C-33.

Exception: Aggregate shall not be required if a substitute material or system, with sufficient load bearing characteristics, and having approved capability to provide equal or superior air flow, is installed.

1203.6.3.2.4 Soil-gas retarder membrane. A soil-gas retarder membrane, consisting of at least one layer of virgin polyethylene with a thickness of at least 6 mil, or equivalent flexible sheet material, shall be either placed directly under all concrete slabs so that the slab is in direct contact with the membrane, or on top of the aggregate with 2 inches minimum of fine sand or pea gravel installed between the concrete slab and membrane. The flexible sheet shall extend to the foundation wall or to the outside edge of the monolithic slab. Seams shall overlap at least 12 inches. The membrane shall also be fitted tightly to all pipes, wires, and other penetrations of the membrane and sealed with an approved sealant or tape. All punctures or tears shall be repaired with the same or approved material and similarly lapped and sealed.

1203.6.3.2.5 Sealing of penetrations and joints. All penetrations and joints in concrete slabs or other floor systems and walls below grade shall be sealed

by an approved sealant to create an air barrier to limit the movement of soil-gas into the indoor air. Sealants shall be approved by the manufacturer for the intended purpose. Sealant joints shall conform to manufacturer's specifications. The sealant shall be placed and tooled in accordance with manufacturer's specifications. There shall be no gaps or voids after the sealant has cured.

1203.6.3.2.6 Radon vent. One continuous sealed pipe shall run from a point within the aggregate under each concrete slab to a point outside the building. Joints and connections shall be permanently gas tight. The continuous sealed pipe shall interface with the aggregate in the following manner, or by other approved equal method. The pipe shall be permanently connected to a "T" within the aggregate area so that the two end openings of the "T" lie within the aggregate area. A minimum of 5 feet of perforated drain pipe of 3 inches minimum diameter shall join to and extend from the "T." The perforated pipe shall remain in the aggregate area and shall not be capped at the ends. The "T" and its perforated pipe extensions shall be located at least 5 feet horizontally from the exterior perimeter of the aggregate area.

The continuous sealed pipe shall terminate no less than 12 inches above the eave, and more than 10 horizontal feet from a woodstove or fireplace chimney, or operable window. The continuous sealed pipe shall be labeled "radon vent." The label shall be placed so as to remain visible to an occupant.

The minimum pipe diameter shall be 3 inches unless otherwise approved. Acceptable sealed plastic pipe shall be smooth walled, and may include either PVC schedule 40 or ABS schedule of equivalent wall thickness.

The entire sealed pipe system shall be sloped to drain to the subslab aggregate.

The sealed pipe system may pass through an unconditioned attic before exiting the building; but to the extent practicable, the sealed pipe shall be located inside the thermal envelope of the building in order to enhance passive stack venting.

Exception: A fan for subslab depressurization system includes the following:

1. Soil-gas retarder membrane as specified in Section 1203.6.3.2.4;
2. Sealing of penetrations and joints as specified in Section 1203.6.3.2.5;
3. A 3-inch continuous sealed radon pipe shall run from a point within the aggregate under each concrete slab to a point outside the building;
4. Joints and connections shall be gas tight, and may be of either PVC schedule 40 or ABS schedule of equivalent in wall thickness;

5. A label of "radon vent" shall be placed on the pipe so as to remain visible to an occupant;
6. Fan circuit and wiring as specified in Section 1203.6.3.2.7 and a fan.

If the subslab depressurization system is exhausted through the concrete foundation wall or rim joist, the exhaust terminus shall be a minimum of 6 feet from operable windows or outdoor air intake vents and shall be directed away from operable windows and outdoor air intake vents to prevent radon reentrainment.

1203.6.3.2.7 Fan circuit and wiring and location.

An area for location of an in-line fan shall be provided. The location shall be as close as practicable to the radon vent pipe's point of exit from the building, or shall be outside the building shell; and shall be located so that the fan and all downstream piping is isolated from the indoor air. Provisions shall be made to allow future activation of an inline fan on the radon vent pipe without the need to place new wiring. A 110 volt power supply shall be provided at a junction box near the fan location.

1203.6.3.2.8 Separate aggregate areas. If the 4-inch aggregate area underneath the concrete slab is not continuous, but is separated into distinct isolated aggregate areas by a footing or other barrier, a minimum of one radon vent pipe shall be installed into each separate aggregate area.

Exception: Separate aggregate areas may be considered a single area if a minimum 3-inch diameter connection joining the separate areas is provided for every 30 feet of barrier separating those areas.

1203.6.3.2.9 Concrete block walls. Concrete block walls connected to below grade areas shall be considered unsealed surfaces. All openings in concrete block walls that will not remain accessible upon completion of the building shall be sealed at both vertical and horizontal surfaces, in order to create a continuous air barrier to limit the transport of soil-gas into the indoor air.

(Insert as Page 296b)

1208.2 Minimum ceiling heights. Occupiable spaces and habitable spaces shall have a ceiling height of not less than 7 feet 6 inches (2286 mm). Bathrooms, toilet rooms, kitchen, storage rooms and laundry rooms shall be permitted to have a ceiling height of not less than 7 feet (2134 mm). ←

Exceptions:

1. In one- and two-family dwellings, beams or girders spaced not less than 4 feet (1219 mm) on center shall be permitted to project not more than 6 inches (152 mm) below the required ceiling height.

(Insert Facing Page 297)

2. If any room in a building has a sloped ceiling, the prescribed ceiling height for the room is required in one-half the area thereof. Any portion of the room measuring less than 5 feet (1524 mm) from the finished floor to the ceiling shall not be included in any computation of the minimum area thereof.
3. The height of mezzanines and spaces below mezzanines shall be in accordance with Section 505.1.

1208.3 Room area. Every dwelling unit shall have at least one room that shall have not less than 120 square feet (13.9 m²) of net floor area. Other habitable rooms shall have a net floor area of not less than 70 square feet (6.5 m²).

Exception: Kitchens in one- and two-family dwellings.

Portions of a room with a sloped ceiling measuring less than 5 feet (1524 mm) or a flat ceiling measuring less than 7 feet (2134 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum habitable area for that room.

(Insert Facing Page 298)

1210.4 Toilet rooms. This section is not adopted. (The requirements of this section have been moved to Section 2902.3.1.1)

(Insert Facing Page 299)

B L A N K

water-resistant barrier behind the exterior veneer, as described in Section 1404.2, and a means for draining water that enters the assembly to the exterior. An air space cavity is not required under the exterior cladding for an exterior wall clad with lapped or panel siding made of plywood, engineered wood, hardboard, or fiber cement. Protection against condensation in the exterior wall assembly shall be provided in accordance with Section 1405.3

Exceptions:

(Exceptions are unchanged and remain as printed in the 2012 IBC)

1403.2 Weather protection. Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section 1405.4. The exterior wall envelope shall be designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by providing a

(Insert Facing Page 303)

1403.5 Vertical and lateral flame propagation. Exterior walls on buildings of Type I, II, III, or IV construction that are greater than 40 feet (12,192 mm) in height above grade plane and contain a combustible water-resistive barrier shall be tested in accordance with and comply with the acceptance criteria of NFPA 285.

Exception: Walls that contain less than 500 gm/m² combustible material and where the water-resistive barrier has a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E 84 or UL 723.

B L A N K

**TABLE 1705.3
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION**

Modify portions of Table 1705.3 as follows:

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD ^a	IBC REFERENCE
3. Inspection of anchors cast in concrete.	---	X	ACI 318: D.9.2	
4. Inspection of anchors post-installed in hardened concrete members ^b .				
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X	---	ACI 318: D.9.2.4	
b. Mechanical anchors and adhesive anchors not defined in 4a.	---	X	ACI 318: D.9.2	

a. Where applicable, see also Section 1705.11, Special inspections for seismic resistance.

b. Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with D.9.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

(Insert Facing Page 383)

B L A N K

1710.5 Exterior window and door assemblies. The design pressure rating of exterior windows and doors in buildings shall be determined in accordance with Section 1710.5.1 or 1710.5.2.

Exceptions:

1. Structural wind load design pressures for window units smaller than the size tested in accordance with Section 1710.5.1 or 1710.5.2 shall be permitted to be higher than the design value of the tested unit provided such higher pressures are determined by accepted engineering analysis. All components of the small unit shall be the same as the tested unit. Where such calculated design pressures are used, they shall be validated by an additional test of the window unit having the highest allowable design pressure.
2. Custom exterior windows and doors manufactured by a small business shall be exempt from all testing requirements in Section 1710 of the International Building Code provided they meet the applicable provisions of Chapter 24 of the International Building Code.

(Insert Facing Page 391)

B L A N K

1901.2.1 Anchoring to concrete. Anchoring to concrete shall be in accordance with ACI 318 as amended in Section 1905, and applies to cast-in (headed bolts, headed studs, and hooked J- or L-bolts) anchors and post-installed expansion (torque-controlled and displacement-controlled), undercut, and adhesive anchors.

1903.1 General. Materials used to produce concrete, concrete itself and testing thereof shall comply with the applicable standards listed in ACI 318 where required, special inspections and tests shall be in accordance with Chapter 17.

Exception: The following standards as referenced in Chapter 35 shall be permitted to be used.

1. ASTM C 150
2. ASTM C 595
3. ASTM C 1157

1904.1 Structural concrete. Structural concrete shall conform to the durability requirements of ACI 318.

Exception: For Group R-2 and R-3 occupancies not more than three stories above grade plane, the specified compressive strength, f'_c , for concrete in basement walls, foundation walls, exterior walls and other vertical surfaces exposed to the weather shall be not less than 3000 psi.

1904.2 Nonstructural concrete. The registered design professional shall assign nonstructural concrete a freeze-thaw exposure class, as defined in ACI 318, based on the anticipated exposure of nonstructural concrete. Nonstructural concrete shall have a minimum specified compressive strength, f'_c , of 2500 psi for Class F0; 3000 psi for Class F1; and 3500 psi for Classes F2 and F3. Nonstructural concrete shall be air entrained in accordance with ACI 318.

B L A N K

1905.1.3 ACI 318, Section 21.4. Modify ACI 318, Section 21.4, by adding new Section 21.4.3 and renumbering existing Section 21.4.3 to become 21.4.4.

21.4.3 - Connections that are designed to yield shall be capable of maintaining 80 percent of their design strength at the deformation induced by the design displacement or shall use Type 2 mechanical splices.

21.4.4 - Elements of the connection that are not designed to yield shall develop at least $1.5 S_y$.

WALL PIER. This definition is not adopted.

1905.1.4 ACI 318, Section 21.9. This section is not adopted.

(Insert Facing Page 423)

B L A N K

1905.1.9 ACI 318, Section D.3.3. Modify ACI 318 Sections D.3.3.4.2 and D.3.3.5.2 to read as follows:

D.3.3.4.2 - Where the tensile component of the strength-level earthquake force applied to anchors exceeds 20 percent of the total factored anchor tensile force associated with the same load combination, anchors and their attachments shall be designed in accordance with D.3.3.4.3. The anchor design tensile strength shall be determined in accordance with D.3.3.4.4.

Exceptions:

1. Anchors designed to resist wall out-of-plane forces with design strengths equal to or greater than the force determined in accordance with ASCE 7 Equation 12.11-1 or 12.14-10 need not satisfy Section D.3.3.4.3.
2. Anchors in concrete designed to support nonstructural components in accordance with ASCE 7 Section 13.4.2 need not satisfy Section D.3.3.4.3.

D.3.3.5.2 - Where the shear component of the strength-level earthquake force applied to anchors exceeds 20 percent of the total factored anchor shear force associated with the same load combination, anchors and their attachments shall be designed in accordance with D.3.3.5.3. The anchor design shear strength for resisting earthquake forces shall be determined in accordance with D.6.

Exceptions:

1. D.3.3.5.3 need not apply and the design shear strength in accordance with D.6.2.1(c) need not be computed for anchor bolts attaching wood sill plates of bearing or nonbearing walls of light-frame wood structures to foundations or foundation stem walls provided all of the following are satisfied:
 - 1.1. The allowable in-plane shear strength of the anchor is determined in accordance with AF&PANDS Table 11E for lateral design values parallel to grain.
 - 1.2. The maximum anchor nominal diameter is 5/8 inches (16 mm).
 - 1.3. Anchor bolts are embedded into concrete a minimum of 7 inches (178 mm).
 - 1.4. Anchor bolts are located a minimum of 1 3/4 inches (45 mm) from the edge of the concrete parallel to the length of the wood sill plate.

1.5. Anchor bolts are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the wood sill plate.

1.6. The sill plate is 2-inch or 3-inch nominal thickness.

2. Section D.3.3.5.3 need not apply and the design shear strength in accordance with Section D.6.2.1(c) need not be computed for anchor bolts attaching cold-formed steel track of bearing or nonbearing walls of light-frame construction to foundations or foundation stem walls provided all of the following are satisfied:
 - 2.1. The maximum anchor nominal diameter is 5/8 inches (16 mm).
 - 2.2. Anchors are embedded into concrete a minimum of 7 inches (178 mm).
 - 2.3. Anchors are located a minimum of 1 3/4 inches (45 mm) from the edge of the concrete parallel to the length of the track.
 - 2.4. Anchors are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the track.
 - 2.5. The track is 33 to 68 mil designation thickness.

Allowable in-plane shear strength of exempt anchors, parallel to the edge of concrete shall be permitted to be determined in accordance with AISI S100 Section E3.3.1.

3. Anchors in concrete designed to support nonstructural components in accordance with ASCE 7 Section 13.4.2 need not satisfy Section D.3.3.5.3.
4. In light-frame construction, bearing or nonbearing walls, shear strength of concrete anchors less than or equal to 1 inch (25 mm) in diameter connecting sill plate or track to foundation or foundation stem wall need not satisfy D.3.3.5.3 when the design strength of the anchors is determined in accordance with D.6.2.1(c).

**SECTION 1908
ANCHORAGE TO CONCRETE—ALLOWABLE
STRESS DESIGN**

This section is not adopted

1905.1.10 ACI 318, Section D.4.2.2. Delete ACI 318, Section D.4.2.2, and replace with the following:

D.4.2.2 - For anchors with diameters not exceeding 4 in., the concrete breakout strength requirements shall be considered satisfied by the design procedure of D.5.2 and D.6.2. For anchors in shear with diameters exceeding 4 inches, shear anchor reinforcement shall be provided in accordance with the procedures of D.6.2.9.

**SECTION 1909
ANCHORAGE TO CONCRETE—STRENGTH
DESIGN**

This section is not adopted

(Insert Facing Page 426)

B L A N K

2107.5 TMS 402/ACI 530/ASCE 5. Modify Section 2.3.4 Axial compression and flexure, as follows:

2.3.4.2.1 The compressive force in reinforced masonry due to axial load only shall be permitted to not exceed that given by Equation 2107.5-1 or Equation 2107.5-2.

- a. For members having an h/r ratio not greater than 99:

$$P_a = (0.33 f' mAn .+ 0.65A_{st}F_s) [1-(h/140r)^2]$$

(Equation 2107.5-1)

- b. For members having an h/r ratio not greater than 99:

$$P_a = (0.33 f' mAn .+ 0.65F_{st}A_{st}) (70r/h)^2$$

(Equation 2107.5-2)

2107.1 General. The design of masonry structures using allowable stress design shall comply with Sections 2106, 2107.2 and the requirements of Chapters 1 and 2 of TMS 402/ACI 530/ASCE 5 except as modified by Sections 2107.2 through 2107.5.

2107.2.1 Lap splices. The minimum length of lap splices for reinforcing bars in tension or compression, l_d , shall be

$$l_d = 0.002d_b f_s \quad \text{(Equation 21-1)}$$

For SI: $l_d = 0.29d_b f_s$

but not less than 12 inches (305 mm). In no case shall the length of the lapped splice be less than 40 bar diameters.

where:

d_b = Diameter of reinforcement, inches (mm).

f_s = Computed stress in reinforcement due to design loads, psi (MPa).

In regions of moment where the design tensile stresses in the reinforcement are greater than 80 percent of the allowable steel tension stress, F_s , the lap length of splices shall be increased not less than 50 percent of the minimum required length, but need not be greater than $72d_b$. Other equivalent means of stress transfer to accomplish the same 50 percent increase shall be permitted. Where epoxy coated bars are used, lap length shall be increased by 50 percent.

(Insert Facing Page 438)

B L A N K

B L A N K

2111.7 Fireplaces. Fireplaces shall be provided with each of the following:

1. Tightly fitting flue dampers, operated by a readily accessible manual or approved automatic control.

Exception: Fireplaces with gas logs shall be installed in accordance with the International Mechanical Code Section 901, except that the standards for liquefied petroleum gas installations shall be NFPA 58 (Liquefied Petroleum Gas Code) and NFPA 54 (National Fuel Gas Code).

2. An outside source for combustion air ducted into the firebox. The duct shall be at least 6 square inches, and shall be provided with an operable outside air duct damper.

Exception: Washington certified fireplaces shall be installed with the combustion air systems necessary for their safe and efficient combustion and specified by the manufacturer in accordance with the Washington State Building Standard 31-2 (WAC 51-50-31200) and IBC Section 2114 (WAC 51-50-2114).

3. Site built fireplaces shall have tight fitting glass or metal doors, or a flue draft induction fan or as approved for minimizing back-drafting. Factory built fireplaces shall use doors listed for the installed appliance.

2111.7.1 Lintel and throat. Masonry over a fireplace opening shall be supported by a lintel of noncombustible material. The minimum required bearing length on each end of the fireplace opening shall be 4 inches (102 mm). The fireplace throat or damper shall be located a minimum of 8 inches (203 mm) above the top of the fireplace opening.

(Insert Facing Page 441)

**SECTION 2114
EMISSION STANDARDS**

2114.1 Emission Standards for Factory-built Fireplaces. No new or used factory-built fireplace shall be installed in Washington State unless it is certified and labeled in accordance with procedures and criteria specified in ASTM E2558.

To certify an entire fireplace model line, the internal assembly shall be tested to determine its particulate matter emission performance. Retesting and recertifying is required if the design and construction specifications of the fireplace model line internal assembly change. Testing for certification shall be performed by a Washington State Department of Ecology (DOE) approved and U. S. Environmental Protection Agency (EPA) accredited laboratory.

2114.2 Emission Standards for Certified Masonry and Concrete Fireplaces. Masonry and concrete fireplace model lines certified to Washington State Building Code Standard 31-2 prior to July 1, 2013, may retain certification provided the design and construction specifications of the fireplace model line internal assembly do not change.

(Insert Facing Page 448)

B L A N K

B L A N K

- 4.1. Each pane of the glass is 16 square feet (1.5 m²) or less in area.
- 4.2. The highest point of the glass is 12 feet (3658 mm) or less above any walking surface or other accessible area.
- 4.3. The glass thickness is 3/16 inch (4.8 mm) or less.
5. Screens shall not be required for laminated glass with a 15 mil (0.38 mm) polyvinyl butyral (or equivalent) interlayer within the following limits:
 - 5.1. Each pane of glass is 16 square feet (1.5 m²) or less in area.
 - 5.2. The highest point of the glass is 12 feet (3658 mm) or less above a walking surface or other accessible area.

2405.3 Screening. Where used in monolithic glazing systems, heat strengthened glass and fully tempered glass shall have screens installed below the glazing material. The screens and their fastenings shall: (1) be capable of supporting twice the weight of the glazing; (2) be firmly and substantially fastened to the framing members; and (3) be installed within 4 inches (102 mm) of the glass. The screens shall be constructed of a noncombustible material not thinner than No. 12 B&S gage (0.0808 inch) with mesh not larger than 1 inch by 1 inch (25 mm by 25 mm). In a corrosive atmosphere, structurally equivalent noncorrosive screen materials shall be used. Heat-strengthened glass, fully tempered glass and wired glass, when used in multiple-layer glazing systems as the bottom glass layer over the walking surface, shall be equipped with screening that conforms to the requirements for monolithic glazing systems.

Exception: In monolithic and multiple-layer sloped glazing systems, the following applies:

1. Fully tempered glass installed without protective screens where glazed between intervening floors at a slope of 30 degrees (0.52 rad) or less from the vertical plane shall have the highest point of the glass 10 feet (3048 mm) or less above the walking surface.
2. Screens are not required below any glazing material, including annealed glass, where the walking surface below the glazing material is permanently protected from the risk of falling glass or the area below the glazing material is not a walking surface.
3. Any glazing material, including annealed glass, is permitted to be installed without screens in the sloped glazing systems of commercial or detached noncombustible greenhouses used exclusively for growing plants and not open to the public, provided that the height of the greenhouse at the ridge does not exceed 30 feet (9144 mm) above grade.
4. Screens shall not be required within individual dwelling units in Groups R-2, R-3 and R-4 where fully tempered glass is used as single glazing or as both panes in an insulating glass unit, and the following conditions are met:

(Insert Facing Page 521)

B L A N K

2901.1 Scope. The provisions of this chapter and the state plumbing code shall govern the erection, installation, *alteration*, repairs, relocation, replacement, *addition* to, use or maintenance of plumbing equipment and systems. Toilet and bathing rooms shall be constructed in accordance with Section 1210. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the state plumbing code.

2901.2 Health codes. In food preparation, serving and related storage areas, additional fixture requirements may be dictated by health codes.

2902.1 Minimum number of fixtures. Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 2902.1. Types of occupancies not shown in Table 2902.1 shall be determined individually by the *building official* based on the occupancy which most nearly resembles the proposed occupancy. The number of occupants shall be determined by this code. Occupancy classification shall be determined in accordance with Chapter 3. Plumbing fixtures need not be provided for unoccupied buildings or facilities.

2902.1.1.1 Private offices. Fixtures only accessible to private offices shall not be counted to determine compliance with this section.

2902.1.1.2 Urinals. Where urinals are provided, one water closet less than the number specified may be provided for each urinal installed, except the number of water closets in such cases shall not be reduced to less than one quarter (25%) of the minimum specified. For men's facilities serving 26 or more persons, not less than one urinal shall be provided.

**TABLE 2902.1
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a
(See Sections 2902.2 and 2902.3)**



No.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATERCLOSETS		LAVATORIES		BATHTUBS/ SHOWERS
				MALE	FEMALE	MALE	FEMALE	
1	Assembly (continued)	A-1 ^d	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200		---
		A-2 ^d	Nightclubs, bars, taverns, dance halls and buildings for similar purposes	1 per 40	1 per 40	1 per 75		---
			Restaurants, banquet halls and food courts	1 per 75	1 per 75	1 per 200		---
		A-3 ^d	Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums	1 per 125	1 per 65	1 per 200		---
			Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750		---
			Places of worship and other religious services	1 per 150	1 per 75	1 per 200		---

(continued)

(Insert Facing Page 547)

TABLE 2902.1—continued
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a
(See Sections 2902.2 and 2902.3)



No.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATERCLOSETS		LAVATORIES		BATHTUBS/ SHOWERS
				MALE	FEMALE	MALE	FEMALE	
1	Assembly	A-4	Coliseums, arenas, skating rinks, pools, and tennis courts for indoor sporting events and activities	1 per 75 for first 1,500 and 1 per 120 for remainder exceeding 1,500	1 per 40 for first 1,520 and 1 per 60 for remainder exceeding 1,520	1 per 200	1 per 150	---
		A-5	Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities	1 per 75 for first 1,500 and 1 per 120 for remainder exceeding 1,500	1 per 40 for first 1,520 and 1 per 60 for remainder exceeding 1,520	1 per 200	1 per 150	---
2	Business	B	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 for first 50 and 1 per 50 for the remainder exceeding 50		1 per 40 for first 80 and 1 per 80 for remainder exceeding 80		---
3	Educational	E	Educational facilities	1 per 50	1 per 30	1 per 100	1 per 60	---
4	Factory and industrial	F-1 and F-2	Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials	1 per 100		1 per 100		See Section 416 of the UPC
5	Institutional	I-1	Residential care	1 per 10		1 per 10		1 per 8
		I-2	Hospitals, ambulatory nursing home care recipient ^b	1 per room ^c		1 per room ^c		1 per 15
			Employees, other than residential care ^b	1 per 25		1 per 35		---
			Visitors other than residential care	1 per 75		1 per 100		---
		I-3	Prisons ^b	1 per cell		1 per cell		1 per 15
			Reformatories, detention centers and correctional centers ^b	1 per 15		1 per 15		1 per 15
			Employees ^b	1 per 25		1 per 35		---
I-4	Adult day care and child day care	1 per 15		1 per 15		1		

(continued)

(Insert Facing Page 548)

TABLE 2902.1—continued
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a
 (See Sections 2902.2 and 2902.3)



No.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATERCLOSETS		LAVATORIES		BATHTUBS/ SHOWERS
				MALE	FEMALE	MALE	FEMALE	
6	Mercantile	M	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750		---
7	Residential	R-1	Hotels, motels, boarding houses (transient)	1 per sleeping unit		1 per sleeping unit		1 per sleeping unit
		R-2	Dormitories, fraternities, sororities and boarding houses (not transient)	1 per 10		1 per 10		1 per 8
			Apartment house	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit
		R-3	One- and two-family dwellings	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit
			Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8
R-4	Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8		
8	Storage	S-1 S-2	Structures for the storage of goods, warehouses, storehouses and freight depots, low and moderate hazard	1 per 100		1 per 100		See Section 416 of the UPC

- a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by this code.
- b. Toilet facilities for employees shall be separate from facilities for inmates or care recipients.
- c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient sleeping units shall be permitted where such room is provided with direct access from each patient sleeping unit and with provisions for privacy.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.



story above or below the space required to be provided with toilet facilities, or conveniently in a building adjacent thereto on the same property, and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

Exception: The location and maximum travel distances to required employee facilities in factory and industrial occupancies are permitted to exceed that required by this section, provided that the location and maximum travel distance are *approved*.

2902.3.1 Access. The route to the public toilet facilities required by Section 2902.3 shall not pass through kitchens, food preparation areas, unpackaged food storage areas, storage rooms or closets. Access to the required facilities shall be from within the building or from the exterior of the building. Access to toilets serving multiple tenants shall be through a common use area and not through an area controlled by a tenant. All routes shall comply with the accessibility requirements of this code. The public shall have access to the required toilet facilities at all times that the building is occupied. For other requirements for plumbing facilities, see Chapter 11.

2902.3.1.1 Food preparation areas. Toilet rooms shall not open directly into a room used for the preparation of food for service to the public or residents of Group R-2 boarding homes and residential treatment facilities licensed by Washington state.

2902.3.2 Location of toilet facilities in occupancies other than malls. In occupancies other than covered and open mall buildings, the required *public* and employee toilet facilities shall be located in each building not more than one

2902.5 Drinking fountain location. Drinking fountains shall not be required to be located in individual tenant spaces provided that public drinking fountains are located within a travel distance of 500 feet of the most remote location in the tenant space and not more than one story above or below the tenant space. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 feet. Drinking fountains shall be located on an accessible route. Drinking fountains shall not be located in toilet rooms.

2902.5.1 Drinking fountain number. Occupant loads over 30 shall have one drinking fountain for the first 150 occupants, then one per each additional 500 occupants.

Exceptions:

1. Sporting facilities with concessions serving drinks shall have one drinking fountain for each 1000 occupants.
2. A drinking fountain need not be provided in a drinking or dining establishment.

2902.5.2 Multistory buildings. Drinking fountains shall be provided on each floor having more than 30 occupants in schools, dormitories, auditoriums, theaters, offices and public buildings.

2902.5.3 Penal institutions. Penal institutions shall have one drinking fountain on each cell block floor and one on each exercise floor.

2902.6 Dwelling units. Dwelling units shall be provided with a kitchen sink.

2902.7 Water closet space requirements. The water closet stool in all occupancies shall be located in a clear space not less than 30 inches (762 mm) in width, with a clear space in front of the stool of not less than 24 inches (610 mm).

2902.8 Water. Each required sink, lavatory, bathtub and shower stall shall be equipped with hot and cold running water necessary for its normal operation.

(Insert Facing Page 550)

3002.4 Elevator car to accommodate ambulance stretcher. In buildings four stories in height or more, and in buildings which are required to have an elevator and contain Group R-1, R-2 or I Occupancies on a level other than the exit discharge level, at least one elevator shall be provided for fire department emergency access to all floors. Such elevator car shall be of such a size and arrangement to accommodate a 24-inch by 84-inch (610 mm by 2134 mm) ambulance stretcher with not less than 5-inch (127 mm) radius corners, in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than 3 inches (76 mm) high and shall be placed inside on both sides of the hoistway door frame.

3004.3 Area of vents. Except as provided for in Section 3004.3.1, the area of the vents shall not be less than 3-1/2 percent of the area of the hoistway nor less than 3 square feet (0.28m²) for each elevator car, and not less than 3-1/2 percent nor less than 0.5 square feet (0.047 m²) for each dumbwaiter car in the hoistway, whichever is greater. The total required vent area shall be equipped with dampers that remain powered closed until activated open by the fire alarm system panel. The dampers shall open upon loss of power.



(Insert Facing Page 552)

3006.2 Venting. Machinery spaces, machine rooms, control spaces, and control rooms that contain solid-state equipment for elevator operation shall be provided with an independent ventilation or air-conditioning system to protect against the overheating of the electrical equipment. Ventilation systems shall use outdoor makeup air. The system shall service the equipment space only, and shall be capable of maintaining the temperature and humidity within the range established by the manufacturer's specifications. Where no manufacturer specifications are available, the equipment space temperature shall be maintained at no less than 55°F and no more than 90°F.

The cooling load for the equipment shall include the BTU output of the elevator operation equipment as specified by the manufacturer based on one hour of continuous operation. The outdoor design temperature for ventilation shall be from the 0.5% column for summer from the Puget Sound Chapter of ASHRAE publication "*Recommended Outdoor Design Temperatures, Washington State.*" The following formula shall be used to calculate flow rate for ventilation:

$$\text{CFM} = \text{BTU output of elevator machine room equipment} / [1.08 \times (\text{acceptable machine room temp} - \text{makeup air temp})]$$

Exception: For buildings four stories or less, natural or mechanical means may be used in lieu of an independent ventilation or air-conditioning system to keep the equipment space ambient air temperature and humidity in the range specified by the elevator equipment manufacturer.

(Insert Facing Page 553)

3103.1 General. The provisions of this section shall apply to structures erected for a period of less than 180 days. Tents and other membrane structures erected for a period of less than 180 days shall comply with the International Fire Code. Those erected for a longer period of time shall comply with the applicable sections of this code.

Exception: The building official may authorize unheated tents and yurts under 500 square feet accommodating an R-1 occupancy for recreational use as a temporary structure and allow them to be used indefinitely.

(Insert Facing Page 558)

B L A N K

3109.3 Public swimming pools. This section is not adopted. Public swimming pools barriers are regulated by WAC 246-260-031(4).

(Insert Facing Page 560)

B L A N K

B L A N K

3401.6 Alternative compliance. Work performed in accordance with the 2009 International Existing Building Code as amended in WAC 51-50-480000 shall be deemed to comply with the provisions of this chapter.

provisions of this Code than the existing building or structure was prior to the alteration.

Exceptions:

1. An existing stairway shall not be required to comply with the requirements of Section 1009 where the existing space and construction does not allow a reduction in pitch or slope.
2. Handrails otherwise required to comply with Section 1009.12 shall not be required to comply with the requirements of Section 1012.6 regarding full extension of the handrails where such extensions would be hazardous due to plan configuration.
3. In buildings considered existing structures on July 1, 2010, dwelling units shall be permitted to have a ceiling height of not less than 7 feet (2134 mm).

3404.1 General. Except as provided by Section 3401.4 or this section, alterations to any building or structure shall comply with the requirements of the Code for new construction. Alterations shall be such that the existing building or structure is no less conforming with the

(Insert Facing Page 570)

B L A N K

B L A N K

3410.1 Conformance. Buildings or structures moved into or within the jurisdiction shall comply with the provisions of this code, the International Residential Code (WAC 51-51), the International Mechanical Code (WAC 51-52), the International Fire Code (WAC 51-54), the Uniform Plumbing Code and Standards (WAC 51-56 and 51-57), the Washington State Energy Code (WAC 51-11) and the Washington State Ventilation and Indoor Air Quality Code (WAC 51-13) for new buildings or structures.

Exception: Group R-3 buildings or structures are not required to comply if:

1. The original occupancy classification is not changed, and
2. The original building is not substantially remodeled or rehabilitated.

For the purposes of this section a building shall be considered to be substantially remodeled when the costs of remodeling exceed 60 percent of the value of the building exclusive of the costs relating to preparation, construction, demolition or renovation of foundations.

(Insert Facing Page 573)

3411.7 Alterations affecting an area containing a primary function. Where an alteration affects the accessibility to, or contains an area of primary function, the route to the primary function area shall be accessible. The accessible route to the primary function area shall include toilet facilities, telephones or drinking fountains serving the area of primary function.

Exceptions:

1. The costs of providing the accessible route are not required to exceed 20 percent of the costs of the alteration affecting the area of primary function.
2. This provision does not apply to alterations limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. This provision does not apply to alterations limited solely to mechanical systems, electrical systems, installation or alteration of fire protection systems and abatement of hazardous materials.
4. This provision does not apply to alterations undertaken for the primary purpose of increasing the accessibility of a facility.
5. This provision does not apply to altered areas limited to *Type B dwellings* and *sleeping units*.

(Insert Facing Page 574)

3411.8.11 Toilet rooms. Where it is technically infeasible to alter existing toilet and bathing facilities to be accessible, an accessible family or assisted use toilet or bathing facility constructed in accordance with Section 1109.2.1 is permitted. The family or assisted use facility shall be located on the same floor and in the same area as the existing facility. The number of toilet facilities and water closets required by the State Building Code is permitted to be reduced by one, in order to provide accessible features.

B L A N K

ASTM—continued

C150-12 Specifications for Portland Cement Table 2507.2 |

C595-12 Specification for Blended Hydraulic Cements Table 2507.2 |

(Insert Facing Page 593)

ASTM—continued

C1157-11 Standard Performance Specifications for Hydraulic Cement..... 1903.1

(Insert Facing Page 594)

B L A N K

B L A N K

ASTM—continued

E2558-09	Standard Test Method for Determining particulate matter emissions from Fires in Low Mass Wood-Burning Fireplaces	2114.1
----------	---	--------

(Insert Facing Page 597)

B L A N K

NFPA—continued

720-12

Standard for the Installation of Carbon Monoxide (CO) Detection and
Warning Equipment in Dwelling Units 908.7

(Insert Facing Page 605)

**WASHINGTON STATE
AMENDMENTS TO THE**

**INTERNATIONAL EXISTING BUILDING CODE
2012 Edition**

101.6 Appendices. The code official is authorized to require rehabilitation and retrofit of buildings, structures, or individual structural members in accordance with the appendices of this code if such appendices have been individually adopted. Appendix A, Guidelines for the Seismic Retrofit of Existing Buildings, is hereby adopted as part of this code without any specific adoption by the local jurisdiction.

101.4 Applicability. When requested by the permit applicant, this code shall apply to the repair, alteration, change of occupancy and relocation of buildings existing on the date of adoption of this code, regardless of occupancy, subject to the criteria of Sections 101.4.1 and 101.4.2. When compliance with this code has not been requested, compliance with the State Building Code as adopted in Title 51 WAC shall be demonstrated.

101.4.1 Buildings not previously occupied. A building or portion of a building that has not been previously occupied or used for its intended purpose in accordance with the laws in existence at the time of its completion shall comply with the provisions of the State Building Code as adopted in Title 51 WAC, for new construction or with any current permit for such occupancy.

101.4.2 Buildings previously occupied. The legal occupancy of any building existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the International Fire Code, or as deemed necessary by the code official to mitigate an unsafe building. For the purpose of this section, "unsafe building" is not to be construed as mere lack of compliance with the current code.

102.4.1.1 Fire prevention. The provisions of the International Fire Code shall apply to matters affecting or relating to structures, processes and premises regarding : the hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and the construction, extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises from occupancy or operation except as specifically provided for in this Code.

407.1 Conformance. No change shall be made in the use or occupancy of any building that would place the building in a different division of the same group of occupancy or in a different group of occupancies, unless such building is made to comply with the requirements of the International Building Code for such division or group of occupancy. Subject to the approval of the building official, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups without conforming to all the requirements of the International Building Code for those groups, provided the new or proposed use is less hazardous, based on life and fire risk, than the existing use. The hazard tables of Chapter 9 may be used to demonstrate the relative fire and life risk of the existing and the new proposed uses.

(Insert Facing Page 18)

B L A N K

B L A N K

505.1 Scope. Level 3 alterations apply where the work area exceeds 50% of the floor area of the building.

(Insert Facing Page 23)

B L A N K

707.1 Minimum requirements. Level 1 alterations to existing buildings or structures shall comply with the Washington State Energy Code (chapter 51-11C WAC).

(Insert Facing Page 31)

B L A N K

804.1 Scope. The requirements of this section shall be limited to work areas in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the work areas are located or otherwise beyond the work area.

Exception: For Level 2 alteration projects in which the fire protection requirements constitute an excessive burden, the fire protection requirements may be modified or waived by the fire code official.

811.1 Minimum requirements. Level 2 alterations to existing buildings or structures shall comply with the Washington State Energy Code (chapter 51-11C WAC).

(Insert Facing Page 42)

B L A N K

907.4.1 Evaluation and analysis. An engineering evaluation and analysis that establishes the structural adequacy of the altered structure shall be prepared by a registered design professional and submitted to the code official. For structures assigned to Seismic Design Category D, the registered design professional shall submit to the code official a seismic evaluation report of the existing building based on one of the procedures specified in Section 101.5.4.2. This seismic evaluation report shall not be required for buildings in compliance with the benchmark building provisions of ASCE 31, Section 3.2.

(Insert Facing Page 44)

908.1 Minimum requirements. Level 3 alterations to existing buildings or structures shall comply with the Washington State Energy Code (chapter 51-11C WAC).

(Insert Facing Page 45)

B L A N K

1012.1.1 Compliance with Chapter 9. The requirements of Chapter 8 shall be applicable throughout the building for the new occupancy classification based on the separation conditions set forth in Sections 1012.1.1.1 and 1012.1.1.2. All existing buildings with a change of occupancy classification shall comply with the seismic provisions of Section 1007.3.

B L A N K

1201.1 Scope. It is the intent of this chapter to provide means for the preservation of historic buildings as defined in Chapter 2. It is the purpose of this chapter to encourage cost-effective preservation of original or restored architectural elements and features and to provide a historic building that will result in a reasonable degree of safety, based on accepted life and fire safety practices, compared to the existing building. Historical buildings shall comply with the provisions of this chapter relating to their repair, alteration, relocation and change of occupancy.

1204.1 Accessibility requirements. The provisions of Sections 605 and 706 shall apply to buildings and facilities designated as historic structures that undergo alterations, unless technically infeasible. Where compliance with the requirements for accessible routes, ramps, entrances, or toilet facilities would threaten or destroy the historic significance of the building or facility, as determined by the professional responsible for the historical documentation of the project, the alternative requirements of Sections 1104.1.1 through 1104.1.4 for that element shall be permitted.

Exception: Type B dwelling or sleeping units required by Section 1107 of the International Building Code are not required to be provided in historical buildings.

1203.9 Stairway railings. Historically significant stairways shall be accepted without complying with the handrail and guard requirements. Existing handrails and guards at all stairs shall be permitted to remain, provided they are not structurally dangerous.

(Insert Facing Page 56)

1205.14 Natural light. When it is determined by the professional responsible for the historical documentation of the project that compliance with the natural light requirements of Section 911.1 will lead to loss of historic character or historic materials in the building, the existing level of natural lighting shall be considered acceptable.

1205.10 One-hour fire-resistant assemblies. Where one-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is wood lath or metal lath and plaster.

(Insert Facing Page 57)

B L A N K

1301.2 Conformance. Buildings or structures moved into or within the jurisdiction shall comply with the provisions of this code, the International Residential Code (chapter 51-51 WAC), the International Mechanical Code (chapter 51-52 WAC), the International Fire Code (chapter 51-54 WAC), the Uniform Plumbing Code and Standards (chapters 51-56 and 51-57 WAC), and the Washington State Energy Code (chapter 51-11 WAC) for new buildings or structures.

Exception: Group R-3 buildings or structures are not required to comply if:

1. The original occupancy classification is not changed; and
2. The original building is not substantially remodeled or rehabilitated.

For the purposes of this section, a building shall be considered to be substantially remodeled when the costs of remodeling exceed 60 percent of the value of the building exclusive of the costs relating to preparation, construction, demolition or renovation of foundations.

SECTION 1302 REQUIREMENTS

This section is not adopted.