

**Chapter 51-50 WAC**  
**STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE 2018 EDITION OF THE**  
**INTERNATIONAL BUILDING CODE**  
(Formerly chapter 51-40 WAC)

Last Update: 12/13/19

**WAC**

51-50-001	Authority.
51-50-002	Purpose.
51-50-003	International Building Code.
51-50-005	International Building Code requirements for barrier-free accessibility.
51-50-007	Exceptions.
51-50-008	Implementation.
51-50-009	Recyclable materials, compost, and solid waste storage.
51-50-0108	Temporary structures and uses.
51-50-0200	Chapter 2—Definitions.
51-50-0303	Section 303—Assembly Group A.
51-50-0305	Section 305—Educational Group E.
51-50-0306	Section 306—Factory Group F.
51-50-0308	Section 308—Institutional Group I.
51-50-0309	Section 309—Mercantile Group M.
51-50-0310	Section 310—Residential Group R.
51-50-0312	Reserved.
51-50-0403	Section 403—High-rise buildings.
51-50-0406	Reserved.
51-50-0407	Section 407—Group I-2.
51-50-0412	Section 412—Aircraft-related occupancies.
51-50-0420	Section 420—Groups I-1, R-1, R-2, R-3.
51-50-0422	Section 422—Ambulatory care facilities.
51-50-0427	Section 427—Electric vehicle charging infrastructure.
51-50-0502	Reserved.
51-50-0503	Section 503—General building height and area limitations.
51-50-0504	Section 504—Building height and number of stories.
51-50-0505	Reserved.
51-50-0506	Section 506—Building area.
51-50-0508	Section 508—Mixed use and occupancy.
51-50-0509	Section 509—Incidental uses.
51-50-0510	Section 510—Special provisions.
51-50-0601	Section 601—General.
51-50-0602	Section 602—Construction classification.
51-50-0603	Section 603—Combustible material in Types I and II construction.
51-50-0703	Section 703—Fire-resistance ratings and fire tests.
51-50-0704	Section 704—Fire-resistance rating of structural members.
51-50-0705	Section 705—Exterior walls and projections.
51-50-0706	Section 706—Fire walls.
51-50-07070	Section 707—Fire barriers.
51-50-0708	Section 708—Reserved.
51-50-0710	Section 710—Reserved.
51-50-0713	Section 713—Shaft enclosures.
51-50-0716	Section 716—Opening protectives.
51-50-0717	Section 717—Ducts and air transfer openings.
51-50-0718	Section 718—Concealed spaces.
51-50-0722	Section 722—Calculated fire resistance.
51-50-0803	Section 803—Wall and ceiling finishes.
51-50-0902	Section 902—Reserved.
51-50-0903	Section 903—Automatic sprinkler systems.
51-50-0907	Section 907—Fire alarm and detection systems.
51-50-0908	Section 908—Reserved.
51-50-0909	Section 909—Smoke control systems.
51-50-0911	Section 911—Reserved.
51-50-0913	Section 913—Fire pumps.
51-50-0915	Section 915—Carbon monoxide detection.
51-50-1004	Section 1004—Occupant load.
51-50-1005	Section 1005—Reserved.
51-50-1006	Section 1006—Number of exits and exit access doorways.
51-50-1007	Section 1007—Reserved.
51-50-1008	Section 1008—Means of egress illumination.
51-50-1009	Section 1009—Accessible means of egress.
51-50-10100	Section 1010—Doors, gates, and turnstiles.
51-50-1011	Section 1011—Stairways.
51-50-1012	Section 1012—Ramps.
51-50-1014	Reserved.
51-50-1015	Reserved.
51-50-1018	Section 1018—Reserved.
51-50-1019	Section 1019—Exit access stairways and ramps.
51-50-1020	Section 1020—Corridors.
51-50-1023	Section 1023—Interior exit stairways and ramps.
51-50-10240	Section 1024—Exit passageways.
51-50-1028	Reserved.

51-50-10300 Section 1030—Emergency escape and rescue.  
51-50-1101 Section 1101—General.  
51-50-11050 Section 1105—Accessible entrances.  
51-50-1106 Section 1106—Parking and passenger loading facilities.  
51-50-1107 Section 1107—Dwelling units and sleeping units.  
51-50-11090 Section 1109—Other features and facilities.  
51-50-1202 Section 1202—Ventilation.  
51-50-1203 Section 1203—Temperature control.  
51-50-1204 Section 1204—Temperature control.  
51-50-1206 Section 1206—Sound transmission.  
51-50-1207 Section 1207—Interior space dimensions.  
51-50-1208 Reserved.  
51-50-1209 Section 1209—Toilet and bathroom requirements.  
51-50-1210 Section 1210—Reserved.  
51-50-1403 Section 1403—Performance requirements.  
51-50-1405 Section 1405—Reserved.  
51-50-1406 Section 1406—Combustible materials on the exterior sides of exterior walls.  
51-50-1602 Reserved.  
51-50-1604 Section 1604—General design requirements.  
51-50-1607 Reserved.  
51-50-1609 Section 1609—Reserved.  
51-50-1613 Section 1613—Earthquake loads.  
51-50-1702 Section 1702—Definitions.  
51-50-1705 Section 1705—Required special inspections and tests.  
51-50-17090 Preconstruction load tests.  
51-50-1710 Section 1710—Reserved.  
51-50-1715 Section 1715—Reserved.  
51-50-1807 Section 1807—Foundation walls, retaining walls and embedded posts and poles.  
51-50-1901 Section 1901—Reserved.  
51-50-1903 Section 1903—Reserved.  
51-50-1904 Section 1904—Reserved.  
51-50-1905 Section 1905—Reserved.  
51-50-1908 Section 1908—Reserved.  
51-50-1909 Section 1909—Reserved.  
51-50-2104 Section 2104—Reserved.  
51-50-2106 Reserved.  
51-50-21070 Section 2107—Allowable stress design.  
51-50-2108 Section 2108—Reserved.  
51-50-2111 Section 2111—Masonry fireplaces.  
51-50-2114 Section 2114—Emission standards.  
51-50-2303 Section 2303—Minimum standards and quality.  
51-50-2400 Chapter 24—Glass and glazing.  
51-50-2407 Reserved.  
51-50-2603 Reserved.  
51-50-2702 Section 2702—Emergency and standby power systems.  
51-50-2900 Chapter 29—Plumbing systems.  
51-50-3001 Reserved.  
51-50-30020 Reserved.  
51-50-3004 Section 3004—Reserved.  
51-50-30050 Section 30050—Machine rooms.  
51-50-3006 Section 3006—Elevators and conveying systems.  
51-50-3009 Reserved.  
51-50-3101 Section 3101—General.  
51-50-3102 Section 3102—Membrane structures.  
51-50-3103 Temporary structures.  
51-50-3108 Section 3108—Reserved.  
51-50-3109 Section 3109—Swimming pools, spas and other water recreation devices.  
51-50-3114 Section 3114—Fixed guideway transit and passenger rail systems.  
51-50-3304 Section 3304—Site work.  
51-50-3401 Section 3401—Reserved.  
51-50-3404 Section 3404—Reserved.  
51-50-3410 Section 3410—Reserved.  
51-50-3411 Section 3411—Reserved.  
51-50-3500 Chapter 35—Referenced standards.  
51-50-4700 Appendix D—Fire districts.  
51-50-480000 2015 International Existing Building Code.

INTERNATIONAL EXISTING BUILDING CODE  
2015 EDITION

51-50-480101 Section 101—General.  
51-50-480102 Section 102—Reserved.  
51-50-480302 Reserved.  
51-50-480305 Reserved.  
51-50-480307 Section 307—Reserved.  
51-50-480403 Reserved.  
51-50-480405 Section 405—Reserved.  
51-50-480407 Reserved.  
51-50-480409 Reserved.  
51-50-480410 Reserved.  
51-50-480505 Reserved.  
51-50-480506 Reserved.

51-50-480607 Section 607—Reserved.  
51-50-480704 Section 704—Reserved.  
51-50-480705 Reserved.  
51-50-480707 Reserved.  
51-50-480708 Energy conservation.  
51-50-480711 Section 711—Reserved.  
51-50-480804 Reserved.  
51-50-480807 Section 807—Reserved.  
51-50-480808 Section 808—Reserved.  
51-50-480811 Energy conservation.  
51-50-480906 Reserved.  
51-50-480907 Reserved.  
51-50-480908 Energy conservation.  
51-50-480912 Section 912—Reserved.  
51-50-481002 Section 1002—Special use and occupancy.  
51-50-481012 Reserved.  
51-50-481101 Chapter 11—Reserved.  
51-50-481102 Reserved.  
51-50-481103 Section 1103—Reserved.  
51-50-481104 Reserved.  
51-50-481105 Section 1105—Reserved.  
51-50-481106 Reserved.  
51-50-481201 Section 1201—Historic buildings—General.  
51-50-481203 Fire safety.  
51-50-481204 Change of occupancy.  
51-50-481205 Reserved.  
51-50-481301 Relocated or moved buildings—General.  
51-50-481302 Requirements.  
51-50-481500 Reserved.  
51-50-490000 Appendix N—Solar readiness.

**DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER**

51-50-004 Conflicts with Washington State Ventilation and Indoor Air Quality Code. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-004, filed 12/17/03, effective 7/1/04.] Repealed by WSR 10-03-097, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.031 and 19.27.074.

51-50-0107 Temporary structures and uses. [Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0107, filed 12/19/06, effective 7/1/07.] Amended and decodified by WSR 10-03-097, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.031 and 19.27.074. Recodified as § 51-50-0108.

51-50-0302 Section 302—Classification. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0302, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.

51-50-0313 Section 313—Licensed Care Group LC. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0313, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.

51-50-0419 Section 419—Group LC. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0419, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.

51-50-0707 Section 707—Shaft enclosures. [Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0707, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0707, filed 12/17/03, effective 7/1/04.] Amended and decodified by WSR 10-03-097, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.031 and 19.27.074. Recodified as § 51-50-0708.

51-50-1010 Section 1010—Ramps. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1010, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.

51-50-1017 Corridors. [Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1017, filed 12/19/06, effective 7/1/07.] Amended and decodified by WSR 10-03-097, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.031 and 19.27.074. Recodified as § 51-50-1018.

51-50-1024 Section 1024—Assembly. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1024, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.

51-50-1030 Emergency escape and rescue. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1030, filed 1/19/16, effective 7/1/16.] Repealed by stipulated order 16-2-00594-34 of Thurston County Superior Court, WSR 16-11-018, filed 5/6/16, effective 6/30/16.

51-50-1103 Section 1103—Scoping requirements. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1103, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.

- 51-50-1104 Section 1104—Accessible route. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1104, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.
- 51-50-1105 Section 1105—Accessible entrances. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1105, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.
- 51-50-1109 Section 1109—Other features and facilities. [Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-1109, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1109, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.
- 51-50-1605 Section 1605—Load combinations. [Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-1605, filed 12/2/04, effective 7/1/05.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.
- 51-50-1709 Section 1709—Structural observations. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1709, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.
- 51-50-1714 Section 1714—Preconstruction load tests. [Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1714, filed 12/19/06, effective 7/1/07.] Amended and decodified by WSR 10-03-097, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.031 and 19.27.074. Recodified as § 51-50-1715.
- 51-50-2107 Section 2107—Working stress design. [Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-2107, filed 12/2/04, effective 7/1/05.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.
- 51-50-2406 Section 2406—Safety glazing. [Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-2406, filed 12/5/05, effective 7/1/06.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.
- 51-50-3002 Section 3002—Hoistway enclosures. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3002, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.
- 51-50-3003 Section 3003—Emergency operations. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3003, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.
- 51-50-3005 Section 3005—Conveying systems. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3005, filed 12/17/03, effective 7/1/04.] Repealed by WSR 07-01-091, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW.
- 51-50-31200 Section 31-2—Standard test method for particulate emissions from fireplaces. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-31200, filed 12/17/03, effective 7/1/04.] Repealed by WSR 13-04-067, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW.
- 51-50-3408 Section 3408—Moved structures. [Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3408, filed 12/17/03, effective 7/1/04.] Amended and decodified by WSR 10-03-097, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.031 and 19.27.074. Recodified as § 51-50-3410.
- 51-50-3409 Section 3409—Accessibility for existing buildings. [Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3409, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3409, filed 12/17/03, effective 7/1/04.] Amended and decodified by WSR 10-03-097, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.031 and 19.27.074. Recodified as § 51-50-3411.

**WAC 51-50-001 Authority.** These rules are adopted under the authority of chapter 19.27 RCW.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-001, filed 12/17/03, effective 7/1/04.]

**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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-002, filed 12/17/03, effective 7/1/04.]

**(Effective until July 1, 2020)**

**WAC 51-50-003 International Building Code.** The 2015 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-003, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-003, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-003, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-003, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-003, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 04-18-033, § 51-50-003, filed 8/25/04, effective 9/25/04. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-003, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-003 International Building Code.** The 2018 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-003, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-003, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-003, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-003, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-003, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-003, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 04-18-033, § 51-50-003, filed 8/25/04, effective 9/25/04. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-003, filed 12/17/03, effective 7/1/04.]

**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.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-005, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-005, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-005, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 04-18-033, § 51-50-005, filed 8/25/04, effective 9/25/04. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-005, filed 12/17/03, effective 7/1/04.]

**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 chapter 19.27A RCW shall not apply unless specifically adopted by the authority having jurisdiction. The 2015 International Existing Building Code is included in the adoption of this code in Section 101.4.7 and amended in WAC 51-50-480000.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-007, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-007, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-007, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-007, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-007, filed 12/17/03, effective 7/1/04.]

**(Effective until July 1, 2020)**

**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, 2016.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-008, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-008, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-008, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-008, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-008, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**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, 2020.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-008, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-008, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-008, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-008, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-008, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-008, filed 12/17/03, effective 7/1/04.]

**WAC 51-50-009 Recyclable materials, compost, and solid waste storage.** For the purposes of this section, the following definitions shall apply:

**COMPOST** means biodegradable solid wastes that are separated for composting such as food waste, food soiled paper and yard waste.

**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, compost, and solid waste for all new buildings.

**EXCEPTION:** 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-009, filed 1/19/16, effective 7/1/16; WSR 04-01-108, § 51-50-009, filed 12/17/03, effective 7/1/04.]

**WAC 51-50-0108 Temporary structures and uses.**

**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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, amended and recodified as § 51-50-0108, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0107, filed 12/19/06, effective 7/1/07.]

**(Effective until July 1, 2020)**

**WAC 51-50-0200 Chapter 2—Definitions.**

**SECTION 202—DEFINITIONS.**

**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.

**ASSISTED LIVING FACILITY.** A home or other institution, licensed by the state of Washington, providing housing, basic services and assuming general responsibility for the safety and well-being of residents under chapters 18.20 RCW and 388-78A WAC. These facilities may provide care to residents with symptoms consistent with dementia requiring additional security measures.

**BOTTLE FILLING STATION.** A plumbing fixture connected to the potable water distribution system and sanitary drainage system that is designed and intended for filling personal use drinking water bottles or containers not less than 10 inches (254 mm) in height. Such fixtures can be separate from or integral to a drinking fountain and can incorporate a water filter and a cooling system for chilling the drinking water.

**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.

**CLIMATE ZONE.** A geographical region that has been assigned climatic criteria as specified in the Washington State Energy Code.

**CLUSTER.** Clusters are multiple *portable school classrooms* separated by less than the requirements of the building code for separate buildings.

**EFFICIENCY DWELLING UNIT.** A dwelling unit containing only one habitable room.

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



**MASS TIMBER.** Structural elements of Type IV construction primarily of solid, built-up, panelized or engineered wood products that meet minimum cross section dimensions of Type IV construction.

**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.

**NONCOMBUSTIBLE PROTECTION (See MASS TIMBER).** Noncombustible material, in accordance with Section 703.5, designed to increase the fire-resistance rating and delay the combustion of mass timber.

**PORTABLE SCHOOL CLASSROOM.** A prefabricated structure consisting of one or more rooms with direct exterior egress from the classroom(s). The structure is transportable in one or more sections and is designed to be used as an educational space with or without a permanent foundation. The structure shall be capable of being demounted and relocated to other locations as needs arise.

**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.

**STAGED EVACUATION.** A method of emergency response, that engages building components and trained staff to provide occupant safety during an emergency. Emergency response involves moving or holding certain occupants at temporary locations for a brief period of time before evacuating the building. This response is used by ambulatory surgery facility and assisted living facilities to protect the health and safety of fragile occupants and residents.

**WALL, LOAD-BEARING.** Any wall meeting either of the following classifications:

1. Any metal or wood stud wall that supports more than 100 pounds per linear foot (1459 N/m) of vertical load in addition to its own weight.
2. Any masonry or concrete, or mass timber wall that supports more than 200 pounds per linear foot (2919 N/m) of vertical load in addition to its own weight.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0200, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0200, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-089, § 51-50-0200, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0200, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0200, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-0200, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0200, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-0200, filed 12/5/05, effective 7/1/06. Statutory Authority:

**(Effective July 1, 2020)**

**WAC 51-50-0200 Chapter 2—Definitions.**

**SECTION 202—DEFINITIONS.**

**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.

**ASSISTED LIVING FACILITY.** A home or other institution, licensed by the state of Washington, providing housing, basic services and assuming general responsibility for the safety and well-being of residents under chapters 18.20 RCW and 388-78A WAC. These facilities may provide care to residents with symptoms consistent with dementia requiring additional security measures.

**BOTTLE FILLING STATION.** A plumbing fixture connected to the potable water distribution system and sanitary drainage system that is designed and intended for filling personal use drinking water bottles or containers not less than 10 inches (254 mm) in height. Such fixtures can be separate from or integral to a drinking fountain and can incorporate a water filter and a cooling system for chilling the drinking water.

**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.

**CLIMATE ZONE.** A geographical region that has been assigned climatic criteria as specified in the Washington State Energy Code.

**CLUSTER.** Clusters are multiple *portable school classrooms* separated by less than the requirements of the building code for separate buildings.

**EFFICIENCY DWELLING UNIT.** A dwelling unit where all permanent provisions for living, sleeping, eating and cooking are contained in a single room.

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

**MASS TIMBER.** Structural elements of Type IV construction primarily of solid, built-up, panelized or engineered wood products that meet minimum cross section dimensions of Type IV construction.

**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.

**NONCOMBUSTIBLE PROTECTION (For MASS TIMBER).** Noncombustible material, in accordance with Section 703.5, designed to increase the fire-resistance rating and delay the combustion of mass timber.

**PORTABLE SCHOOL CLASSROOM.** A prefabricated structure consisting of one or more rooms with direct exterior egress from the classroom(s). The structure is transportable in one or more sections and is designed to be used as an educational space with or without a permanent foundation. The structure shall be capable of being demounted and relocated to other locations as needs arise.

**RESIDENTIAL SLEEPING SUITES.** A unit that provides multiple rooms or spaces for up to five residents, includes provisions for sleeping and can include provisions for living, eating, sanitation, and kitchen facilities.

**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.

**STAGED EVACUATION.** A method of emergency response, that engages building components and trained staff to provide occupant safety during an emergency. Emergency response involves moving or holding certain occupants at temporary locations for a brief period of time before evacuating the building. This response is used by ambulatory surgery facility and assisted living facilities to protect the health and safety of fragile occupants and residents.

**WALL, LOAD-BEARING.** Any wall meeting either of the following classifications:

1. Any metal or wood stud wall that supports more than 100 pounds per linear foot (1459 N/m) of vertical load in addition to its own weight.
2. Any masonry or concrete, or mass timber wall that supports more than 200 pounds per linear foot (2919 N/m) of vertical load in addition to its own weight.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0200, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-0200, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0200, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-089, § 51-50-0200, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0200, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0200, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-0200, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0200, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-0200, filed 12/5/05, effective 7/1/06. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0200, filed 12/17/03, effective 7/1/04.]

***(Effective July 1, 2020)***

**WAC 51-50-0303 Section 303—Assembly Group A.**

**303.4 Assembly Group A-3.** Group A-3 occupancy includes assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A including, but not limited to:

- Amusement arcades;
- Art galleries more than 3,000 square feet;
- Bowling alleys;
- Community halls;
- Courtrooms;
- Dance halls (not including food or drink consumption);
- Exhibition halls;
- Funeral parlors;
- Greenhouses for the conservation and exhibition of plants that provide public access;
- Gymnasiums (without spectator seating);
- Indoor swimming pools (without spectator seating);
- Indoor tennis courts (without spectator seating);
- Lecture halls;
- Libraries;
- Museums;
- Places of religious worship;
- Pool and billiard parlors;
- Waiting areas in transportation terminals.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0303, filed 12/12/19, effective 7/1/20.]

**WAC 51-50-0305 Section 305—Educational Group E.**

**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*.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0305, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0305, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0305, filed 12/17/03, effective 7/1/04.]

**WAC 51-50-0306 Section 306—Factory Group F.**

**306.2 Moderate-hazard factory industrial, Group F-1.** Factory industrial uses that are not classified as factory industrial F-2 low hazard shall be classified as F-1 moderate hazard and shall include, but not be limited to, the following:

- Aircraft (manufacturing, not to include repair)
- Appliances
- Athletic equipment
- Automobiles and other motor vehicles
- Bakeries
- Beverages: Over 16 percent alcohol content
- Bicycles
- Boats
- Brooms or brushes

Business machines  
Cameras and photo equipment  
Canvas or similar fabric  
Carpets and rugs (includes cleaning)  
Clothing  
Construction and agricultural machinery  
Disinfectants  
Dry cleaning and dyeing  
Electric generation plants  
Electronics  
Engines (including rebuilding)  
Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities more than 2,500 square feet (232m<sup>2</sup>) in area  
Furniture  
Hemp products  
Jute products  
Laundries  
Leather products  
Machinery  
Marijuana processing  
Metals  
Millwork (sash and door)  
Motion pictures and television filming (without spectators)  
Musical instruments  
Optical goods  
Paper mills or products  
Photographic film  
Plastic products  
Printing or publishing  
Recreational vehicles  
Refuse incineration  
Shoes  
Soaps and detergents  
Textiles  
Tobacco  
Trailers  
Upholstering  
Wood; distillation  
Woodworking (cabinet)

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0306, filed 1/19/16, effective 7/1/16.]

***(Effective until July 1, 2020)***

**WAC 51-50-0308 Section 308—Institutional Group I.**

**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.

**308.3.3 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 I-1, Condition 2.

**308.3.5 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 Institutional Group I-2.** Institutional Group I-2 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*. This group shall include, but not be limited to, the following:

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

**308.6.5 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*.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0308, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0308, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0308, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0308, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0308, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-0308 Section 308—Institutional Group I.**

**308.1.1 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.

**308.2 Institutional Group I-1.** Institutional Group I-1 occupancy shall include buildings, structures or portions thereof for more than six-

teen persons, excluding staff, who reside on a twenty-four-hour basis in a supervised environment and receive custodial care. Buildings of Group I-1 shall be classified as one of the occupancy conditions specified in Section 308.3.1 or 308.3.2. This group shall include, but not be limited to, the following:

- Alcohol and drug centers;

- Assisted living facilities as licensed by Washington state under chapter 388-78A WAC;

- Congregate care facilities;

- Group homes;

- Halfway houses;

- Residential board and care facilities;

- Social rehabilitation facilities;

- Residential treatment facilities as licensed by Washington state under chapter 246-337 WAC.

**308.2.5 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*.

**308.2.6 Licensed care facilities.** Assisted living facilities as licensed by Washington state under chapter 388-78A WAC shall be classified as Group I-1, Condition 2.

Residential treatment facilities licensed by Washington state under chapter 246-337 WAC shall be classified as one or more occupancy types in accordance with chapter 246-337 WAC.

**308.3 Institutional Group I-2.** Institutional Group I-2 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*. This group shall include, but not be limited to, the following:

- Foster care facilities.

- Detoxification facilities.

- Hospice care centers.

- Hospitals.

- Nursing homes.

- Psychiatric hospitals.

**308.5.5 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*.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0308, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0308, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0308, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0308, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0308, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0308, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-0309 Section 309—Mercantile Group M.**

**309.1 Mercantile Group M.** Mercantile Group M occupancy includes, among others, the use of a building or structure or a portion thereof for the display and sale of merchandise, and involves stocks of goods, wares or merchandise incidental to such purposes and accessible to the public. Mercantile occupancies shall include, but not be limited to, the following:

- Art galleries 3,000 square feet or less;
- Department stores;
- Drug stores;
- Markets;
- Greenhouses for display and sale of plants that provide public access;
- Motor fuel-dispensing facilities;
- Retail or wholesale stores;
- Sales rooms.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0309, filed 12/12/19, effective 7/1/20.]

**WAC 51-50-0310 Section 310—Residential Group R.**

**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.  
GUEST ROOM.  
LODGING HOUSE.  
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
- 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)
- Vacation timeshare properties

**310.5.3 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*.



**310.5.4 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0310, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0310, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0310, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-0310, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0310, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0310, filed 12/17/03, effective 7/1/04.]

**(Effective until July 1, 2020)**

**WAC 51-50-0312 Section 312—Utility and miscellaneous Group U.**

**312.1 General.** Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:

- Agricultural buildings
- Aircraft hangers, accessory to a one- or two-family residence (see Section 412.5)
- Barns
- Carports
- Fences more than 6 feet (1829 mm) in height
- Grain silos, accessory to a residential occupancy
- Greenhouses and other structures used for cultivation, protection or maintenance of plants
- Livestock shelters
- Private garages
- Retaining walls
- Sheds
- Stables
- Tanks
- Towers

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-06-108 and 16-03-064, § 51-50-0312, filed 3/1/16 and 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-0312 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0312, filed 12/12/19, effective 7/1/20; WSR 16-06-108 and 16-03-064, § 51-50-0312, filed 3/1/16 and 1/19/16, effective 7/1/16.]

**(Effective until July 1, 2020)**

**WAC 51-50-0403 Section 403—High-rise buildings.**

**403.3.2 Water supply to required fire pumps.** In all buildings that are more than 420 feet (128 m) in *building height*, and buildings of Type IV-A and IV-B that are more than 120 feet in *building height*, required fire pumps shall be supplied by connections to not fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

EXCEPTION: Two connections to the same main shall be permitted provided that the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through not fewer than one of the connections.

**403.5.4 Smokeproof enclosures.** Every required *interior 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 1023.11.

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 1023.11 provided the portion of the stairway below is separated from the level of exit discharge with a 1-hour fire barrier.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0403, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0403, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0403, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0403, filed 1/20/10, effective 7/1/10.]

**(Effective July 1, 2020)**

**WAC 51-50-0403 Section 403—High-rise buildings.**

**403.3.2 Water supply to required fire pumps.** In all buildings that are more than 420 feet (128 m) in *building height*, and buildings of Type IV-A and IV-B that are more than 120 feet in *building height*, required fire pumps shall be supplied by connections to not fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

EXCEPTION: Two connections to the same main shall be permitted provided that the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through not fewer than one of the connections.

**403.5.4 Smokeproof enclosures.** Every required *interior 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 1023.11. Where interior exit stair-

ways and ramps are pressurized in accordance with Section 909.20.5, the smoke control pressurization system shall comply with the requirements specified in Section 909.6.3.

**403.4.8.3 Standby power loads.** The following are classified as standby power loads:

1. Ventilation and automatic fire detection equipment for smoke-proof enclosures.

2. Elevators.

3. Where elevators are provided in a high-rise building for accessible means of egress, fire service access or occupant self-evacuation, the standby power system shall also comply with Sections 1009.4, 3007 or 3008, as applicable.

4. Sump pumps required by ASME A17.1 serving pit drains at the bottom of elevator hoistways of fire service access or occupant evacuation elevators.

**405.7.2 Smokeproof enclosure.** Every required stairway serving floor levels more than 30 feet (9144 mm) below the finished floor of its level of exit discharge shall comply with the requirements for a smokeproof enclosure as provided in Sections 909.20 and 1023.11. Where interior exit stairways and ramps are pressurized in accordance with Section 909.20.5, the smoke control pressurization system shall comply with the requirements specified in Section 909.6.3.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0403, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-0403, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0403, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0403, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0403, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-0406 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0406, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0406, filed 12/19/06, effective 7/1/07.]

***(Effective until July 1, 2020)***

**WAC 51-50-0407 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0407, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0407, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0407, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0407, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-0407, filed 12/2/04, effective 7/1/05.]

***(Effective July 1, 2020)***

**WAC 51-50-0407 Section 407—Group I-2.**

**407.4.4.3 Access to corridor.** Movement from habitable rooms shall not require passage through more than three doors and 100 feet (30,480 mm) distance of travel within the suite.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0407, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0407, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0407, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0407, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0407, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-0407, filed 12/2/04, effective 7/1/05.]

***(Effective until July 1, 2020)***

**WAC 51-50-0412 Section 412—Aircraft-related occupancies.**

**[F]412.8.3 Means of egress.** The means of egress from heliports and helistops shall comply with the provisions of Chapter 10. Landing areas located on buildings or structures shall have two or more means of egress. For landing areas less than 60 feet in length or less than 2,000 square feet in area, the second means of egress is permitted to be a fire escape, alternating tread device or ladder leading to the floor below. On Group I-2 roofs with helistops or helipads, rooftop structures enclosing exit stair enclosures or elevator shafts shall be enclosed with fire barriers and opening protectives that match the rating of their respective shaft enclosures below.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0412, filed 1/19/16, effective 7/1/16.]

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

***(Effective July 1, 2020)***

**WAC 51-50-0412 Section 412—Aircraft-related occupancies.**

**412.2.2.1 Stairways.** Stairways in airport traffic control towers shall be in accordance with Section 1011. Exit stairways shall be smokeproof enclosures complying with one of the alternatives provided in Section 909.20. Where interior exit stairways and ramps are pressurized in accordance with Section 909.20.5, the smoke control pressurization system shall comply with the requirements specified in Section 909.6.3.

**[F]412.8.3 Means of egress.** The means of egress from heliports, helipads and helistops shall comply with the provisions of Chapter 10. Landing areas located on buildings or structures shall have two or more means of egress. For landing areas less than 60 feet in length or less than 2,000 square feet (186 m<sup>2</sup>) in area, the second means of

egress is permitted to be a fire escape, alternating tread device or ladder leading to the floor below. On Group I-2 roofs with heliports or helipads and helistops, rooftop structures enclosing exit stair enclosures or elevator shafts shall be enclosed with fire barriers and opening protectives that match the rating of their respective shaft enclosures below.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0412, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0412, filed 1/19/16, effective 7/1/16.]

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

***(Effective until July 1, 2020)***

**WAC 51-50-0420 Section 420—Groups I-1, R-1, R-2, R-3.**

**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 Reserved.**

**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.** 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 1030. 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 Reserved.**

**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 ICC A117.1.

**420.7.8 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.

**420.8 Licensed care cooking facilities.** In Group I-1, Condition 2 assisted living facilities licensed under chapter 388-78A WAC and residential treatment facilities licensed under chapter 246-337 WAC, rooms or spaces that contain a cooking facility with domestic cooking appliances shall be permitted to be open to the corridor where all of the following criteria are met:

1. The number of care recipients housed in the smoke compartment is not greater than 30.
2. The number of care recipients served by the cooking facility is not greater than 30.
3. Only one cooking facility area is permitted in a smoke compartment.
4. The types of domestic cooking appliances permitted are limited to ovens, cooktops, ranges, warmers and microwaves.
5. The corridor is a clearly identified space delineated by construction or floor pattern, material or color.
6. The space containing the domestic cooking facility shall be arranged so as not to obstruct access to the required exit.
7. A domestic cooking hood installed and constructed in accordance with Section 505 of the *International Mechanical Code* is provided over the cooktop or range.
8. The domestic cooking hood provided over the cooktop or range shall be equipped with an automatic fire-extinguishing system of a type recognized for protection of domestic cooking equipment. Preengineered automatic extinguishing systems shall be tested in accordance with UL 300A and *listed* and *labeled* for the intended application. The system shall be installed in accordance with this code, its listing and the manufacturer's instructions.
9. A manual actuation device for the hood suppression system shall be installed in accordance with Sections 904.12.1 and 904.12.2.
10. An interlock device shall be provided such that upon activation of the hood suppression system, the power or fuel supply to the cooktop or range will be turned off.
11. A shut-off for the fuel and electrical power supply to the cooking equipment shall be provided in a location that is accessible only to staff.
12. A timer shall be provided that automatically deactivates the cooking appliances within a period of not more than 120 minutes.
13. A portable fire extinguisher shall be installed in accordance with Section 906 of the *International Fire Code*.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0420, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0420, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0420, filed 1/20/10, effective 7/1/10.]

**(Effective July 1, 2020)**

**WAC 51-50-0420 Section 420—Groups I-1, R-1, R-2, R-3.**

**420.2 Separation walls.** Walls separating dwelling units in the same building, walls separating sleeping units in the same building and walls separating dwelling or sleeping units from other occupancies contiguous to them in the same building shall be constructed as fire partitions in accordance with Section 708. Buildings containing multiple sleeping units with common use or central kitchens shall not be classified as a single dwelling.

EXCEPTIONS:

1. Where sleeping units include private bathrooms, walls between bedrooms and the associated private bathrooms are not required to be constructed as fire partitions.
2. Where sleeping units are constructed as suites, walls between bedrooms within the sleeping unit and the walls between the bedrooms and associated living spaces are not required to be constructed as fire partitions.
3. In Groups R-3 facilities, walls within the dwelling units or sleeping units are not required to be constructed as fire partitions.
4. Groups R-2 and I-1 arranged into residential sleeping suites containing a maximum of five sleeping residents. Separation between bedrooms, living areas and toilet rooms within these residential sleeping suites shall not be required.
5. Group I-1 sleeping areas arranged so that a dedicated staff member has direct observation over a multiple resident sleeping room, without intervening full height walls, shall not be required to provide fire partitions within the resident sleeping area.

**420.11 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.

**420.11.1 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.

**420.11.2 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.

**420.11.3 Smoke and carbon monoxide alarm requirements.** 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.

**420.11.4 Escape windows and doors.** Every sleeping room shall be provided with emergency escape and rescue windows as required by Section 1030. 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.

**420.11.5 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 ICC A117.1.

**420.11.6 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.

**420.12 Licensed care cooking facilities.** In Group I-1, Condition 2 assisted living facilities licensed under chapter 388-78A WAC and residential treatment facilities licensed under chapter 246-337 WAC, rooms or spaces that contain a cooking facility with domestic cooking appliances shall be permitted to be open to the corridor where all of the following criteria are met:

1. The number of care recipients housed in the smoke compartment is not greater than 30.

2. The number of care recipients served by the cooking facility is not greater than 30.

3. Only one cooking facility area is permitted in a smoke compartment.

4. The types of domestic cooking appliances permitted are limited to ovens, cooktops, ranges, warmers and microwaves.

5. The corridor is a clearly identified space delineated by construction or floor pattern, material or color.

6. The space containing the domestic cooking facility shall be arranged so as not to obstruct access to the required exit.

7. A domestic cooking hood installed and constructed in accordance with Section 505 of the *International Mechanical Code* is provided over the cooktop or range.

8. The domestic cooking hood provided over the cooktop or range shall be equipped with an automatic fire-extinguishing system of a type recognized for protection of domestic cooking equipment. Preengineered automatic extinguishing systems shall be tested in accordance with UL 300A and *listed* and *labeled* for the intended application. The system shall be installed in accordance with this code, its listing and the manufacturer's instructions.

9. A manual actuation device for the hood suppression system shall be installed in accordance with Sections 904.12.1 and 904.12.2.

10. An interlock device shall be provided such that upon activation of the hood suppression system, the power or fuel supply to the cooktop or range will be turned off.

11. A shut-off for the fuel and electrical power supply to the cooking equipment shall be provided in a location that is accessible only to staff.

12. A timer shall be provided that automatically deactivates the cooking appliances within a period of not more than 120 minutes.

13. A portable fire extinguisher shall be installed in accordance with Section 906 of the *International Fire Code*.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0420, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0420, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0420, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0420, filed 1/20/10, effective 7/1/10.]



**(Effective until July 1, 2020)**

**WAC 51-50-0422 Section 422—Ambulatory care facilities.**

**422.3.1 Means of egress.** Where ambulatory care facilities require smoke compartmentation in accordance with Section 422.3, the fire safety evacuation plans provided in accordance with Section 1001.4 shall identify the building components necessary to support a staged evacuation emergency response in accordance with Sections 403 and 404 of the *International Fire Code*.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0422, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0422, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0422, filed 1/20/10, effective 7/1/10.]

**(Effective July 1, 2020)**

**WAC 51-50-0422 Section 422—Ambulatory care facilities.**

**422.3.1 Means of egress.** Where ambulatory care facilities require smoke compartmentation in accordance with Section 422.3, the fire safety evacuation plans provided in accordance with Section 1002.2 shall identify the building components necessary to support Sections 403 and 404 of the *International Fire Code*.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0422, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0422, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0422, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0422, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-0427 Section 427—Electric vehicle charging infrastructure.**

**427.1 Scope.** The provisions of this section shall apply to the construction of new buildings serving Group B, Group R-1 hotel and motel only, and Group R-2 occupancies.

**427.2 Required electric vehicle charging infrastructure.** Where parking is provided, five percent of parking spaces shall be provided with electric vehicle charging infrastructure in compliance with Sections 427.3, 427.4 and 427.5. When the calculation of percent served results in a fractional parking space, the applicant shall round up to the next whole number.

EXCEPTION: Group R and Group B occupancies served by less than 20 on-site parking spaces.

**427.3 Electrical room(s).** Electrical room(s) serving parking areas shall be designed to accommodate the electrical equipment and distribution required to serve a minimum of 20 percent of the total parking spaces with 208/240 V 40-amp electric vehicle charging infrastructure.

**427.4 Electric vehicle charging infrastructure.** Electric vehicle charging infrastructure shall be installed meeting one of the following requirements:

1. A minimum number of 208/240 V 40-amp, electric vehicle charging stations required to serve the parking spaces specified in section 427.2. The electric vehicle charging stations shall be located to serve spaces designated for parking and charging electric vehicles, or

2. Additional service capacity, space for future meters, panel capacity or space for additional panels, and raceways for future installation of electric vehicle charging stations. The service capacity and raceway size shall be designed to accommodate the future installation of the number of 208/240 V 40-amp, electric vehicle charging stations specified in section 427.2. The raceway shall terminate at spaces designated for parking and charging electric vehicles in the future.

Where designated electric vehicle charging locations serve exterior on-grade parking spaces that are located more than 4 feet from a building, raceways shall be extended below grade to a pull box in the vicinity of the designated future electric vehicle charging locations or stub above grade in the vicinity of the designated future electric vehicle charging locations, protected from vehicles by a curb or other device.

EXCEPTION: In lieu of surface-mounted raceway between the electrical panel and the designated electric vehicle charging locations, it is permitted to provide permanent markings indicating the pathway for future raceway, and one-inch diameter capped sleeves through each wall and floor assembly that are penetrated along that route. This pathway and the locations of capped sleeves shall also be indicated on the electrical plans. Raceway shall be installed for any portion of the pathway located below slabs, below grade, or within floor, wall or roof assemblies.

**427.5 Electric vehicle charging infrastructure for accessible parking spaces.** When electric vehicle charging infrastructure is required, one accessible parking space shall be served by electric vehicle charging infrastructure. The electric vehicle charging infrastructure may also serve adjacent parking spaces not designated as accessible parking.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0427, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-0502 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0502, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0502, filed 12/19/06, effective 7/1/07.]

**(Effective until July 1, 2020)**

**WAC 51-50-0503 Section 503—General building height and area limitations.**

**503.1 General.** Unless otherwise specifically modified in Chapter 4 and this chapter, *building height*, number of stories and *building area* shall not exceed the limits specified in Sections 504 and 506 based on the type of construction as determined by Section 602 and the occupancies as determined by Section 302 except as modified hereafter. *Building height*, number of stories and *building area* provisions shall be applied independently. For the purposes of determining area limita-

tions, height limitations and type of construction, each portion of a building separated by one or more fire walls complying with Section 706 shall be considered to be a separate building.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0503, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-0503 Section 503—General building height and area limitations.**

**503.1.4 Occupied roofs.** A roof level or portion thereof shall be permitted to be used as an occupied roof provided the occupancy of the roof is an occupancy that is permitted by Table 504.4 for the story immediately below the roof. The area of the occupied roofs shall not be included in the building area as regulated by Section 506.

- EXCEPTIONS:
1. The occupancy located on an occupied roof shall not be limited to the occupancies allowed on the story immediately below the roof where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and occupant notification in accordance with Sections 907.5.2.1 and 907.5.2.3 is provided in the area of the occupied roof. Emergency voice/alarm communication system notification in accordance with Section 907.5.2.2 shall also be provided in the area of the occupied roof where such system is required elsewhere in the building.
  2. Assembly occupancies shall be permitted on roofs of open parking spaces of Type I or Type II construction, in accordance with the exception to Section 903.2.1.6.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0503, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0503, filed 1/19/16, effective 7/1/16.]

**(Effective until July 1, 2020)**

**WAC 51-50-0504 Section 504—Building height and number of stories.**

**Table 504.3  
Allowable Building Height in Feet Above Grade Plane<sup>a</sup>**

Occupancy Classification	Type of Construction												
	See Footnotes	Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
A, B, E, F, M, S, U	NS <sup>b</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	270	180	85	85	70	60
H-1, H-2, H-3, H-5	NS <sup>c,d</sup>	UL	160	65	55	65	55	120	90	65	65	50	40
	S												
H-4	NS <sup>c,d</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	140	100	85	85	70	60
I-1 Condition 1, I-3	NS <sup>d,e</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	180	120	85	85	70	60
I-1 Condition 2, I-2	NS <sup>d,e,f</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85									
I-4	NS <sup>d,g</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	180	120	85	85	70	60

Occupancy Classification	Type of Construction												
	See Footnotes	Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
R	NS <sup>d</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S13R	60	60	60	60	60	60	60	60	60	60	60	60
	S	UL	180	85	75	85	75	270	180	85	85	70	60

For SI: 1 foot = 304.8 mm.

UL = Unlimited; NS = Buildings not equipped throughout with an automatic sprinkler system; S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2.

- a See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.
- b See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.
- c New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.
- d The NS value is only for use in evaluation of existing building height in accordance with the International Existing Building Code.
- e New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies Condition 1, see Exception 1 of Section 903.2.6.
- f New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6 and Section 1103.5 of the *International Fire Code*.
- g For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.
- h New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.

**Table 504.4**

**Allowable Number of Stories Above Grade Plane<sup>a,b</sup>**

Occupancy Classification	Type of Construction												
	See Footnotes	Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
A-1	NS	UL	5	3	2	3	2	3	3	3	3	2	1
	S	UL	6	4	3	4	3	9	6	4	4	3	2
A-2	NS	UL	11	3	2	3	2	3	3	3	3	2	1
	S	UL	12	4	3	4	3	18	12	6	4	3	2
A-3	NS	UL	11	3	2	3	2	3	3	3	3	2	1
	S	UL	12	4	3	4	3	18	12	6	4	3	2
A-4	NS	UL	11	3	2	3	2	3	3	3	3	2	1
	S	UL	12	4	3	4	3	18	12	6	4	3	2
A-5	NS	UL	UL	UL	UL	UL	UL	1	1	1	UL	UL	UL
	S	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
B	NS	UL	11	5	3	5	3	5	5	5	5	3	2
	S	UL	12	6	4	6	4	18	12	9	6	4	3
E	NS	UL	5	3	2	3	2	3	3	3	3	1	1
	S	UL	6	4	3	4	3	9	6	4	4	2	2
F-1	NS	UL	11	4	2	3	2	3	3	3		2	1
	S	UL	12	5	3	4	3	10	7	5	5	3	2
F-2	NS	UL	11	5	3	4	3	5	5	5	5	3	2
	S	UL	12	6	4	5	4	12	8	6	6	4	3
H-1	NS <sup>c,d</sup>	1	1	1	1	1	1	NP	NP	NP	1	1	NP
	S							1	1	1			
H-2	NS <sup>c,d</sup>	UL	3	2	1	2	1	1	1	1	2	1	1
	S							2	2	2			
H-3	NS <sup>c,d</sup>	UL	6	4	2	4	2	3	3	3	4	2	1
	S							4	4	4			
H-4	NS <sup>c,d</sup>	UL	7	5	3	5	3	5	5	5	5	3	2
	S	UL	8	6	4	6	4	8	7	6	6	4	3

Occupancy Classification	Type of Construction												
	See Footnotes	Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
H-5	NS <sup>c,d</sup>	4	4	3	3	3	3	2	2	2	3	3	2
	S							3	3	3			
I-1 Condition 1	NS <sup>d,e</sup>	UL	9	4	3	4	3	4	4	4	4	3	2
	S	UL	10	5	4	5	4	10	7	5	5	4	3
I-1 Condition 2	NS <sup>d,e</sup>	UL	9	4	3	4	3	3	3	3	4	3	2
	S	UL	10	5				10	6	4			
I-2	NS <sup>d,f</sup>	UL	4	2	1	1	NP	NP	NP	NP	1	1	NP
	S	UL	5	3				7	5	1			
I-3	NS <sup>d,e</sup>	UL	4	2	1	2	1	2	2	2	2	2	1
	S	UL	5	3	2	3	2	7	5	3	3	3	2
I-4	NS <sup>d,g</sup>	UL	5	3	2	3	2	3	3	3	3	1	1
	S	UL	6	4	3	4	3	9	6	4	4	2	2
M	NS	UL	11	4	2	4	2	4	4	4	4	3	1
	S	UL	12	5	3	5	3	12	8	6	5	4	2
R-1h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	2
	S13R	4	4	4								3	
	S	UL	12	5								5	5
R-2h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	2
	S13R	4	4	4								4	3
	S	UL	12	5								5	5
R-3h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	3
	S13D	4	4	4								3	3
	S13R	4	4	4								4	4
	S	UL	12	5								5	5
R-4h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	2
	S13D	4	4	4								3	2
	S13R	4	4	4								4	3
	S	UL	12	5								5	5
S-1	NS	UL	11	4	2	3	2	4	4	4	4	3	1
	S	UL	12	5	3	4	3	10	7	5	5	4	2
S-2	NS	UL	11	5	3	4	3	4	4	4	4	4	2
	S	UL	12	6	4	5	4	12	8	5	5	5	3
U	NS	UL	5	4	2	3	2	4	4	4	4	2	1
	S	UL	6	5	3	4	3	9	6	5	5	3	2

UL = Unlimited; NP = Not permitted; NS = Buildings not equipped throughout with an automatic sprinkler system; S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2.

- <sup>a</sup> See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.
- <sup>b</sup> See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.
- <sup>c</sup> New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.
- <sup>d</sup> The NS value is only for use in evaluation of existing building height in accordance with the International Existing Building Code.
- <sup>e</sup> New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies Condition 1, see Exception 1 of Section 903.2.6.
- <sup>f</sup> New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6 and Section 1103.5 of the *International Fire Code*.
- <sup>g</sup> For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.
- <sup>h</sup> New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.

**504.4.1 Stair enclosure pressurization increase.** For Group R1 and R2 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. Legally required standby power shall be provided for buildings constructed in compliance with this section and be connected to stairway shaft pressurization equipment, elevators and lifts used for accessible means of egress, hoistway pressurization equipment (if provided) and other life safety equipment as determined by the authority having jurisdiction. For the purposes of this section, legally required standby power shall comply with 2014 NEC Section 701.12, options (A), (B), (C), (D), (F), or (G) or subsequent revised section number(s).

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0504, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0504, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0504, filed 2/1/13, effective 7/1/13. Statutory Authority: Chapter 19.27 RCW. WSR 10-24-059, § 51-50-0504, filed 11/29/10, effective 7/1/11.]

**(Effective July 1, 2020)**

**WAC 51-50-0504 Section 504—Building height and number of stories.**

**Table 504.3  
Allowable Building Height in Feet Above Grade Plane<sup>a</sup>**

Occupancy Classification	Type of Construction												
	See Footnotes	Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
A, B, E, F, M, S, U	NS <sup>b</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	270	180	85	85	70	60
H-1, H-2, H-3, H-5	NS <sup>c,d</sup>	UL	160	65	55	65	55	120	90	65	65	50	40
	S												
H-4	NS <sup>c,d</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	140	100	85	85	70	60
I-1 Condition 1, I-3	NS <sup>d,e</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	180	120	85	85	70	60
I-1 Condition 2, I-2	NS <sup>d,e,f</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S <sup>i</sup>	UL	180	85									
I-4	NS <sup>d,g</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	270	180	85	85	70	60
R <sup>h</sup>	NS <sup>d</sup>	UL	160	65	55	65	55	65	65	65	65	50	40
	S13D	60	60	60	60	60	60	60	60	60	60	50	40
	S13R	60	60	60	60	60	60	60	60	60	60	60	60
	S	UL	180	85	75	85	75	270	180	85	85	70	60

For SI: 1 foot = 304.8 mm.

UL = Unlimited; NS = Buildings not equipped throughout with an automatic sprinkler system; S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2.

- a See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.
- b See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.
- c New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.
- d The NS value is only for use in evaluation of existing building height in accordance with the International Existing Building Code.
- e New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies Condition 1, see Exception 1 of Section 903.2.6.
- f New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6 and Section 1103.5 of the *International Fire Code*.
- g For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.
- h New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.
- i I-1, Condition 2 Assisted living facilities licensed in accordance with chapter 388-78A WAC and residential treatment facilities as licensed by Washington state under chapter 246-337 WAC shall be permitted to use the allowable height above grade plane for Group R-2 occupancies.

**Table 504.4**

**Allowable Number of Stories Above Grade Plane<sup>a,b</sup>**

Occupancy Classification	Type of Construction												
	See Footnotes	Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
A-1	NS	UL	5	3	2	3	2	3	3	3	3	2	1
	S	UL	6	4	3	4	3	9	6	4	4	3	2
A-2	NS	UL	11	3	2	3	2	3	3	3	3	2	1
	S	UL	12	4	3	4	3	18	12	6	4	3	2
A-3	NS	UL	11	3	2	3	2	3	3	3	3	2	1
	S	UL	12	4	3	4	3	18	12	6	4	3	2
A-4	NS	UL	11	3	2	3	2	3	3	3	3	2	1
	S	UL	12	4	3	4	3	18	12	6	4	3	2
A-5	NS	UL	UL	UL	UL	UL	UL	1	1	1	UL	UL	UL
	S	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
B	NS	UL	11	5	3	5	3	5	5	5	5	3	2
	S	UL	12	6	4	6	4	18	12	9	6	4	3
E	NS	UL	5	3	2	3	2	3	3	3	3	1	1
	S	UL	6	4	3	4	3	9	6	4	4	2	2
F-1	NS	UL	11	4	2	3	2	3	3	3		2	1
	S	UL	12	5	3	4	3	10	7	5	5	3	2
F-2	NS	UL	11	5	3	4	3	5	5	5	5	3	2
	S	UL	12	6	4	5	4	12	8	6	6	4	3
H-1	NS <sup>c,d</sup>	1	1	1	1	1	1	NP	NP	NP	1	1	NP
	S							1	1	1			
H-2	NS <sup>c,d</sup>	UL	3	2	1	2	1	1	1	1	2	1	1
	S							2	2	2			
H-3	NS <sup>c,d</sup>	UL	6	4	2	4	2	3	3	3	4	2	1
	S							4	4	4			
H-4	NS <sup>c,d</sup>	UL	7	5	3	5	3	5	5	5	5	3	2
	S	UL	8	6	4	6	4	8	7	6	6	4	3
H-5	NS <sup>c,d</sup>	4	4	3	3	3	3	2	2	2	3	3	2
	S							3	3	3			
I-1 Condition 1	NS <sup>d,e</sup>	UL	9	4	3	4	3	4	4	4	4	3	2
	S	UL	10	5	4	5	4	10	7	5	5	4	3

Occupancy Classification	Type of Construction												
	See Footnotes	Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
I-1 Condition 2	NS <sup>d,e</sup>	UL	9	4	3	4	3	3	3	3	4	3	2
	S <sup>i</sup>	UL	10	5				10	6	4			
I-2	NS <sup>d,f</sup>	UL	4	2	1	1	NP	NP	NP	NP	1	1	NP
	S	UL	5	3				7	5	1			
I-3	NS <sup>d,e</sup>	UL	4	2	1	2	1	2	2	2	2	2	1
	S	UL	5	3	2	3	2	7	5	3	3	3	2
I-4	NS <sup>d,g</sup>	UL	5	3	2	3	2	3	3	3	3	1	1
	S	UL	6	4	3	4	3	9	6	4	4	2	2
M	NS	UL	11	4	2	4	2	4	4	4	4	3	1
	S	UL	12	5	3	5	3	12	8	6	5	4	2
R-1h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	2
	S13R	4	4									4	3
	S	UL	12	5	5	5	5	18	12	8	5	4	3
R-2h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	2
	S13R	4	4	4								4	3
	S	UL	12	5	5	5	5	18	12	8	5	4	3
R-3h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	3
	S13D	4	4									3	3
	S13R	4	4									4	4
	S	UL	12	5	5	5	5	18	12	5	5	4	4
R-4h	NS <sup>d</sup>	UL	11	4	4	4	4	4	4	4	4	3	2
	S13D	4	4									3	2
	S13R	4	4									4	3
	S	UL	12	5	5	5	5	18	12	5	5	4	3
S-1	NS	UL	11	4	2	3	2	4	4	4	4	3	1
	S	UL	12	5	3	4	3	10	7	5	5	4	2
S-2	NS	UL	11	5	3	4	3	4	4	4	4	4	2
	S	UL	12	6	4	5	4	12	8	5	5	5	3
U	NS	UL	5	4	2	3	2	4	4	4	4	2	1
	S	UL	6	5	3	4	3	9	6	5	5	3	2

UL = Unlimited; NP = Not permitted; NS = Buildings not equipped throughout with an automatic sprinkler system; S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2.

- a See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.
- b See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.
- c New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.
- d The NS value is only for use in evaluation of existing building height in accordance with the International Existing Building Code.
- e New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies Condition 1, see Exception 1 of Section 903.2.6.
- f New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6 and Section 1103.5 of the *International Fire Code*.
- g For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.
- h New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.
- i Group I-1, Condition 2 Assisted living facilities licensed in accordance with chapter 388-78A WAC and residential treatment facilities as licensed by Washington state under chapter 246-337 WAC shall be permitted to use the allowable number of stories for Group R-2 occupancies.

**504.4.1 Stair enclosure pressurization increase.** For Group R-1, R-2, and I-1 Condition 2 Assisted living facilities licensed under chapter 388-78A WAC and residential treatment facilities as licensed by Wash-



ington state under chapter 246-337 WAC located 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 504.4 may be increased by one provided the interior exit stairways and ramps are pressurized in accordance with Sections 909.6.3 and 909.20. Legally required standby power shall be provided in accordance with Sections 909.11 and 2702.2.16 for buildings constructed in compliance with this section and be connected to stairway shaft pressurization equipment, elevators and lifts used for accessible means of egress (if provided), elevator hoistway pressurization equipment (if provided) and other life safety equipment as determined by the authority having jurisdiction. For the purposes of this section, legally required standby power shall comply with 2017 NEC Section 701.12, options (A), (B), (C), (D), (F), or (G) or subsequent revised section number(s).

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0504, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-0504, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0504, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0504, filed 2/1/13, effective 7/1/13. Statutory Authority: Chapter 19.27 RCW. WSR 10-24-059, § 51-50-0504, filed 11/29/10, effective 7/1/11.]

**(Effective until July 1, 2020)**

**WAC 51-50-0505 Section 505—Mezzanines and equipment platforms.**

**505.2.1 Area limitation.** The aggregate area of a *mezzanine* or *mezzanines* within a room shall be not greater than one-third of the floor area of that room or space in which they are located. The enclosed portion of a room shall not be included in a determination of the floor area of the room in which the *mezzanine* is located. In determining the allowable *mezzanine* area, the area of the *mezzanine* shall not be included in the floor area of the room.

EXCEPTIONS: 1. The aggregate area of *mezzanines* in buildings and structures of Type I or II construction for special industrial occupancies in accordance with Section 503.1.1 shall be not greater than two-thirds of the floor area of the room.  
2. The aggregate area of *mezzanines* in buildings and structures of Type I or II construction shall be not greater than one-half of the floor area of the room in buildings and structures equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 and an approved emergency voice/alarm communication system in accordance with Section 907.5.2.2.

**505.2.1.1 Aggregate area of mezzanines and equipment platforms.** Where a room contains both a *mezzanine* and an *equipment platform*, the aggregate area of the two raised floor levels shall be not greater than two-thirds of the floor area of the room or space in which they are located. The area of the *mezzanine* shall not exceed the area determined according to Section 505.2.1.

**505.3.1 Area limitation.** The aggregate area of all *equipment platforms* within a room shall be not greater than two-thirds of the area of the room in which they are located. Where an *equipment platform* is located in the same room as a *mezzanine*, the area of the *mezzanine* shall be determined by Section 505.2.1 and the combined aggregate area of the *equipment platforms* and *mezzanines* shall be not greater than two-thirds of the room in which they are located. The area of the *mezzanine* shall not exceed the area determined according to Section 505.2.1.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0505, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-0505 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0505, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0505, filed 1/19/16, effective 7/1/16.]

**(Effective until July 1, 2020)**

**WAC 51-50-0506 Section 506—Building area. Table 506.2  
Allowable Area Factor (At = NS, S1, S13R, S13D or SM, as applicable)  
In Square Feet<sup>a,b</sup>**

Occupancy Classification	See Footnotes	Type of Construction											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
A-1	NS	UL	UL	15,500	8,500	14,000	8,500	45,000	30,000	18,000	15,000	11,500	5,500
	S1	UL	UL	62,000	34,000	56,000	34,000	180,000	120,000	75,000	60,000	46,000	22,000
	SM	UL	UL	46,500	25,500	42,000	25,500	135,000	90,000	56,250	45,000	34,500	16,500
A-2	NS	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM	UL	UL	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000
A-3	NS	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM	UL	UL	46,500	28,500	42,000	28,500	135,000	90,000	56,000	45,000	34,500	18,000
A-4	NS	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM	UL	UL	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000
A-5	NS	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
	S1												
	SM												
B	NS	UL	UL	37,500	23,000	28,500	19,000	108,000	75,000	45,000	36,000	18,000	9,000
	S1	UL	UL	150,000	92,000	114,000	76,000	432,000	288,000	180,000	144,000	72,000	36,000
	SM	UL	UL	112,500	69,000	85,500	57,000	324,000	216,000	135,000	108,000	54,000	27,000
E	NS	UL	UL	26,500	14,500	23,500	14,500	76,500	51,000	31,875	25,500	18,500	9,500
	S1	UL	UL	106,000	58,000	94,000	58,000	306,000	204,000	127,500	102,000	74,000	38,000
	SM	UL	UL	79,500	43,500	70,500	43,500	229,500	153,000	95,625	76,500	55,500	28,500
F-1	NS	UL	UL	25,000	15,500	19,000	12,000	100,500	67,000	41,875	33,500	14,000	8,500
	S1	UL	UL	100,000	62,000	76,000	48,000	402,000	268,000	167,500	134,000	56,000	34,000
	SM	UL	UL	75,000	46,500	57,000	36,000	301,500	201,000	125,625	100,500	42,000	25,500
F-2	NS	UL	UL	37,500	23,000	28,500	18,000	151,500	101,000	63,125	50,500	21,000	13,000
	S1	UL	UL	150,000	92,000	114,000	72,000	606,000	404,000	252,500	202,000	84,000	52,000
	SM	UL	UL	112,500	69,000	85,500	54,000	454,500	303,000	189,375	151,500	63,000	39,000
H-1	NS <sup>c</sup>	21,000	16,500	11,000	7,000	9,500	7,000	10,500	10,500	10,000	10,500	7,500	NP
	S1												
H-2	NS <sup>c</sup>	21,000	16,500	11,000	7,000	9,500	7,000	10,500	10,500	10,000	10,500	7,500	3,000
	S1												
	SM												

Occupancy Classification	See Footnotes	Type of Construction											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
H-3	NS <sup>e</sup>	UL	60,000	26,500	14,000	17,500	13,000	25,000	25,000	25,000	25,500	10,000	5,000
	S1												
	SM												
H-4	NS <sup>c,d</sup>	UL	UL	37,500	17,500	28,500	17,500	75,000	54,000	40,500	36,000	18,000	6,500
	S1	UL	UL	150,000	70,000	114,000	70,000	288,000	216,000	162,000	144,000	72,000	26,000
	SM	UL	UL	112,500	52,500	85,500	52,500	216,000	162,000	121,500	108,000	54,000	19,500
H-5	NS <sup>c,d</sup>	UL	UL	37,500	23,000	28,500	19,000	72,000	54,000	40,500	36,000	18,000	9,000
	S1	UL	UL	150,000	92,000	114,000	76,000	288,000	216,000	162,000	144,000	72,000	36,000
	SM	UL	UL	112,500	69,000	85,500	57,000	216,000	162,000	121,500	108,000	54,000	27,000

Occupancy Classification	See Footnotes	Type of Construction											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
I-1	NS <sup>d,e</sup>	UL	55,000	19,000	10,000	16,500	10,000	54,000	36,000	18,000	18,000	10,500	4,500
	S1	UL	220,000	76,000	40,000	66,000	40,000	216,000	144,000	72,000	72,000	42,000	18,000
	SM	UL	165,000	57,000	30,000	49,500	30,000	162,000	108,000	54,000	54,000	31,500	13,500
I-2	NS <sup>d,f</sup>	UL	UL	15,000	11,000	12,000	NP	36,000	24,000	12,000	12,000	9,500	NP
	S1	UL	UL	60,000	44,000	48,000	NP	144,000	96,000	48,000	48,000	38,000	NP
	SM	UL	UL	45,000	33,000	36,000	NP	108,000	72,000	36,000	36,000	28,500	NP
I-3	NS <sup>d,e</sup>	UL	UL	15,000	10,000	10,500	7,500	36,000	24,000	12,000	12,000	7,500	5,000
	S1	UL	UL	45,000	40,000	42,000	30,000	144,000	96,000	48,000	48,000	30,000	20,000
	SM	UL	UL	45,000	30,000	31,500	22,500	108,000	72,000	36,000	36,000	22,500	15,000
I-4	NS <sup>d,g</sup>	UL	60,500	26,500	13,000	23,500	13,000	76,500	51,000	25,500	25,500	18,500	9,000
	S1	UL	121,000	106,000	52,000	94,000	52,000	306,000	204,000	102,000	102,000	74,000	36,000
	SM	UL	181,500	79,500	39,000	70,500	39,000	229,500	153,000	76,500	76,500	55,500	27,000
M	NS	UL	UL	21,500	12,500	18,500	12,500	61,500	41,000	25,625	20,500	14,000	9,000
	S1	UL	UL	86,000	50,000	74,000	50,000	246,000	164,000	102,500	82,000	56,000	36,000
	SM	UL	UL	64,500	37,500	55,500	37,500	184,500	123,000	76,875	61,500	42,000	27,000
R-1	NS <sup>d,h</sup>	UL	UL	24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
	S13R												
	S1	UL	UL	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
R-2	NS <sup>d,h</sup>	UL	UL	24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
	S13R												
	S1	UL	UL	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
R-3	NS <sup>d,h</sup>	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
	S13R												
	S1												
R-4	NS <sup>d,h</sup>	UL	UL	24,000	16,000	24,000	16,000	61,000	41,000	25,625	20,500	12,000	7,000
	S13R												
	S1	UL	UL	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
S-1	NS	UL	48,000	26,000	17,500	26,000	17,500	76,500	51,000	31,875	25,500	14,000	9,000
	S1	UL	192,000	104,000	70,000	104,000	70,000	306,000	204,000	127,500	102,000	56,000	36,000
	SM	UL	144,000	78,000	52,500	78,000	52,500	229,500	153,000	95,625	76,500	42,000	27,000
S-2	NS	UL	79,000	39,000	26,000	39,000	26,000	115,500	77,000	48,125	38,500	21,000	13,500
	S1	UL	316,000	156,000	104,000	156,000	104,000	462,000	308,000	192,500	154,000	84,000	54,000
	SM	UL	237,000	117,000	78,000	117,000	78,000	346,500	231,000	144,375	115,500	63,000	40,500

Occupancy Classification	See Footnotes	Type of Construction											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
U	NS	UL	35,500	19,000	8,500	14,000	8,500	54,000	36,000	22,500	18,000	9,000	5,500
	S1	UL	142,000	76,000	34,000	56,000	34,000	216,000	144,000	90,000	72,000	36,000	22,000
	SM	UL	106,500	57,000	25,500	42,000	25,500	162,000	108,000	67,500	54,000	27,000	16,500

For S1: 1 square foot = 0.0929 m<sup>2</sup>.

UL = Unlimited; NP = Not permitted; NS = Buildings not equipped throughout with an automatic sprinkler system; S1 = Buildings a maximum of one story above grade plane equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; SM = Buildings two or more stories above grade plane equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2; S13D = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.3.

- a See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.
- b See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.
- c New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.
- d The NS value is only for use in evaluation of existing building area in accordance with the International Existing Building Code.
- e New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies Condition 1, see Exception 1 of Section 903.2.6.
- f New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6 and Section 1103.5 of the *International Fire Code*.
- g For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.
- h New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.
- i The maximum allowable area for a single-story nonsprinklered Group U greenhouse is permitted to be 9,000 square feet, or the allowable area shall be permitted to comply with Table C102.1 of Appendix C.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0506, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0506, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0506, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0506, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0506, filed 12/19/06, effective 7/1/07.]

**(Effective July 1, 2020)**

**WAC 51-50-0506 Section 506—Building area.**

**Table 506.2**

**Allowable Area Factor (At = NS, S1, S13R, S13D or SM, as applicable)  
In Square Feet<sup>a,b</sup>**

Occupancy Classification	See Footnotes	Type of Construction											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
A-1	NS	UL	UL	15,500	8,500	14,000	8,500	45,000	30,000	18,750	15,000	11,500	5,500
	S1	UL	UL	62,000	34,000	56,000	34,000	180,000	120,000	75,000	60,000	46,000	22,000
	SM	UL	UL	46,500	25,500	42,000	25,500	135,000	90,000	56,250	45,000	34,500	16,500
A-2	NS	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM	UL	UL	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000
A-3	NS	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM	UL	UL	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000
A-4	NS	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM	UL	UL	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000

Occupancy Classification	See Footnotes	Type of Construction											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
A-5	NS	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
	S1												
	SM												
B	NS	UL	UL	37,500	23,000	28,500	19,000	108,000	72,000	45,000	36,000	18,000	9,000
	S1	UL	UL	150,000	92,000	114,000	76,000	432,000	288,000	180,000	144,000	72,000	36,000
	SM	UL	UL	112,500	69,000	85,500	57,000	324,000	216,000	135,000	108,000	54,000	27,000
E	NS	UL	UL	26,500	14,500	23,500	14,500	76,500	51,000	31,875	25,500	18,500	9,500
	S1	UL	UL	106,000	58,000	94,000	58,000	306,000	204,000	127,500	102,000	74,000	38,000
	SM	UL	UL	79,500	43,500	70,500	43,500	229,500	153,000	95,625	76,500	55,500	28,500
F-1	NS	UL	UL	25,000	15,500	19,000	12,000	100,500	67,000	41,875	33,500	14,000	8,500
	S1	UL	UL	100,000	62,000	76,000	48,000	402,000	268,000	167,500	134,000	56,000	34,000
	SM	UL	UL	75,000	46,500	57,000	36,000	301,500	201,000	125,625	100,500	42,000	25,500
F-2	NS	UL	UL	37,500	23,000	28,500	18,000	151,500	101,000	63,125	50,500	21,000	13,000
	S1	UL	UL	150,000	92,000	114,000	72,000	606,000	404,000	252,500	202,000	84,000	52,000
	SM	UL	UL	112,500	69,000	85,500	54,000	454,500	303,000	189,375	151,500	63,000	39,000
H-1	NS <sup>e</sup>	21,000	16,500	11,000	7,000	9,500	7,000	10,500	10,500	10,000	10,500	7,500	NP
	S1												
H-2	NS <sup>e</sup>	21,000	16,500	11,000	7,000	9,500	7,000	10,500	10,500	10,000	10,500	7,500	3,000
	S1												
	SM												
H-3	NS <sup>e</sup>	UL	60,000	26,500	14,000	17,500	13,000	25,500	25,500	25,500	25,500	10,000	5,000
	S1												
	SM												
H-4	NS <sup>c,d</sup>	UL	UL	37,500	17,500	28,500	17,500	72,000	54,000	40,500	36,000	18,000	6,500
	S1	UL	UL	150,000	70,000	114,000	70,000	288,000	216,000	162,000	144,000	72,000	26,000
	SM	UL	UL	112,500	52,500	85,500	52,500	216,000	162,000	121,500	108,000	54,000	19,500
H-5	NS <sup>c,d</sup>	UL	UL	37,500	23,000	28,500	19,000	72,000	54,000	40,500	36,000	18,000	9,000
	S1	UL	UL	150,000	92,000	114,000	76,000	288,000	216,000	162,000	144,000	72,000	36,000
	SM	UL	UL	112,500	69,000	85,500	57,000	216,000	162,000	121,500	108,000	54,000	27,000

Occupancy Classification	See Footnotes	Type of Construction											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
I-1	NS <sup>d,e</sup>	UL	55,000	19,000	10,000	16,500	10,000	54,000	36,000	18,000	18,000	10,500	4,500
	S1	UL	220,000	76,000	40,000	66,000	40,000	216,000	144,000	72,000	72,000	42,000	18,000
	SM	UL	165,000	57,000	30,000	49,500	30,000	162,000	108,000	54,000	54,000	31,500	13,500
I-2	NS <sup>d,f</sup>	UL	UL	15,000	11,000	12,000	NP	36,000	24,000	12,000	12,000	9,500	NP
	S1	UL	UL	60,000	44,000	48,000	NP	144,000	96,000	48,000	48,000	38,000	NP
	SM	UL	UL	45,000	33,000	36,000	NP	108,000	72,000	36,000	36,000	28,500	NP
I-3	NS <sup>d,e</sup>	UL	UL	15,000	10,000	10,500	7,500	36,000	24,000	12,000	12,000	7,500	5,000
	S1	UL	UL	45,000	40,000	42,000	30,000	144,000	96,000	48,000	48,000	30,000	20,000
	SM	UL	UL	45,000	30,000	31,500	22,500	108,000	72,000	36,000	36,000	22,500	15,000
I-4	NS <sup>d,g</sup>	UL	60,500	26,500	13,000	23,500	13,000	76,500	51,000	25,500	25,500	18,500	9,000
	S1	UL	121,000	106,000	52,000	94,000	52,000	306,000	204,000	102,000	102,000	74,000	36,000
	SM	UL	181,500	79,500	39,000	70,500	39,000	229,500	153,000	76,500	76,500	55,500	27,000
M	NS	UL	UL	21,500	12,500	18,500	12,500	61,500	41,000	25,625	20,500	14,000	9,000
	S1	UL	UL	86,000	50,000	74,000	50,000	246,000	164,000	102,500	82,000	56,000	36,000
	SM	UL	UL	64,500	37,500	55,500	37,500	184,500	123,000	76,875	61,500	42,000	27,000

Occupancy Classification	See Footnotes	Type of Construction											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
R-1 <sup>h</sup>	NS <sup>d</sup>	UL	UL	24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
	S13R												
	S1	UL	UL	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
	SM	UL	UL	72,000	48,000	72,000	48,000	184,500	123,000	76,875	61,500	36,000	21,000
R-2 <sup>h</sup>	NS <sup>d</sup>	UL	UL	24,000	16,000	24,000	16,000	61,500	41,000	25.625	20,500	12,000	7,000
	S13R												
	S1	UL	UL	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
	SM	UL	UL	72,000	48,000	72,000	48,000	184,500	123,000	76,875	61,500	36,000	21,000
R-3 <sup>h</sup>	NS <sup>d</sup>	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
	S13D												
	S13R												
	S1												
	SM												
R-4 <sup>h</sup>	NS <sup>d</sup>	UL	UL	24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
	S13D												
	S13R												
	S1	UL	UL	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
	SM	UL	UL	72,000	48,000	72,000	48,000	184,500	123,000	76,875	61,500	36,000	21,000
S-1	NS	UL	48,000	26,000	17,500	26,000	17,500	76,500	51,000	31,875	25,500	14,000	9,000
	S1	UL	192,000	104,000	70,000	104,000	70,000	306,000	204,000	127,500	102,000	56,000	36,000
	SM	UL	144,000	78,000	52,500	78,000	52,500	229,500	153,000	95,625	76,500	42,000	27,000
S-2	NS	UL	79,000	39,000	26,000	39,000	26,000	115,500	77,000	48,125	38,500	21,000	13,500
	S1	UL	316,000	156,000	104,000	156,000	104,000	462,000	308,000	192,500	154,000	84,000	54,000
	SM	UL	237,000	117,000	78,000	117,000	78,000	346,500	231,000	144,375	115,500	63,000	40,500
U	NS <sup>i</sup>	UL	35,500	19,000	8,500	14,000	8,500	54,000	36,000	22,500	18,000	9,000	5,500
	S1	UL	142,000	76,000	34,000	56,000	34,000	216,000	144,000	90,000	72,000	36,000	22,000
	SM	UL	106,500	57,000	25,500	42,000	25,500	162,000	108,000	67,500	54,000	27,000	16,500

For SI: 1 square foot = 0.0929 m<sup>2</sup>.

UL = Unlimited; NP = Not permitted; NS = Buildings not equipped throughout with an automatic sprinkler system; S1 = Buildings a maximum of one story above grade plane equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; SM = Buildings two or more stories above grade plane equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2; S13D = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.3.

- a See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.
- b See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.
- c New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.
- d The NS value is only for use in evaluation of existing building area in accordance with the International Existing Building Code.
- e New Group I-1 and I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6. For new Group I-1 occupancies Condition 1, see Exception 1 of Section 903.2.6.
- f New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6 and Section 1103.5 of the *International Fire Code*.
- g For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.
- h New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.
- i The maximum allowable area for a single-story nonsprinklered Group U greenhouse is permitted to be 9,000 square feet, or the allowable area shall be permitted to comply with Table C102.1 of Appendix C.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0506, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-0506, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-0506, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0506, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0506, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0506, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-0508 Section 508—Mixed use and occupancy.**

**508.4.4.1 Construction.** Required separations shall be *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both, so as to completely separate adjacent occupancies. Mass timber elements serving as fire barriers or horizontal assemblies to separate occupancies in Type IV-B or IV-C construction shall be separated from the interior of the building with an approved thermal barrier consisting of a minimum of 1/2 inch (12.7 mm) gypsum board or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0508, filed 12/26/18, effective 7/1/19.]

**WAC 51-50-0509 Section 509—Incidental uses.**

**509.4.1.1 Type IV-B and IV-C construction.** Where Table 509 specifies a fire-resistance-rated separation, mass timber elements serving as fire barriers or a horizontal assembly in Type IV-B or IV-C construction shall be separated from the interior of the incidental use with an approved thermal barrier consisting of a minimum of 1/2 inch (12.7 mm) gypsum board or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275.

**Table 509  
Incidental Uses**

<b>Room or Area</b>	<b>Separation and/or Protection</b>
Dry type transformers over 112.5 kVA and required to be in a fire resistant room per NEC (NFPA 70) Section 450.21 (B) <sup>1</sup>	1 hour or provide automatic sprinkler system

<sup>1</sup> 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)

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0509, filed 12/26/18, effective 7/1/19. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0509, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0509, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0509, filed 12/19/06, effective 7/1/07.]

**(Effective until July 1, 2020)**

**WAC 51-50-0510 Section 510—Special provisions.**

**510.2 Horizontal building separation allowance.** A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of fire walls, limitation of

number of stories and type of construction where all of the following conditions are met:

1. The buildings are separated with a *horizontal assembly* having a *fire-resistance rating* of not less than 3 hours.

2. The building below the *horizontal assembly* is of Type IA construction.

3. *Shaft, stairway, ramp* and escalator enclosures through the *horizontal assembly* shall have not less than a 2-hour *fire-resistance rating* with opening protective in accordance with Section 716.5.

EXCEPTION: Where the enclosure walls below the *horizontal assembly* have not less than a 3-hour *fire-resistance rating* with opening protectives in accordance with Section 716.5, the enclosure walls extending above the *horizontal assembly* shall be permitted to have a 1-hour *fire-resistance rating* provided:

1. The building above the *horizontal assembly* is not required to be of Type I construction.

2. The enclosure connects fewer than four *stories*; and

3. The enclosure opening protective above the *horizontal assembly* have a *fire protection rating* of not less than 1 hour.

4. The building or buildings above the *horizontal assembly* shall be permitted to have multiple Group A occupancy uses, each with an *occupant load* of less 300, or Group B, Group I-1, Condition 2 licensed care facilities, M, R, or S occupancies.

5. The building below the *horizontal assembly* shall be protected throughout by an *approved automatic sprinkler system* in accordance with Section 903.3.1.1, and shall be permitted to be any occupancy allowed by this code except Group H.

6. The maximum *building height* in feet (mm) shall not exceed the limits set forth in Section 504.3 for the building having the smaller allowable height as measured from the grade plane. Group I-1, Condition 2 licensed care facilities shall be permitted to use the values for maximum height in feet for Group R-2 occupancies.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0510, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-0510 Section 510—Special provisions.**

**510.2 Horizontal building separation allowance.** A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of fire walls, limitation of number of stories and type of construction where all of the following conditions are met:

1. The buildings are separated with a *horizontal assembly* having a *fire-resistance rating* of not less than 3 hours where vertical offsets are provided as part of a *horizontal assembly*, the vertical offset and the structure supporting the vertical offset shall have a *fire-resistance rating* of not less than 3 hours.

2. The building below the *horizontal assembly* is of Type IA construction.

3. *Shaft, stairway, ramp* and escalator enclosures through the *horizontal assembly* shall have not less than a 2-hour *fire-resistance rating* with opening protective in accordance with Section 716.

EXCEPTION: Where the enclosure walls below the *horizontal assembly* have not less than a 3-hour *fire-resistance rating* with opening protectives in accordance with Section 716, the enclosure walls extending above the *horizontal assembly* shall be permitted to have a 1-hour *fire-resistance rating* provided:

1. The building above the *horizontal assembly* is not required to be of Type I construction.

2. The enclosure connects fewer than four *stories*; and

3. The enclosure opening protective above the *horizontal assembly* have a *fire protection rating* of not less than 1 hour.

4. Interior exit stairways located within the Type IA building are permitted to be of combustible materials where both of the following requirements are met:

4.1. The building above the Type IA building is of Type III, IV, or V construction.



4.2. The stairway located in the Type IA building is enclosed by 3-hour *fire-resistance-rated* construction with opening protectives in accordance with Section 716.

**510.5 Group R-1 and R-2 buildings of Type IIIA construction.** For buildings of Type IIIA construction in Groups R-1 and R-2, the maximum allowable height in Table 504.3 shall be increased by 10 feet and the maximum allowable number of stories in Table 504.4 shall be increased by one foot where the first floor assembly above the basement has a *fire-resistance rating* of not less than 3 hours and the floor area is subdivided by 2-hour *fire-resistance-rated* fire walls into areas of not more than 3,000 square feet (279 m<sup>2</sup>).

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0510, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0510, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-0601 Section 601—General.**

**Table 601  
Fire-resistance Rating Requirements for Building Elements (hours)**

Building Element	Type I		Type II		Type III		Type IV				Type V	
	A	B	A	B	A	B	A	B	C	HT	A	B
Primary structural frame <sup>f</sup> (see Section 202)	3 <sup>a</sup>	2 <sup>a</sup>	1	0	1 <sup>b</sup>	0	3 <sup>a</sup>	2 <sup>a</sup>	2 <sup>a</sup>	HT	1	0
Bearing walls												
Exterior <sup>e, f</sup>	3	2	1	0	2	2	3	2	2	2	1	0
Interior	3 <sup>a</sup>	2 <sup>a</sup>	1	0	1	0	3	2	2	1/HT	1	0
Nonbearing walls and partitions exterior	See Table 602											
Nonbearing walls and partitions interior <sup>d</sup>	0	0	0	0	0	0	0	0	0	See Section 602.4.4.6	0	0
Floor construction and associated secondary members (see Section 202)	2	2	1	0	1	0	2	2	2	HT	1	0
Roof construction and associated secondary members (see Section 202)	1 1/2 <sup>b</sup>	1 <sup>b,c</sup>	1 <sup>b,c</sup>	0 <sup>c</sup>	1 <sup>b,c</sup>	0	1 1/2	1	1	HT	1 <sup>b,c</sup>	0

For SI: 1 foot = 304.8 mm.

- a Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b Except in Groups F-1, H, M and S-1 occupancies, fire protection of structural members in roof construction shall not be required, including protection of primary structural frame members, roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d Not less than the fire-resistance rating required by other sections of this code.
- e Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f Not less than the fire-resistance rating as referenced in Section 704.10.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0601, filed 12/26/18, effective 7/1/19.]

**(Effective until July 1, 2020)**

WAC 51-50-0602 Section 602—Construction classification.

**Table 602**  
**Fire-resistance Rating Requirements for Exterior Walls Based on Fire Separation Distance<sup>a,d,g</sup>**

Fire Separation Distance = X (feet)	Type of Construction	Occupancy Group H <sup>e</sup>	Occupancy Group F-1, M, S-1 <sup>f</sup>	Occupancy Group A, B, E, F-2, I, R <sup>1</sup> , S-2, U <sup>h</sup>
X < 5 <sup>b</sup>	All	3	2	1
5 ≤ X < 10	IA, IVA	3	2	11
	Others	2	1	
10 ≤ X < 30	IA, IB, IVA, IVB	2	1	1 <sup>c</sup>
	IIB, VB	1	0	0
	Others	1	1	1 <sup>c</sup>
X ≥ 30	All	0	0	0

For SI: 1 foot = 304.8 mm.

a Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.

b See Section 706.1.1 for party walls.

c Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.

d The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.

e For special requirements for Group H occupancies, see Section 415.6.

f For special requirements for Group S aircraft hangars, see Section 412.3.1.

g Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.

h For a building containing only a Group U occupancy private garage or carport, the exterior wall shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet (1523 mm) or greater.

**602.4 Type IV.** Type IV construction is that type of construction in which the building elements are mass timber or noncombustible materials and have fire-resistance ratings in accordance with Table 601. Mass timber elements shall meet the fire-resistance rating requirements of this section based on either the fire-resistance rating of the noncombustible protection, the mass timber, or a combination of both and shall be determined in accordance with Section 703.2 or 703.3. The minimum dimensions and permitted materials for building elements shall comply with the provisions of this section including Table 602.4.4 and Section 2304.11. Mass timber elements of Types IV-A, IV-B and IV-C construction shall be protected with noncombustible protection applied directly to the mass timber in accordance with Sections 602.4.1 through 602.4.3. The time assigned to the noncombustible protection shall be determined in accordance with Section 703.8 and comply with 722.7.

Cross-laminated timber shall be labeled as conforming to ANSI/APA PRG 320 as referenced in Section 2303.1.4.

Exterior load-bearing walls and nonload-bearing walls shall be mass timber construction, or shall be of noncombustible construction.

EXCEPTION: Exterior load-bearing walls and nonload-bearing walls of Type IV-HT Construction in accordance with Section 602.4.4.

The interior building elements, including nonload-bearing walls and partitions, shall be of mass timber construction or of noncombustible construction.

EXCEPTION: Interior building elements and nonload-bearing walls and partitions of Type IV-HT Construction in accordance with Section 602.4.4.

Combustible concealed spaces are not permitted except as otherwise indicated in Sections 602.4.1 through 602.4.4. Combustible stud spaces

within light frame walls of Type IV-HT construction shall not be considered concealed spaces, but shall comply with Section 718.

In buildings of Type IV-A, B, and C, construction with an occupied floor located more than 75 feet above the lowest level of fire department access, up to and including 12 stories or 180 feet above grade plane, mass timber interior exit and elevator hoistway enclosures shall be protected in accordance with Section 602.4.1.2. In buildings greater than 12 stories or 180 feet above grade plane, interior exit and elevator hoistway enclosures shall be constructed of noncombustible materials.

**602.4.1 Type IV-A.** Building elements in Type IV-A construction shall be protected in accordance with Sections 602.4.1.1 through 602.4.1.6. The required fire-resistance rating of noncombustible elements and protected mass timber elements shall be determined in accordance with Section 703.2 or Section 703.3.

**602.4.1.1 Exterior protection.** The outside face of exterior walls of mass timber construction shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1. All components of the exterior wall covering, shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than  $150 \text{ kW/m}^2$ , a total heat release of less than  $20 \text{ MJ/m}^2$  and an effective heat of combustion of less than  $18 \text{ MJ/kg}$  as determined in accordance with ASTM E1354 and having a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E84 or UL 723. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of  $50 \text{ kW/m}^2$ .

**602.4.1.2 Interior protection.** Interior faces of all mass timber elements, including the inside faces of exterior mass timber walls and mass timber roofs, shall be protected with materials complying with Section 703.5.

**602.4.1.2.1 Protection time.** Noncombustible protection shall contribute a time equal to or greater than times assigned in Table 722.7.1(1), but not less than 80 minutes. The use of materials and their respective protection contributions listed in Table 722.7.1(2), shall be permitted to be used for compliance with Section 722.7.1.

**602.4.1.3 Floors.** The floor assembly shall contain a noncombustible material not less than 1 inch in thickness above the mass timber. Floor finishes in accordance with Section 804 shall be permitted on top of the noncombustible material. The underside of floor assemblies shall be protected in accordance with 602.4.1.2.

**602.4.1.4 Roofs.** The interior surfaces of roof assemblies shall be protected in accordance with Section 602.4.1.2. Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.

**602.4.1.5 Concealed spaces.** Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *International Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction

forming concealed spaces shall be protected in accordance with Section 602.4.1.2.

**602.4.1.6 Shafts.** Shafts shall be permitted in accordance with Sections 713 and 718. Both the shaft side and room side of mass timber elements shall be protected in accordance with Section 602.4.1.2.

**602.4.2 Type IV-B.** Building elements in Type IV-B construction shall be protected in accordance with Sections 602.4.2.1 through 602.4.2.6. The required fire-resistance rating of noncombustible elements or mass timber elements shall be determined in accordance with Section 703.2 or 703.3.

**602.4.2.1 Exterior protection.** The outside face of exterior walls of mass timber construction shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1. All components of the exterior wall covering shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than  $150 \text{ kW/m}^2$ , a total heat release of less than  $20 \text{ MJ/m}^2$  and an effective heat of combustion of less than  $18 \text{ MJ/kg}$  as determined in accordance with ASTM E1354, and having a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E84 or UL 723. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of  $50 \text{ kW/m}^2$ .

**602.4.2.2 Interior protection.** Interior faces of all mass timber elements, including the inside face of exterior mass timber walls and mass timber roofs, shall be protected, as required by this section, with materials complying with Section 703.5.

**602.4.2.2.1 Protection time.** Noncombustible protection shall contribute a time equal to or greater than times assigned in Table 722.7.1(1), but not less than 80 minutes. The use of materials and their respective protection contributions listed in Table 722.7.1(2), shall be permitted to be used for compliance with Section 722.7.1.

**602.4.2.2.2 Protected area.** All interior faces of all mass timber elements shall be protected in accordance with Section 602.4.2.2.1, including the inside face of exterior mass timber walls and mass timber roofs.

EXCEPTION:

Unprotected portions of mass timber ceilings and walls complying with Section 602.4.2.2.4 and the following:

1. Unprotected portions of mass timber ceilings, including attached beams, shall be permitted and shall be limited to an area equal to 20% of the floor area in any dwelling unit or fire area; or
2. Unprotected portions of mass timber walls, including attached columns, shall be permitted and shall be limited to an area equal to 40% of the floor area in any dwelling unit or fire area; or
3. Unprotected portions of both walls and ceilings of mass timber, including attached columns and beams, in any dwelling unit or fire area shall be permitted in accordance with Section 602.4.2.2.3.
4. Mass timber columns and beams which are not an integral portion of walls or ceilings, respectively, shall be permitted to be unprotected without restriction of either aggregate area or separation from one another.

**602.4.2.2.3 Mixed unprotected areas.** In each dwelling unit or fire area, where both portions of ceilings and portions of walls are unprotected, the total allowable unprotected area shall be determined in accordance with Equation 6-1.

(Equation 6-1)

$$(U_{tc}/U_{ac}) + (U_{tw}/U_{aw}) \leq 1$$

where:

- U<sub>tc</sub> = Total unprotected mass timber ceiling areas;
- U<sub>ac</sub> = Allowable unprotected mass timber ceiling area conforming to Section 602.4.2.2.2, Exception 1;
- U<sub>tw</sub> = Total unprotected mass timber wall areas;
- U<sub>aw</sub> = Allowable unprotected mass timber wall area conforming to Section 602.4.2.2.2, Exception 2.

**602.4.2.2.4 Separation distance between unprotected mass timber elements.** In each dwelling unit or fire area, unprotected portions of mass timber walls and ceilings shall be not less than 15 feet from unprotected portions of other walls and ceilings, measured horizontally along the ceiling and from other unprotected portions of walls measured horizontally along the floor.

**602.4.2.3 Floors.** The floor assembly shall contain a noncombustible material not less than 1 inch in thickness above the mass timber. Floor finishes in accordance with Section 804 shall be permitted on top of the noncombustible material. The underside of floor assemblies shall be protected in accordance with Section 602.4.1.2.

**602.4.2.4 Roofs.** The interior surfaces of roof assemblies shall be protected in accordance with Section 602.4.2.2 except, in nonoccupiable spaces, they shall be treated as a concealed space with no portion left unprotected. Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.

**602.4.2.5 Concealed spaces.** Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *International Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected in accordance with Section 602.4.1.2.

**602.4.2.6 Shafts.** Shafts shall be permitted in accordance with Sections 713 and 718. Both the shaft side and room side of mass timber elements shall be protected in accordance with Section 602.4.1.2.

**602.4.3 Type IV-C.** Building elements in Type IV-C construction shall be protected in accordance with Sections 602.4.3.1 through 602.4.3.6. The required fire-resistance rating of building elements shall be determined in accordance with Sections 703.2 or 703.3.

**602.4.3.1 Exterior protection.** The exterior side of walls of combustible construction shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1. All components of the exterior wall covering, shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than 150 kW/m<sup>2</sup>, a total heat release of less than 20 MJ/m<sup>2</sup> and an effective heat of combustion of less than 18 MJ/kg as determined in accordance with ASTM E1354 and having a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E84 or UL 723. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of 50 kW/m<sup>2</sup>.

**602.4.3.2 Interior protection.** Mass timber elements are permitted to be unprotected.

**602.4.3.3 Floors.** Floor finishes in accordance with Section 804 shall be permitted on top of the floor construction.

**602.4.3.4 Roofs.** Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.

**602.4.3.5 Concealed spaces.** Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *International Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1.

**602.4.3.6 Shafts.** Shafts shall be permitted in accordance with Sections 713 and 718. Shafts and elevator hoistway and interior exit stairway enclosures shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1, on both the inside of the shaft and the outside of the shaft.

**602.4.4 Type IV-HT.** Type IV-HT construction (Heavy Timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid wood, laminated heavy timber or structural composite lumber (SCL), without concealed spaces. The minimum dimensions for permitted materials including solid timber, glued-laminated timber, structural composite lumber (SCL) and cross-laminated timber (CLT) and details of Type IV construction shall comply with the provisions of this section, including Table 602.4.4 and Section 2304.11. Exterior walls complying with Section 602.4.4.1 or 602.4.4.2 shall be permitted. Interior walls and partitions not less than 1 hour fire-resistance rating or heavy timber conforming with Section 602.4.4.8.1 shall be permitted. Cross-laminated timber (CLT) dimensions used in this section are actual dimensions. Lumber decking shall be in accordance with Section 2304.9.

**602.4.4.1 Fire-retardant-treated wood in exterior walls.** Fire-retardant-treated wood framing and sheathing complying with Section 2303.2 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less.

**602.4.4.2 Cross-laminated timber in exterior walls.** Cross-laminated timber complying with Section 2303.1.4 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less, provided the exterior surface of the cross-laminated timber is protected by one of the following:

1. Fire-retardant-treated wood sheathing complying with Section 2303.2 and not less than 15/32 inch (12 mm) thick;
2. Gypsum board not less than 1/2 inch (12.7 mm) thick; or
3. A noncombustible material.

**602.4.4.3 Columns.** Wood columns shall be sawn or glued laminated and shall be not less than 8 inches (203 mm), nominal, in any dimension where supporting floor loads and not less than 6 inches (152 mm) nominal in width and not less than 8 inches (203 mm) nominal in depth where supporting roof and ceiling loads only. Columns shall be contin-

uous or superimposed and connected in an approved manner. Protection in accordance with Section 704.2 is not required.

**602.4.4.4 Floor framing.** Wood beams and girders shall be of sawn or glued-laminated timber and shall be not less than 6 inches (152 mm) nominal in width and not less than 10 inches (254 mm) nominal in depth. Framed sawn or glued-laminated timber arches, which spring from the floor line and support floor loads, shall be not less than 8 inches (203 mm) nominal in any dimension. Framed timber trusses supporting floor loads shall have members of not less than 8 inches (203 mm) nominal in any dimension.

**602.4.4.5 Roof framing.** Wood-frame or glued-laminated arches for roof construction, which spring from the floor line or from grade and do not support floor loads, shall have members not less than 6 inches (152 mm) nominal in width and have not less than 8 inches (203 mm) nominal in depth for the lower half of the height and not less than 6 inches (152 mm) nominal in depth for the upper half. Framed or glued-laminated arches for roof construction that spring from the top of walls or wall abutments, framed timber trusses and other roof framing, which do not support floor loads, shall have members not less than 4 inches (102 mm) nominal in width and not less than 6 inches (152 mm) nominal in depth. Spaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76 mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood cover plate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice plates shall be not less than 3 inches (76 mm) nominal in thickness. Where protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches (76 mm) nominal in width.

**602.4.4.6 Floors.** Floors shall be without concealed spaces. Wood floors shall be constructed in accordance with Section 602.4.4.6.1 or 602.4.4.6.2.

**602.4.4.6.1 Sawn or glued-laminated plank floors.** Sawn or glued-laminated plank floors shall be one of the following:

1. Sawn or glued-laminated planks, splined or tongue-and-groove, of not less than 3 inches (76 mm) nominal in thickness covered with 1 inch (25 mm) nominal dimension tongue-and-groove flooring, laid cross-wise or diagonally, 15/32 inch (12 mm) wood structural panel or 1/2 inch (12.7 mm) particleboard.

2. Planks not less than 4 inches (102 mm) nominal in width set on edge close together and well spiked and covered with 1 inch (25 mm) nominal dimension flooring or 15/32 inch (12 mm) wood structural panel or 1/2 inch (12.7 mm) particleboard.

The lumber shall be laid so that no continuous line of joints will occur except at points of support. Floors shall not extend closer than 1/2 inch (12.7 mm) to walls. Such 1/2 inch (12.7 mm) space shall be covered by a molding fastened to the wall and so arranged that it will not obstruct the swelling or shrinkage movements of the floor. Corbelling of masonry walls under the floor shall be permitted to be used in place of molding.

**602.4.4.6.2 Cross-laminated timber floors.** Cross-laminated timber shall be not less than 4 inches (102 mm) in thickness. Cross-laminated timber shall be continuous from support to support and mechanically fastened to one another. Cross-laminated timber shall be permitted to

be connected to walls without a shrinkage gap providing swelling or shrinking is considered in the design. Corbelling of masonry walls under the floor shall be permitted to be used.

**602.4.4.7 Roofs.** Roofs shall be without concealed spaces and wood roof decks shall be sawn or glued laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness; 1 1/8 inch thick (32 mm) wood structural panel (exterior glue); planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors; or of cross-laminated timber. Other types of decking shall be permitted to be used if providing equivalent fire resistance and structural properties.

Cross-laminated timber roofs shall be not less than 3 inches (76 mm) nominal in thickness and shall be continuous from support to support and mechanically fastened to one another.

**602.4.4.8 Partitions and walls.** Partitions and walls shall comply with Section 602.4.4.8.1 or 602.4.4.8.2.

**602.4.4.8.1 Interior walls and partitions.** Interior walls and partitions shall be of solid wood construction formed by not less than two layers of 1 inch (25 mm) matched boards or laminated construction 4 inches (102 mm) thick, or of 1 hour fire-resistance-rated construction.

**602.4.4.8.2 Exterior walls.** Exterior walls shall be of one of the following:

1. Noncombustible materials.
2. Not less than 6 inches (152 mm) in thickness and constructed of one of the following:
  - 2.1. Fire-retardant-treated wood in accordance with Section 2303.2 and complying with Section 602.4.4.1.
  - 2.2. Cross-laminated timber complying with Section 602.4.4.2.

**602.4.4.9 Exterior structural members.** Where a horizontal separation of 20 feet (6096 mm) or more is provided, wood columns and arches conforming to heavy timber sizes complying with Table 602.4.4 shall be permitted to be used externally.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0602, filed 12/26/18, effective 7/1/19.]

**(Effective July 1, 2020)**

**WAC 51-50-0602 Section 602—Construction classification.**

**Table 602**

**Fire-resistance Rating Requirements for Exterior Walls Based on Fire Separation Distance<sup>a,d,g</sup>**

Fire Separation Distance = X (feet)	Type of Construction	Occupancy Group H <sup>e</sup>	Occupancy Group F-1, M, S-1 <sup>f</sup>	Occupancy Group A, B, E, F-2, I, R <sup>1</sup> , S-2, U <sup>h</sup>
X < 5 <sup>b</sup>	All	3	2	1
5 ≤ X < 10	IA, IVA Others	3 2	2 1	1
10 ≤ X < 30	IA, IB, IVA, IVB	2	1	1 <sup>c</sup>



Fire Separation Distance = X (feet)	Type of Construction	Occupancy Group H <sup>e</sup>	Occupancy Group F-1, M, S-1 <sup>f</sup>	Occupancy Group A, B, E, F-2, I, R <sup>i</sup> , S-2, U <sup>h</sup>
	IIB, VB	1	0	0
	Others	1	1	1 <sup>c</sup>
X ≥ 30	All	0	0	0

For SI: 1 foot = 304.8 mm.

- a Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
- b See Section 706.1.1 for party walls.
- c Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
- d The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.
- e For special requirements for Group H occupancies, see Section 415.6.
- f For special requirements for Group S aircraft hangars, see Section 412.3.1.
- g Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.
- h For a building containing only a Group U occupancy private garage or carport, the exterior wall shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet (1523 mm) or greater.

**602.4 Type IV.** Type IV construction is that type of construction in which the building elements are mass timber or noncombustible materials and have fire-resistance ratings in accordance with Table 601. Mass timber elements shall meet the fire-resistance rating requirements of this section based on either the fire-resistance rating of the noncombustible protection, the mass timber, or a combination of both and shall be determined in accordance with Section 703.2 or 703.3. The minimum dimensions and permitted materials for building elements shall comply with the provisions of this section including Section 2304.11. Mass timber elements of Types IV-A, IV-B and IV-C construction shall be protected with noncombustible protection applied directly to the mass timber in accordance with Sections 602.4.1 through 602.4.3. The time assigned to the noncombustible protection shall be determined in accordance with Section 703.8 and comply with 722.7.

Cross-laminated timber shall be labeled as conforming to ANSI/APA PRG 320 as referenced in Section 2303.1.4.

Exterior load-bearing walls and nonload-bearing walls shall be mass timber construction, or shall be of noncombustible construction.

EXCEPTION: Exterior load-bearing walls and nonload-bearing walls of Type IV-HT Construction in accordance with Section 602.4.4.

The interior building elements, including nonload-bearing walls and partitions, shall be of mass timber construction or of noncombustible construction.

EXCEPTION: Interior building elements and nonload-bearing walls and partitions of Type IV-HT Construction in accordance with Section 602.4.4.

Combustible concealed spaces are not permitted except as otherwise indicated in Sections 602.4.1 through 602.4.4. Combustible stud spaces within light frame walls of Type IV-HT construction shall not be considered concealed spaces, but shall comply with Section 718.

In buildings of Type IV-A, IV-B, and IV-C, construction with an occupied floor located more than 75 feet above the lowest level of fire department access, up to and including 12 stories or 180 feet above grade plane, mass timber interior exit and elevator hoistway enclosures shall be protected in accordance with Section 602.4.1.2. In buildings greater than 12 stories or 180 feet above grade plane, interior exit and elevator hoistway enclosures shall be constructed of noncombustible materials.

**602.4.1 Type IV-A.** Building elements in Type IV-A construction shall be protected in accordance with Sections 602.4.1.1 through 602.4.1.6. The required fire-resistance rating of noncombustible elements and protected mass timber elements shall be determined in accordance with Section 703.2 or Section 703.3.

**602.4.1.1 Exterior protection.** The outside face of exterior walls of mass timber construction shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1. All components of the exterior wall covering, shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than  $150 \text{ kW/m}^2$ , a total heat release of less than  $20 \text{ MJ/m}^2$  and an effective heat of combustion of less than  $18 \text{ MJ/kg}$  as determined in accordance with ASTM E1354 and having a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E84 or UL 723. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of  $50 \text{ kW/m}^2$ .

**602.4.1.2 Interior protection.** Interior faces of all mass timber elements, including the inside faces of exterior mass timber walls and mass timber roofs, shall be protected with materials complying with Section 703.5.

**602.4.1.2.1 Protection time.** Noncombustible protection shall contribute a time equal to or greater than times assigned in Table 722.7.1(1), but not less than 80 minutes. The use of materials and their respective protection contributions listed in Table 722.7.1(2), shall be permitted to be used for compliance with Section 722.7.1.

**602.4.1.3 Floors.** The floor assembly shall contain a noncombustible material not less than 1 inch in thickness above the mass timber. Floor finishes in accordance with Section 804 shall be permitted on top of the noncombustible material. The underside of floor assemblies shall be protected in accordance with 602.4.1.2.

**602.4.1.4 Roofs.** The interior surfaces of roof assemblies shall be protected in accordance with Section 602.4.1.2. Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.

**602.4.1.5 Concealed spaces.** Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *International Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected in accordance with Section 602.4.1.2.

**602.4.1.6 Shafts.** Shafts shall be permitted in accordance with Sections 713 and 718. Both the shaft side and room side of mass timber elements shall be protected in accordance with Section 602.4.1.2.

**602.4.2 Type IV-B.** Building elements in Type IV-B construction shall be protected in accordance with Sections 602.4.2.1 through 602.4.2.6. The required fire-resistance rating of noncombustible elements or mass timber elements shall be determined in accordance with Section 703.2 or 703.3.

**602.4.2.1 Exterior protection.** The outside face of exterior walls of mass timber construction shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1. All components of the exterior wall covering shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than 150 kW/m<sup>2</sup>, a total heat release of less than 20 MJ/m<sup>2</sup> and an effective heat of combustion of less than 18 MJ/kg as determined in accordance with ASTM E1354, and having a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E84 or UL 723. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of 50 kW/m<sup>2</sup>.

**602.4.2.2 Interior protection.** Interior faces of all mass timber elements, including the inside face of exterior mass timber walls and mass timber roofs, shall be protected, as required by this section, with materials complying with Section 703.5.

**602.4.2.2.1 Protection time.** Noncombustible protection shall contribute a time equal to or greater than times assigned in Table 722.7.1(1), but not less than 80 minutes. The use of materials and their respective protection contributions listed in Table 722.7.1(2), shall be permitted to be used for compliance with Section 722.7.1.

**602.4.2.2.2 Protected area.** All interior faces of all mass timber elements shall be protected in accordance with Section 602.4.2.2.1, including the inside face of exterior mass timber walls and mass timber roofs.

EXCEPTION: Unprotected portions of mass timber ceilings and walls complying with Section 602.4.2.2.4 and the following:  
1. Unprotected portions of mass timber ceilings, including attached beams, shall be permitted and shall be limited to an area equal to 20% of the floor area in any dwelling unit or fire area; or  
2. Unprotected portions of mass timber walls, including attached columns, shall be permitted and shall be limited to an area equal to 40% of the floor area in any dwelling unit or fire area; or  
3. Unprotected portions of both walls and ceilings of mass timber, including attached columns and beams, in any dwelling unit or fire area shall be permitted in accordance with Section 602.4.2.2.3.  
4. Mass timber columns and beams which are not an integral portion of walls or ceilings, respectively, shall be permitted to be unprotected without restriction of either aggregate area or separation from one another.

**602.4.2.2.3 Mixed unprotected areas.** In each dwelling unit or fire area, where both portions of ceilings and portions of walls are unprotected, the total allowable unprotected area shall be determined in accordance with Equation 6-1.

(Equation 6-1)

$$(U_{tc}/U_{ac}) + (U_{tw}/U_{aw}) \leq 1$$

where:

- U<sub>tc</sub> = Total unprotected mass timber ceiling areas;
- U<sub>ac</sub> = Allowable unprotected mass timber ceiling area conforming to Section 602.4.2.2.2, Exception 1;
- U<sub>tw</sub> = Total unprotected mass timber wall areas;
- U<sub>aw</sub> = Allowable unprotected mass timber wall area conforming to Section 602.4.2.2.2, Exception 2.

**602.4.2.2.4 Separation distance between unprotected mass timber elements.** In each dwelling unit or fire area, unprotected portions of

mass timber walls and ceilings shall be not less than 15 feet from unprotected portions of other walls and ceilings, measured horizontally along the ceiling and from other unprotected portions of walls measured horizontally along the floor.

**602.4.2.3 Floors.** The floor assembly shall contain a noncombustible material not less than 1 inch in thickness above the mass timber. Floor finishes in accordance with Section 804 shall be permitted on top of the noncombustible material. The underside of floor assemblies shall be protected in accordance with Section 602.4.1.2.

**602.4.2.4 Roofs.** The interior surfaces of roof assemblies shall be protected in accordance with Section 602.4.2.2 except, in nonoccupiable spaces, they shall be treated as a concealed space with no portion left unprotected. Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.

**602.4.2.5 Concealed spaces.** Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *International Mechanical Code*, and shall comply with all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected in accordance with Section 602.4.1.2.

**602.4.2.6 Shafts.** Shafts shall be permitted in accordance with Sections 713 and 718. Both the shaft side and room side of mass timber elements shall be protected in accordance with Section 602.4.1.2.

**602.4.3 Type IV-C.** Building elements in Type IV-C construction shall be protected in accordance with Sections 602.4.3.1 through 602.4.3.6. The required fire-resistance rating of building elements shall be determined in accordance with Sections 703.2 or 703.3.

**602.4.3.1 Exterior protection.** The exterior side of walls of combustible construction shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1. All components of the exterior wall covering, shall be of noncombustible material except water resistive barriers having a peak heat release rate of less than  $150 \text{ kW/m}^2$ , a total heat release of less than  $20 \text{ MJ/m}^2$  and an effective heat of combustion of less than  $18 \text{ MJ/kg}$  as determined in accordance with ASTM E1354 and having a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E84 or UL 723. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of  $50 \text{ kW/m}^2$ .

**602.4.3.2 Interior protection.** Mass timber elements are permitted to be unprotected.

**602.4.3.3 Floors.** Floor finishes in accordance with Section 804 shall be permitted on top of the floor construction.

**602.4.3.4 Roofs.** Roof coverings in accordance with Chapter 15 shall be permitted on the outside surface of the roof assembly.

**602.4.3.5 Concealed spaces.** Concealed spaces shall not contain combustibles other than electrical, mechanical, fire protection, or plumbing materials and equipment permitted in plenums in accordance with Section 602 of the *International Mechanical Code*, and shall comply with

all applicable provisions of Section 718. Combustible construction forming concealed spaces shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1.

**602.4.3.6 Shafts.** Shafts shall be permitted in accordance with Sections 713 and 718. Shafts and elevator hoistway and interior exit stairway enclosures shall be protected with noncombustible protection with a minimum assigned time of 40 minutes as determined in Section 722.7.1, on both the inside of the shaft and the outside of the shaft.

**602.4.4 Type IV-HT.** Type IV-HT construction (Heavy Timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid wood, laminated heavy timber or structural composite lumber (SCL), without concealed spaces. The minimum dimensions for permitted materials including solid timber, glued-laminated timber, structural composite lumber (SCL) and cross-laminated timber (CLT) and details of Type IV construction shall comply with the provisions of this section and Section 2304.11. Exterior walls complying with Section 602.4.4.1 or 602.4.4.2 shall be permitted. Interior walls and partitions not less than 1 hour fire-resistance rating or heavy timber conforming with Section 2304.11.2.2 shall be permitted.

**602.4.4.1 Fire-retardant-treated wood in exterior walls.** Fire-retardant-treated wood framing and sheathing complying with Section 2303.2 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less.

**602.4.4.2 Cross-laminated timber in exterior walls.** Cross-laminated timber complying with Section 2303.1.4 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less, provided the exterior surface of the cross-laminated timber is protected by one of the following:

1. Fire-retardant-treated wood sheathing complying with Section 2303.2 and not less than 15/32 inch (12 mm) thick;
2. Gypsum board not less than 1/2 inch (12.7 mm) thick; or
3. A noncombustible material.

[Statutory Authority: RCW 19.27.031 and RCW 19.27.074. WSR 20-01-090, § 51-50-0602, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-0602, filed 12/26/18, effective 7/1/19.]

**(Effective until July 1, 2020)**

**WAC 51-50-0603 Section 603—Combustible material in Types I and II construction.**

**603.1 Allowable materials.** Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
  - 1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
  - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
  - 1.3. Roof construction, including girders, trusses, framing and decking.

EXCEPTION: In buildings of Type I-A construction exceeding two stories above grade plane, fire-retardant-treated wood is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).

2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

EXCEPTIONS: 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.  
2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.

3. Foam plastics in accordance with Chapter 26.

4. Roof coverings that have an A, B or C classification.

5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.

6. Millwork such as doors, door frames, window sashes and frames.

7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.

8. *Trim* installed in accordance with Section 806.

9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.

10. Finish flooring installed in accordance with Section 805.

11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.

12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.

13. Combustible *exterior wall coverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.

14. Blocking such as for handrails, millwork, cabinets and window and door frames.

15. Light-transmitting plastics as permitted by Chapter 26.

16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.

17. Exterior plastic veneer installed in accordance with Section 2605.2.

18. Nailing or furring strips as permitted by Section 803.13.

19. Heavy timber as permitted by Note<sup>c</sup> to Table 601 and Sections 602.4.4.9 and 1406.3.

20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.

21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.

22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.

23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.

24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.

25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.

26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m<sup>2</sup>), in size, lined on both sides with noncombusti-

ble materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0603, filed 12/26/18, effective 7/1/19.]

**(Effective July 1, 2020)**

**WAC 51-50-0603 Section 603—Combustible material in Types I and II construction.**

**603.1 Allowable materials.** Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:

1.1. Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.

1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.

1.3. Roof construction, including girders, trusses, framing and decking.

EXCEPTION: In buildings of Type I-A construction exceeding two *stories above grade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).

1.4. Balconies, porches, decks and exterior stairways not used as required exits on buildings three stories or less above grade plane. Approved connector shall be in accordance with Section 2304.10.5.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0603, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-0603, filed 12/26/18, effective 7/1/19.]

**WAC 51-50-0703 Section 703—Fire-resistance ratings and fire tests.**

**703.8 Determination of noncombustible protection time contribution.**

The time, in minutes, contributed to the fire-resistance rating by the noncombustible protection of mass timber building elements, components, or assemblies, shall be established through a comparison of assemblies tested using procedures set forth in ASTM E119 or UL 263. The test assemblies shall be identical in construction, loading, and materials, other than the noncombustible protection. The two test assemblies shall be tested to the same criteria of structural failure.

1. Test Assembly 1 shall be without protection.

2. Test Assembly 2 shall include the representative noncombustible protection. The protection shall be fully defined in terms of configuration details, attachment details, joint sealing details, accessories and all other relevant details.

The noncombustible protection time contribution shall be determined by subtracting the fire resistance time, in minutes, of Test Assembly 1 from the fire resistance time, in minutes, of Test Assembly 2.

**703.9 Sealing of adjacent mass timber elements.** In buildings of Type IV-A, IV-B, and IV-C construction, sealant or adhesive shall be provided to resist the passage of air in the following locations:

1. At abutting edges and intersections of mass timber building elements required to be fire-resistance-rated.

2. At abutting intersections of mass timber building elements and building elements of other materials where both are required to be fire-resistance-rated.

Sealants shall meet the requirements of ASTM C920. Adhesives shall meet the requirements of ASTM D3498.

EXCEPTION: Sealants or adhesives need not be provided where a fire-resistance-rated assembly does not include them as a required component.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0703, filed 12/26/18, effective 7/1/19.]

**(Effective July 1, 2020)**

**WAC 51-50-0704 Section 704—Fire-resistance rating of structural members.**

**704.6.1 Secondary (nonstructural) attachments to structural members.**

Where primary and secondary structural steel members require fire protection, secondary (nonstructural) tubular steel attachments to those structural members shall be protected with the same fire resistive rating as required for the structural member. The protection shall extend from the structural member a distance of not less than 12 inches. An open tubular attachment shall be filled with an equivalent fire protection method for a distance of 12-inch length from the structural member, or the entire length of the open tube, whichever is less.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0704, filed 12/12/19, effective 7/1/20.]

**(Effective July 1, 2020)**

**WAC 51-50-0705 Section 705—Exterior walls and projections.**

**705.1 General.** Exterior walls and projections shall comply with this section.

**705.2 Projections.** Cornices, roof and eave overhangs, projecting floors above, exterior balconies and similar projections extending beyond the exterior wall shall conform to the requirements of this section and Section 1405. Exterior egress balconies and exterior exit stairways and ramps shall comply with Sections 1021 and 1027, respectively. Projections shall not extend any closer to the line used to determine the fire separation distance than shown in Table 705.2.

EXCEPTIONS: 1. Buildings on the same lot and considered as portions of one building in accordance with Section 705.3 are not required to comply with this section for projections between the buildings.  
2. Projecting floors complying with Section 705.2.4 are not required to comply with the projection limitations of Table 705.2.

**705.2.5 Projecting floors.** Where the fire separation distance on a lower floor is greater than the fire separation distance on the floor immediately above, the projecting floor shall have not less than the *fire-resistance rating* as the exterior wall above based on Table 602. The *fire-resistant rating* of the *horizontal* portion shall be continuous to the lower *vertical* wall.



[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0705, filed 12/12/19, effective 7/1/20.]

**(Effective until July 1, 2020)**

**WAC 51-50-0706 Section 706—Fire walls.**

**706.1 General.** Fire walls shall be constructed in accordance with Sections 706.2 through 706.11. The extent and location of such fire walls shall provide a complete separation. Where a fire wall also separates occupancies that are required to be separated by a fire barrier wall, the most restrictive requirements of each separation shall apply.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0706, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-0706 Section 706—Fire walls.**

**706.6.1 Stepped buildings.** Where a fire wall also serves as an exterior wall for a building and separates buildings having different roof levels, such wall shall terminate at a point not less than 30 inches (762 mm) above the lower roof level. Exterior walls above the fire wall extending more than 30 inches above the lower roof shall be of not less than 1-hour *fire-resistance-rated* construction from both sides with openings protected by fire assemblies having a fire protection rating of not less than 3/4 hour. Portions of the exterior walls exceeding 15 feet above the lower roof shall be permitted to be of *nonfire-resistance-rated* construction unless otherwise required by other provisions of this code.

EXEMPTION: A fire wall serving as part of an exterior wall that separates buildings having different roof levels shall be permitted to terminate at the underside of the roof sheathing, deck or slab of the lower roof, provided items 1, 2, and 3 below are met. The exterior wall above the fire wall is not required to be of *fire-resistance-rated* construction, unless required by other provisions of this code.

1. The lower roof assembly within 10 feet (3048 mm) of the *fire wall* has not less than a 1-hour *fire-resistance rating*.
2. The entire length and span of supporting elements for the rated roof assembly has a *fire-resistance rating* of not less than 1 hour.
3. Openings in the lower roof are not located within 10 feet (3048 mm) of the *fire wall*.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0706, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0706, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-07070 Section 707—Fire barriers.**

**707.4 Exterior walls.** Where exterior walls serve as a part of a required *fire-resistance-rated* shaft or separation or enclosure for a stairway, ramp or exit passageway, such walls shall comply with the requirements of Section 705 for exterior walls and the *fire-resistance-rated* enclosure or separation requirements shall not apply.

EXCEPTION: Exterior walls required to be *fire-resistance-rated* in accordance with Section 1021 for exterior egress balconies, Section 1023.7 for interior exit stairways and ramps, Section 1024.8 for exit passageways and Section 1027.6 for exterior exit stairways and ramp.

**707.5 Continuity.** Fire barriers shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor

or roof sheathing, slab or deck above and shall be securely attached thereto. Such fire barriers shall be continuous through concealed space, such as the space above a suspended ceiling. Joints and voids at intersections shall comply with Sections 707.8 and 707.9.

- EXCEPTIONS:
1. Shaft enclosures shall be permitted to terminate at a top enclosure complying with Section 713.12.
  2. Interior exit stairway and ramp enclosures required by Section 1023 and exit access stairway and ramp enclosures required by Section 1019 shall be permitted to terminate at a top enclosure complying with Section 713.12.
  3. An exit passageway enclosure required by Section 1024.3 that does not extend to the underside of the roof sheathing, slab or deck above shall be enclosed at the top with construction of the same *fire-resistance rating* as required for the exit passageway.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-07070, filed 12/12/19, effective 7/1/20.]

**WAC 51-50-0708 Section 708—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0708, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, amended and re-codified as § 51-50-0708, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0707, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0707, filed 12/17/03, effective 7/1/04.]

**WAC 51-50-0710 Section 710—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0710, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0710, filed 1/20/10, effective 7/1/10.]

**(Effective July 1, 2020)**

**WAC 51-50-0713 Section 713—Shaft enclosures.**

**713.13.4 Chute discharge room.** Waste or linen chutes shall discharge into an enclosed room separated by fire barriers with a *fire-resistance rating* not less than the required *fire rating* of the shaft enclosure and constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both. Openings into the discharge room from the remainder of the building shall be protected by opening protectives having a *fire-protection rating* equal to the protection required for the shaft enclosure. Through penetrations of piping and conduit not necessary for the purpose of the chute discharge room are permitted as long as they are protected in accordance with Section 714 and do not impact the operation of the trash collection system. Doors shall be self- or automatic-closing upon the detection of smoke in accordance with Section 716.2.6.6. Waste chutes shall not terminate in an incinerator room. Waste and linen rooms that are not provided with chutes need only comply with Table 509.

**713.13.7 Chute venting and roof termination.** The full diameter of waste and linen chutes shall extend a minimum of 3 feet (0.92 m) above the building roof and be gravity vented in accordance with *International Mechanical Code* Section 515.

- EXCEPTIONS:
1. Where mechanically ventilated in accordance with *International Mechanical Code* Section 515 the full diameter of the chute shall extend through the roof a minimum of 3 feet (0.92 m) and terminate at a blast cap. The mechanical exhaust connection shall tap into the side of the blast cap extension above the roof.
  2. Where the trash chute does not extend to the upper floor of the building below the roof the trash chute shall be permitted to gravity vent to a sidewall louver termination. The horizontal extension of the trash chute shall be the full diameter of the chute and shall be enclosed in rated construction equal to the rating of the shaft enclosure. Where the chute is mechanically ventilated in accordance with *International Mechanical Code* Section 515 the blast cap shall terminate behind the louver and the exhaust fan and duct connection will be enclosed in the rated shaft.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0713, filed 12/12/19, effective 7/1/20.]

#### **WAC 51-50-0716 Section 716—Opening protectives.**

**716.5.9 Door closing.** *Fire doors* shall be latching and self- or auto-closing in accordance with this section.

- EXCEPTIONS:
1. *Fire doors* located in common walls separating *sleeping units* in Group R-I shall be permitted without automatic- or *self-closing* devices.
  2. The elevator car doors and the associated hoistway enclosure doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I emergency recall operation.
  3. In Group I-1, Condition 2 Assisted living facilities licensed under chapter 388-78A WAC and residential treatment facilities licensed under chapter 246-337 WAC, fire doors in dwelling and sleeping units opening to the corridor shall be permitted without automatic or self-closing devices when all of the following conditions exist:
    - 3.1 Each floor is constantly attended by staff on a 24-hour basis and stationed on that floor;
    - 3.2 The facility is provided with an NFPA 13 sprinkler system throughout;
    - 3.3 Doors shall be equipped with positive latching;
    - 3.4 Dwelling and sleeping units are not equipped with cooking appliances;
    - 3.5 Dwelling and sleeping units shall be equipped with a smoke detection system interconnected with the smoke detection system required by Section 907.2.6.1.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0716, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

#### **WAC 51-50-0717 Section 717—Ducts and air transfer openings.**

**717.5.2 Fire barriers.** Ducts and air transfer openings of fire barriers shall be protected with listed fire dampers installed in accordance with their listing. Ducts and air transfer openings shall not penetrate enclosures for interior exit stairways and ramps and exit passageways, except as permitted by Sections 1023.5 and 1024.6, respectively.

- EXCEPTION:
- Fire dampers are not required at penetrations of fire barriers where any of the following apply:
1. Penetrations are tested in accordance with ASTM E119 or UL 263 as part of the *fire-resistance-rated* assembly.
  2. Ducts are used as part of an approved smoke control system in accordance with Section 909 and where the use of a fire damper would interfere with the operation of a smoke control system.
  3. Such walls shall have a required *fire-resistance rating* of 1 hour or less, penetrated by ducted HVAC systems, in areas of other than Group H and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than No. 26 gage thickness and shall be continuous without openings from the air-handling appliance or equipment to the air outlet and inlet terminals, located on the opposite side of the wall assembly.

**717.5.4 Fire partitions.** Ducts and air transfer openings that penetrate fire partitions shall be protected with listed fire dampers installed in accordance with their listing.

- EXCEPTION:
- In occupancies other than Group H, fire dampers are not required where any of the following apply:
1. Corridor walls in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and the duct is protected as a through penetration in accordance with Section 714.
  2. Tenant partitions in covered and open mall buildings where the walls are not required by provisions elsewhere in the code to extend to the underside of the floor or roof sheathing, slab or deck above.
  3. The duct system is constructed of approved materials in accordance with the *International Mechanical Code* and the duct penetrating the wall complies with all of the following requirements:
    - 3.1. The duct shall not exceed 100 square inches (0.06 m<sup>2</sup>).
    - 3.2. The duct shall be constructed of steel not less than 0.0217-inch (0.55 mm) in thickness.
    - 3.3. The duct shall not have openings that communicate the corridor with adjacent spaces or rooms.
    - 3.4. The duct shall be installed above a ceiling.

3.5. The duct shall not terminate at a wall register in the *fire-resistance-rated* wall.

3.6. A minimum 12-inch-long (305 mm) by 0.060-inch-thick (1.52 mm) steel sleeve shall be centered in each duct opening. The sleeve shall be secured to both sides of the wall and all four sides of the sleeve with minimum 1.5 inch by 1.5 inch by 0.060-inch (38 mm by 38 mm by 1.52 mm) steel retaining angles. The retaining angles shall be secured to the sleeve and the wall with No. 10 (M5) screws. The annular space between the steel sleeve and the wall opening shall be filled with mineral wool batting on all sides.

4. Such walls shall have a required *fire-resistance rating* of 1 hour or less, penetrated by ducted HVAC systems in areas of other than Group H and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than No. 26 gage thickness and shall be continuous without openings from the air-handling appliance or equipment to the air outlet and inlet terminals located on the opposite side of the wall assembly.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0717, filed 12/12/19, effective 7/1/20.]

#### **WAC 51-50-0718 Section 718—Concealed spaces.**

**718.2.1 Fireblocking materials.** *Fireblocking* shall consist of the following materials:

1. Two inch (51 mm) nominal lumber.
2. Two thicknesses of 1 inch (25 mm) nominal lumber with broken lap joints.
3. One thickness of 0.719 inch (18.3 mm) wood structural panels with joints backed by 0.719 inch (18.3 mm) wood structural panels.
4. One thickness of 0.75 inch (19.1 mm) particleboard with joints backed by 0.75 inch (19 mm) particleboard.
5. One half inch (12.7 mm) gypsum board.
6. One fourth inch (6.4 mm) cement-based millboard.
7. Batts or blankets of mineral wool, mineral fiber or other approved materials installed in such a manner as to be securely retained in place.
8. Cellulose insulation installed as tested for the specific application.
9. Mass timber complying with Section 2304.11.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0718, filed 12/26/18, effective 7/1/19.]

#### **WAC 51-50-0722 Section 722—Calculated fire resistance.**

**722.7 Fire-resistance rating of mass timber.** The required fire resistance of mass timber elements in Section 602.4 shall be determined in accordance with Section 703.2 or 703.3. The fire-resistance rating of building elements shall be as required in Tables 601 and 602 and as specified elsewhere in this code. The fire-resistance rating of the mass timber elements shall consist of the fire resistance of the unprotected element added to the protection time of the noncombustible protection.

**722.7.1 Minimum required protection.** When required by Sections 602.4.1 through 602.4.3, noncombustible protection shall be provided for mass timber building elements in accordance with Table 722.7.1(1). The rating, in minutes, contributed by the noncombustible protection of mass timber building elements, components, or assemblies, shall be established in accordance with Section 703.8. The protection contributions indicated in Table 722.7.1(2) shall be deemed to comply with this requirement when installed and fastened in accordance with Section 722.7.2.

#### **Table 722.7.1(1)**

**Protection Required from Noncombustible Covering Material**

Required Fire-Resistance Rating of Building Element per Tables 601 and 602 (hours)	Minimum Protection Required from Noncombustible Protection (minutes)
1	40
2	80
3 or more	120

**Table 722.7.1(2)  
Protection Provided by Noncombustible Covering Material**

Noncombustible Protection	Protection Contribution (minutes)
1/2 inch Type X Gypsum board	25
5/8 inch Type X Gypsum board	40

**722.7.2 Installation of gypsum board noncombustible protection.** Gypsum board complying with Table 722.7.1(2) shall be installed in accordance with this section.

**722.7.2.1 Interior surfaces.** Layers of Type X gypsum board serving as noncombustible protection for interior surfaces of wall and ceiling assemblies determined in accordance with Table 722.7.1(1) shall be installed in accordance with the following:

1. Each layer shall be attached with Type S drywall screws of sufficient length to penetrate the mass timber at least 1 inch when driven flush with the paper surface of the gypsum board.

EXCEPTION: The third layer, where determined necessary by Section 722.7, shall be permitted to be attached with 1 inch #6 Type S drywall screws to furring channels in accordance with ASTM C645.

2. Screws for attaching the base layer shall be 12 inches on center in both directions.

3. Screws for each layer after the base layer shall be 12 inches on center in both directions and offset from the screws of the previous layers by 4 inches in both directions.

4. All panel edges of any layer shall be offset 18 inches from those of the previous layer.

5. All panel edges shall be attached with screws sized and offset as in items 1 through 4 above and placed at least 1 inch but not more than 2 inches from the panel edge.

6. All panels installed at wall-to-ceiling intersections shall be installed such that the ceiling panel(s) is installed first and the wall panel(s) is installed after the ceiling panel has been installed and is fitted tight to the ceiling panel. Where multiple layers are required, each layer shall repeat this process.

7. All panels installed at a wall-to-wall intersection shall be installed such that the panel(s) covering an exterior wall or a wall with a greater fire-resistance rating shall be installed first and the panel(s) covering the other wall shall be fitted tight to the panel covering the first wall. Where multiple layers are required, each layer shall repeat this process.

8. Panel edges of the face layer shall be taped and finished with joint compound. Fastener heads shall be covered with joint compound.

9. Panel edges protecting mass timber elements adjacent to unprotected mass timber elements in accordance with Section 602.4.2.2 shall be covered with 1 1/4 inch metal corner bead and finished with joint compound.

**722.7.2.2 Exterior surfaces.** Layers of Type X gypsum board serving as noncombustible protection for the outside of the exterior heavy timber walls determined in accordance with Table 722.7.1(a) shall be fastened 12 inches on center each way and 6 inches on center at all joints or ends. All panel edges shall be attached with fasteners located at least 1 inch but not more than 2 inches from the panel edge. Fasteners shall comply with one of the following:

1. Galvanized nails of minimum 12 gage with a 7/16 inch head of sufficient length to penetrate the mass timber a minimum of 1 inch.

2. Screws that comply with ASTM C1002 (Type S, Type W, or Type G) of sufficient length to penetrate the mass timber a minimum of 1 inch.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0722, filed 12/26/18, effective 7/1/19.]

**WAC 51-50-0803 Section 803—Wall and ceiling finishes.**

**803.3 Heavy timber exemption.** Exposed portions of building elements complying with the requirements for buildings of Type IV construction in Section 602.4 shall not be subject to interior finish requirements except in interior exit stairways, interior exit ramps, and exit passageways.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-0803, filed 12/26/18, effective 7/1/19.]

**WAC 51-50-0902 Section 902—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0902, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0902, filed 12/17/03, effective 7/1/04.]

**(Effective until July 1, 2020)**

**WAC 51-50-0903 Section 903—Automatic sprinkler systems.**

**903.2.1.6 Assembly occupancies on roofs.** Where an occupied roof has an assembly occupancy with an occupant load exceeding 100 for Group A-2, and 300 for other Group A occupancies, the building shall be equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.

EXCEPTION: Open parking garages of Type I or Type II construction.

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

**903.2.3 Group E.** An automatic sprinkler system shall be provided for fire areas containing Group E occupancies where the fire area has an occupant load of 51 or more, calculated in accordance with Table 1004.1.2.

- EXCEPTIONS:
1. Portable school classrooms with an occupant load of 50 or less calculated in accordance with Table 1004.1.2, provided that the aggregate area of any cluster of portable school classrooms does not exceed 6,000 square feet (557 m<sup>2</sup>); and clusters of portable school classrooms shall be separated as required by the building code; or
  2. Portable school classrooms with an occupant load from 51 through 98, calculated in accordance with Table 1004.1.2, and provided with two means of direct independent exterior egress from each classroom in accordance with Chapter 10, and one exit from each classroom shall be accessible, provided that the aggregate area of any cluster of portable classrooms does not exceed 6,000 square feet (557 m<sup>2</sup>); and clusters of portable school classrooms shall be separated as required by the building code; or
  3. Fire areas containing day care and preschool facilities with a total occupant load of 100 or less located at the level of exit discharge where every room in which care is provided has not fewer than one exit discharge door.

**903.2.6 Group I.** An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

- EXCEPTIONS:
1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 Condition 1 facilities.
  2. Where new construction or additions house less than sixteen persons receiving care, an automatic sprinkler system installed in accordance with Section 903.2.8.3 shall be permitted for Group I-1, Condition 2, assisted living facilities licensed under chapter 388-78A WAC and residential treatment facilities licensed under chapter 246-337 WAC.

**903.2.6.1 Group I-4.** An automatic sprinkler system shall be provided in fire areas containing Group I-4 occupancies where the fire area has an occupant load of 51 or more, calculated in accordance with Table 1004.1.2.

- EXCEPTIONS:
1. An automatic sprinkler system is not required for Group I-4 day care facilities with a total occupant load of 100 or less, and located at the level of exit discharge and where every room where care is provided has not fewer than one exterior exit door.
  2. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of exit discharge and all floors below the level of exit discharge other than areas classified as an open parking garage.

**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 (1115 m<sup>2</sup>).
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 m<sup>2</sup>).
4. Where a Group M occupancy that is used for the display and sale of upholstered furniture or mattresses exceeds 5000 square feet (464 m<sup>2</sup>).

**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 of 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.

**903.2.11.1.3 Basements.** Where any portion of a basement is located more than 75 feet (22,860 mm) from openings required by Section 903.2.11.1, or where new walls, partitions or other similar obstructions are installed that increase the exit access travel distance to more than 75 feet, the basement shall be equipped throughout with an approved automatic sprinkler system.

**903.2.11.7 Relocatable buildings within buildings.** Relocatable buildings or structures located within a building with an approved fire sprinkler system shall be provided with fire sprinkler protection within the occupiable space of the building and the space underneath the relocatable building.

- EXCEPTIONS:
1. Sprinkler protection is not required underneath the building when the space is separated from the adjacent space by construction resisting the passage of smoke and heat and combustible storage will not be located there.
  2. If the building or structure does not have a roof or ceiling obstructing the overhead sprinklers.
  3. Construction trailers and temporary offices used during new building construction prior to occupancy.
  4. Movable shopping mall kiosks with a roof or canopy dimension of less than 4 feet on the smallest side.

**903.3.5.3 Underground portions of fire protection system water supply piping.** The installation or modification of an underground water main, public or private, supplying a water-based fire protection system shall be in accordance with NFPA 24 and chapter 18.160 RCW. Piping and appurtenances downstream of the first control valve on the lateral or service line from the distribution main to one-foot above finished floor shall be approved by the fire code official. Such underground piping shall be installed by a fire sprinkler system contractor licensed in accordance with chapter 18.160 RCW and holding either a Level U or a Level 3 license. For underground piping supplying systems installed in accordance with Section 903.3.1.2, a Level 2, 3, or U licensed contractor is acceptable.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0903, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-089, § 51-50-0903, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0903, filed 2/1/13, effective 7/1/13. Statutory Authority: Chapter 19.27 RCW. WSR 10-24-059, § 51-50-0903, filed 11/29/10, effective 7/1/11. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0903, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-0903, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0903, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-0903, filed 12/5/05, effective 7/1/06. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0903, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-0903 Section 903—Automatic sprinkler systems.**

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

**903.2.3 Group E.** An automatic sprinkler system shall be provided for fire areas containing Group E occupancies where the fire area has an occupant load of 51 or more, calculated in accordance with Table 1004.1.2.

EXCEPTIONS:

1. Portable school classrooms with an occupant load of 50 or less calculated in accordance with Table 1004.1.2, provided that the aggregate area of any cluster of portable school classrooms does not exceed 6,000 square feet (557 m<sup>2</sup>); and clusters of portable school classrooms shall be separated as required by the building code; or
2. Portable school classrooms with an occupant load from 51 through 98, calculated in accordance with Table 1004.1.2, and provided with two means of direct independent exterior egress from each classroom in accordance with Chapter 10, and one exit from each classroom shall be accessible, provided that the aggregate area of any cluster of portable classrooms does not exceed 6,000 square feet (557 m<sup>2</sup>); and clusters of portable school classrooms shall be separated as required by the building code; or
3. Fire areas containing day care and preschool facilities with a total occupant load of 100 or less located at the level of exit discharge where every room in which care is provided has not fewer than one exit discharge door.

**903.2.6 Group I.** An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

EXCEPTIONS:

1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 Condition 1 facilities.
2. Where new construction house sixteen persons receiving care, an automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted for Group I-1, Condition 2, assisted living facilities licensed under chapter 388-78A WAC and residential treatment facilities licensed under chapter 246-337 WAC.
3. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in additions to existing buildings where both of the following situations are true:
  - 3.1. The addition is made to a building previously approved as Group LC or Group R-2 that houses either an assisted living facility licensed under chapter 388-78A WAC or residential treatment facility licensed under chapter 246-337 WAC.



3.2. The addition contains spaces for sixteen or fewer persons receiving care.

**903.2.6.1 Group I-4.** An automatic sprinkler system shall be provided in fire areas containing Group I-4 occupancies where the fire area has an occupant load of 51 or more, calculated in accordance with Table 1004.1.2.

EXCEPTIONS: 1. An automatic sprinkler system is not required for Group I-4 day care facilities with a total occupant load of 100 or less, and located at the level of exit discharge and where every room where care is provided has not fewer than one exterior exit door.  
2. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of exit discharge and all floors below the level of exit discharge other than areas classified as an open parking garage.

**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 (1115 m<sup>2</sup>).
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 m<sup>2</sup>).
4. Where a Group M occupancy that is used for the display and sale of upholstered furniture or mattresses exceeds 5000 square feet (464 m<sup>2</sup>).

**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 of 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.

**903.2.9.3 Group 5-1 upholstered furniture and mattresses.** An automatic sprinkler system shall be provided throughout a Group 5-1 fire area where the area used for storage of upholstered furniture exceeds 2,500 square feet (232 m<sup>2</sup>).

EXCEPTION: Self-service storage facilities no greater than one story above grade plane where all storage spaces can be accessed directly from the exterior.

**903.2.11.7 Relocatable buildings within buildings.** Relocatable buildings or structures located within a building with an approved fire sprinkler system shall be provided with fire sprinkler protection within the occupiable space of the building and the space underneath the relocatable building.

EXCEPTIONS: 1. Sprinkler protection is not required underneath the building when the space is separated from the adjacent space by construction resisting the passage of smoke and heat and combustible storage will not be located there.  
2. If the building or structure does not have a roof or ceiling obstructing the overhead sprinklers.  
3. Construction trailers and temporary offices used during new building construction prior to occupancy.  
4. Movable shopping mall kiosks with a roof or canopy dimension of less than 4 feet on the smallest side.

**903.3.5.3 Underground portions of fire protection system water supply piping.** The installation or modification of an underground water main, public or private, supplying a water-based fire protection system shall be in accordance with NFPA 24 and chapter 18.160 RCW. Piping and appurtenances downstream of the first control valve on the lateral or service line from the distribution main to one-foot above finished floor shall be approved by the fire code official. Such underground piping shall be installed by a fire sprinkler system contractor licensed in accordance with chapter 18.160 RCW and holding either a Level U or a Level 3 license. For underground piping supplying systems

installed in accordance with Section 903.3.1.2, a Level 2, 3, or U licensed contractor is acceptable.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0903, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0903, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-089, § 51-50-0903, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0903, filed 2/1/13, effective 7/1/13. Statutory Authority: Chapter 19.27 RCW. WSR 10-24-059, § 51-50-0903, filed 11/29/10, effective 7/1/11. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0903, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-0903, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0903, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-0903, filed 12/5/05, effective 7/1/06. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0903, filed 12/17/03, effective 7/1/04.]

***(Effective until July 1, 2020)***

**WAC 51-50-0907 Section 907—Fire alarm and detection systems.**

**[F] 907.2.3 Group E.** Group E occupancies shall be provided with a manual fire alarm system that initiates the occupant notification signal utilizing one of the following:

1. An emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6; or

2. A system developed as part of a safe school plan adopted in accordance with RCW 28A.320.125 or developed as part of an emergency response system consistent with the provisions of RCW 28A.320.126. The system must achieve all of the following performance standards:

2.1 The ability to broadcast voice messages or customized announcements;

2.2 Includes a feature for multiple sounds, including sounds to initiate a lock down;

2.3 The ability to deliver messages to the interior of a building, areas outside of a building as designated pursuant to the safe school plan, and to personnel;

2.4 The ability for two-way communications;

2.5 The ability for individual room calling;

2.6 The ability for a manual override;

2.7 Installation in accordance with NFPA 72;

2.8 Provide 15 minutes of battery backup for alarm and 24 hours of battery backup for standby; and

2.9 Includes a program for annual inspection and maintenance in accordance with NFPA 72.

**EXCEPTIONS:**

1. A manual fire alarm system is not required in Group E occupancies with an occupant load of 50 or less.

2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, such as individual portable school classroom buildings; provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.

3. Where an existing approved alarm system is in place, an emergency voice/alarm system is not required in any portion of an existing Group E building undergoing any one of the following repairs, alteration or addition:

- 3.1 Alteration or repair to an existing building including, without limitation, alterations to rooms and systems, and/or corridor configurations, not exceeding 35 percent of the fire area of the building (or the fire area undergoing the alteration or repair if the building is comprised of two or more fire areas); or
- 3.2 An addition to an existing building, not exceeding 35 percent of the fire area of the building (or the fire area to which the addition is made if the building is comprised of two or more fire areas).
4. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
  - 4.1 Interior *corridors* are protected by smoke detectors.
  - 4.2 Auditoriums, cafeterias, gymnasiums and similar areas are protected by *heat detectors* or other *approved* detection devices.

**[F] 907.2.3.1 Sprinkler systems or detection.** When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

**[F] 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.

**[F] 907.2.6.1 Group I-1.** An automatic smoke detection system shall be installed in *corridors*, waiting areas open to *corridors* and *habitable spaces* other than *sleeping units* and kitchens. The system shall be activated in accordance with Section 907.4.

EXCEPTIONS:

1. For Group I-1 Condition 1 occupancies, smoke detection in *habitable spaces* is not required where the facility is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. Smoke detection is not required for exterior balconies.

**[F] 907.2.6.4 Group I-4 occupancies.** A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group I-4 occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

EXCEPTIONS:

1. A manual fire alarm system is not required in Group I-4 occupancies with an occupant load of 50 or less.
2. Emergency voice alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group I-4 occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.

**[F] 907.5.2.1.2 Maximum sound pressure.** The maximum sound pressure level for audible alarm notification appliances shall be 110 dBA at the minimum hearing distance from the audible appliance. For systems operating in public mode, the maximum sound pressure level shall not exceed 30 dBA over the average ambient sound level. Where the average ambient noise is greater than 95 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audible alarm notification appliances shall not be required.

**[F] 907.10 NICET: National Institute for Certification in Engineering Technologies.**

**907.10.1 Scope.** This section shall apply to new and existing fire alarm systems.

**907.10.2 Design review.** All construction documents shall be reviewed by a NICET III in fire alarms or a licensed professional engineer (PE) in Washington prior to being submitted for permitting. The reviewing professional shall submit a stamped, signed, and dated letter; or a verification method approved by the local authority having jurisdiction indicating the system has been reviewed and meets or exceeds the

design requirements of the state of Washington and the local jurisdiction. (Effective July 1, 2018.)

**907.10.3 Testing/maintenance.** All inspection, testing, maintenance and programming not defined as "electrical construction trade" by chapter 19.28 RCW shall be completed by a NICET II in fire alarms. (Effective July 1, 2018.)

[Statutory Authority: RCW 19.27.074 and 19.27.550. WSR 18-01-104, § 51-50-0907, filed 12/19/17, effective 7/1/18. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0907, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074 and 19.27.530. WSR 12-01-099, § 51-50-0907, filed 12/20/11, effective 4/1/12. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0907, filed 1/20/10, effective 7/1/10.]

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

**(Effective July 1, 2020)**

**WAC 51-50-0907 Section 907—Fire alarm and detection systems.**

**[F] 907.2.3 Group E.** Group E occupancies shall be provided with a manual fire alarm system that initiates the occupant notification signal utilizing one of the following:

1. An emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6; or

2. A system developed as part of a safe school plan adopted in accordance with RCW 28A.320.125 or developed as part of an emergency response system consistent with the provisions of RCW 28A.320.126. The system must achieve all of the following performance standards:

2.1 The ability to broadcast voice messages or customized announcements;

2.2 Includes a feature for multiple sounds, including sounds to initiate a lock down;

2.3 The ability to deliver messages to the interior of a building, areas outside of a building as designated pursuant to the safe school plan, and to personnel;

2.4 The ability for two-way communications;

2.5 The ability for individual room calling;

2.6 The ability for a manual override;

2.7 Installation in accordance with NFPA 72;

2.8 Provide 15 minutes of battery backup for alarm and 24 hours of battery backup for standby; and

2.9 Includes a program for annual inspection and maintenance in accordance with NFPA 72.

**EXCEPTIONS:**

1. A manual fire alarm system is not required in Group E occupancies with an occupant load of 50 or less.

2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, such as individual portable school classroom buildings; provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.

3. Where an existing approved alarm system is in place, an emergency voice/alarm system is not required in any portion of an existing Group E building undergoing any one of the following repairs, alteration or addition:

3.1 Alteration or repair to an existing building including, without limitation, alterations to rooms and systems, and/or corridor configurations, not exceeding 35 percent of the fire area of the building (or the fire area undergoing the alteration or repair if the building is comprised of two or more fire areas); or

3.2 An addition to an existing building, not exceeding 35 percent of the fire area of the building (or the fire area to which the addition is made if the building is comprised of two or more fire areas).

4. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:

4.1 Interior *corridors* are protected by smoke detectors.

- 4.2 Auditoriums, cafeterias, gymnasiums and similar areas are protected by *heat detectors* or other *approved* detection devices.
- 4.3 Shops and laboratories involving dust or vapors are protected by heat detectors or other approved detection devices.
- 5. Manual fire alarm boxes shall not be required in Group E occupancies where all of the following apply:
  - 5.1 The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.
  - 5.2 The emergency voice/alarm communication system will activate on sprinkler waterflow.
  - 5.3 Manual activation is provided from a normally occupied location.

**[F] 907.2.3.1 Sprinkler systems or detection.** When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

**[F] 907.2.6.4 Group I-4 occupancies.** A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group I-4 occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

EXCEPTIONS:
 

1. A manual fire alarm system is not required in Group I-4 occupancies with an occupant load of 50 or less.
2. Emergency voice alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group I-4 occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.

**[F] 907.5.2.1.2 Maximum sound pressure.** The maximum sound pressure level for audible alarm notification appliances shall be 110 dBA at the minimum hearing distance from the audible appliance. For systems operating in public mode, the maximum sound pressure level shall not exceed 30 dBA over the average ambient sound level. Where the average ambient noise is greater than 95 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audible alarm notification appliances shall not be required.

**[F] 907.10 NICET: National Institute for Certification in Engineering Technologies.**

**907.10.1 Scope.** This section shall apply to new and existing fire alarm systems.

**907.10.2 Design review.** All construction documents shall be reviewed by a NICET III in fire alarms or a licensed professional engineer (PE) in Washington prior to being submitted for permitting. The reviewing professional shall submit a stamped, signed, and dated letter; or a verification method approved by the local authority having jurisdiction indicating the system has been reviewed and meets or exceeds the design requirements of the state of Washington and the local jurisdiction. (Effective July 1, 2018.)

**907.10.3 Testing/maintenance.** All inspection, testing, maintenance and programing not defined as "electrical construction trade" by chapter 19.28 RCW shall be completed by a NICET II in fire alarms. (Effective July 1, 2018.)

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0907, filed 12/12/19, effective 7/1/20. Statutory Authority: RCW 19.27.074 and 19.27.550. WSR 18-01-104, § 51-50-0907, filed 12/19/17, effective 7/1/18. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0907, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074 and 19.27.530. WSR 12-01-099, § 51-50-0907, filed 12/20/11, effective 4/1/12. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0907, filed 1/20/10, effective 7/1/10.]

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

**WAC 51-50-0908 Section 908—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0908, filed 1/19/16, effective 7/1/16. Statutory Authority: Chapters 19.27A, 19.27, and 34.05 RCW. WSR 13-23-087, § 51-50-0908, filed 11/19/13, effective 4/1/14. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0908, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074 and 19.27.530. WSR 12-01-099, § 51-50-0908, filed 12/20/11, effective 4/1/12.]

**(Effective until July 1, 2020)**

**WAC 51-50-0909 Section 909—Smoke control systems.**

**909.21.12 Hoistway venting.** Hoistway venting 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0909, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0909, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0909, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0909, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-0909, filed 12/5/05, effective 7/1/06. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0909, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-0909 Section 909—Smoke control systems.**

**909.6.3 Pressurized stairways and elevator hoistways.** Where stairways or elevator hoistways are pressurized, such pressurization systems shall comply with the requirements of Section 909.20 of this code for stair pressurization and 909.21 of the *International Building Code and Fire Code* as necessary to determine that the stairway or elevator hoistways meets the pressurization requirements of the code. Stairway and elevator hoistway pressurization systems in high-rise buildings, underground buildings, and in airport traffic control towers shall comply with *International Building Code* and *International Fire Code* Sections 909 as smoke control systems.

Stairway pressurization systems in other than high-rise buildings, underground buildings, or airport traffic control towers are smoke control systems but shall only be required to comply with the following *International Building Code* 909 Sections: 909.1, 909.2, 909.3, 909.6 with the exception of Sections 909.6.1, 909.10 with the exception of Sections 909.10.2, 909.11 with the exception of Sections 909.11.1, 909.12 with the exception of Sections 909.12.3.2, 909.13,

909.14, 909.17, 909.18 with the exception of Sections 909.18.2 and 909.18.9, 909.19, 909.20.5 and 909.20.6. Design drawings shall include a description of system operation, the conditions for system testing and the criteria for system acceptance to achieve the code minimum performance of the smoke control system. Stairway pressurization systems shall be maintained in accordance with Section 909.20 of the *International Fire Code*.

Elevator hoistway pressurization systems in other than high-rise buildings, underground buildings, or airport traffic control towers are smoke control systems but shall only be required to comply with the following *International Building Code* 909 Sections: 909.1, 909.2, 909.3, 909.6 with the exception of Sections 909.6.1, 909.10 with the exception of Sections 909.10.2, 909.11 with the exception of Sections 909.11.1, 909.12 with the exception of Sections 909.12.3.2, 909.13, 909.14, 909.17, 909.18 with the exception of Sections 909.18.2 and 909.18.9, 909.19, and 909.21 with the exception of Sections 909.21.2, 909.21.9, and 909.21.10. Design drawings shall include a description of system operation, the conditions for system testing and the criteria for system acceptance to achieve the code minimum performance of the smoke control system. Elevator hoistway pressurization systems shall be maintained in accordance with Section 909.20 of the *International Fire Code*.

**909.21.12 Hoistway venting.** Hoistway venting 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0909, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-0909, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-0909, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-0909, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-0909, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-0909, filed 12/5/05, effective 7/1/06. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-0909, filed 12/17/03, effective 7/1/04.]

**WAC 51-50-0911 Section 911—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0911, filed 1/19/16, effective 7/1/16; WSR 10-03-097, § 51-50-0911, filed 1/20/10, effective 7/1/10.]

**(Effective July 1, 2020)**

**WAC 51-50-0913 Section 913—Fire pumps.**

**913.2.1 Protection of fire pump rooms and access.** Fire pumps shall be located in rooms that are separated from all other areas of the build-

ing by 2-hour fire barriers constructed in accordance with Section 707 or 2-hour horizontal assemblies constructed in accordance with Section 711, or both. Fire pump rooms not directly accessible from the outside shall be accessible through an enclosed passageway from an interior exit stairway or exterior exit. The enclosed passageway shall have a *fire-resistance rating* not less than the *fire-resistance rating* of the fire pump room (see NFPA 20 Section 4.12.2.1.2).

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-0913, filed 12/12/19, effective 7/1/20.]

## **WAC 51-50-0915 Section 915—Carbon monoxide detection.**

**915.1 General.** Carbon monoxide detection shall be installed in new buildings in accordance with Sections 915.1.1 through 915.6. Carbon monoxide detection shall be installed in existing buildings in accordance with Chapter 11 of the *International Fire Code*.

**915.1.1 Where required.** Carbon monoxide detection shall be provided in Group I and R occupancies and in classrooms in Group E occupancies in the locations specified in Section 915.2 where any of the conditions in Sections 915.1.2 through 915.1.6 exist.

EXCEPTIONS: 1. R-2 occupancies, with the exception of R-2 college dormitories, are required to install carbon monoxide detectors without exception.  
2. Sleeping units or dwelling units in I and R-1 occupancies and R-2 college dormitories, hotel, DOC prisons and work releases and DSHS licensed boarding home and residential treatment facility occupancies which do not themselves contain a fuel-burning appliance, a fuel-burning fireplace, or have an attached garage, need not be provided with carbon monoxide alarms provided that they comply with the exceptions of 915.1.4.

**915.1.2 Fuel-burning appliances and fuel-burning fireplaces.** Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms that contain a fuel-burning appliance or a fuel-burning fireplace.

**915.1.3 Forced-air furnaces.** Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms served by a fuel-burning, forced-air furnace.

EXCEPTION: Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where carbon monoxide detection is provided in the first room or area served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an approved location.

**915.1.4 Fuel-burning appliances outside of dwelling units, sleeping units and classrooms.** Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms located in buildings that contain fuel-burning appliances or fuel-burning fireplaces.

EXCEPTIONS: 1. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where there are no communicating openings between the fuel-burning appliance or fuel-burning fireplace and the dwelling unit, sleeping unit or classroom.  
2. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms where carbon monoxide detection is provided in one of the following locations:  
2.1. In an approved location between the fuel-burning appliance or fuel-burning fireplace and the dwelling unit, sleeping unit or classroom.  
2.2. On the ceiling of the room containing the fuel-burning appliance or fuel-burning fireplace.

**915.1.5 Private garages.** Carbon monoxide detection shall be provided in dwelling units, sleeping units and classrooms in buildings with attached private garages.

EXCEPTIONS: 1. Carbon monoxide detection shall not be required where there are no communicating openings between the private garage and the dwelling unit, sleeping unit or classroom.  
2. Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms located more than one story above or below a private garage.  
3. Carbon monoxide detection shall not be required where the private garage connects to the building through an open-ended corridor.  
4. Where carbon monoxide detection is provided in an approved location between openings to a private garage and dwelling units, sleeping units or classrooms, carbon monoxide detection shall not be required in the dwelling units, sleeping units or classrooms.

**915.1.6 Exempt garages.** For determining compliance with Section 915.1.5, an open parking garage complying with Section 406.5 of the *International Building Code* or an enclosed parking garage complying



with Section 406.6 of the *International Building Code* shall not be considered a private garage.

**915.2 Locations.** Where required by Section 915.1.1, carbon monoxide detection shall be installed in the locations specified in Sections 915.2.1 through 915.2.3.

**915.2.1 Dwelling units.** Carbon monoxide detection shall be installed in dwelling units outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each level of the dwelling. Where a fuel-burning appliance or fuel-burning fireplace is located within a bedroom or its attached bathroom, carbon monoxide detection shall be installed within the bedroom.

**915.2.2 Sleeping units.** Carbon monoxide detection shall be installed in sleeping units.

EXCEPTION: Carbon monoxide detection shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the sleeping unit where the sleeping unit or its attached bathroom does not contain a fuel-burning appliance or fuel-burning fireplace and is not served by a forced air furnace.

**915.2.3 Group E occupancies.** When required by Section 915.1 in new buildings, or by Chapter 11 of the *International Fire Code*, carbon monoxide detection shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed by school personnel.

EXCEPTIONS: 1. Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies with an occupant load of 50 or less.  
2. Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies where an exception contained in Section 915.1 applies, or in Group E occupancies where signals are transmitted to an off-site service monitored by a third party, such as a service that monitors fire protection systems in the building.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-0915, filed 1/19/16, effective 7/1/16.]

**(Effective until July 1, 2020)**

**WAC 51-50-1004 Section 1004. Table 1004.1.2, Maximum Floor Area Allowances**

**Table 1004.1.2  
Maximum Floor Area Allowances Per Occupant**

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR <sup>a</sup>
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Exhibit gallery and museum	30 net
Assembly with fixed seats	See Section 1004.4

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR <sup>a</sup>
Assembly without fixed seats	
Concentrated (chairs only - Not fixed)	7 net
Standing space	5 net <sup>b</sup>
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms - Other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
Group H-5 - Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mall buildings - Covered and open	See Section 402.8.2
Mercantile	60 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

For SI: 1 square foot = 0.0929 m<sup>2</sup>, 1 foot = 304.8 mm.

a Floor area in square feet per occupant.

b The occupant load factor for fixed guideway transit and passenger rail systems shall be 15 net in accordance with NFPA 130.

**1004.2 Increased occupant load.** The *occupant load* permitted in any building, or portion thereof, is permitted to be increased from that number established for the occupancies in Table 1004.1.2, provided that all other requirements of the code are also met based on such modified number and the *occupant load* does not exceed one occupant per

7 square feet (0.65 m<sup>2</sup>) of occupiable floor space. Where required by the *building official*, an *approved aisle*, seating or fixed equipment diagram substantiating any increase in *occupant load* shall be submitted. Where required by the *building official*, such diagram shall be posted. See WAC 170-295-0080 (1)(b) for day care licensed by the state of Washington.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-1004, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-1004, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-1004 Section 1004—Occupant load.**

**Table 1004.5, Maximum Floor Area Allowances Per Occupant**

**Table 1004.5  
Maximum Floor Area Allowance Per Occupant**

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR <sup>a</sup>
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Exhibit gallery and museum	30 net
Billiard table/game table area	50 gross
Assembly with fixed seats	See Section 1004.6
Assembly without fixed seats	
Concentrated (chairs only - not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	
Concentrated business use areas	150 gross (See Section 1004.8)
Courtrooms - Other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR <sup>a</sup>
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
Group H-5 fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mall buildings - Covered and open	See Section 402.8.2
Mercantile	60 gross
Storage, stock, shipping areas	300 gross
Group M art gallery	30 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m<sup>2</sup>.

a Floor area in square feet per occupant.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1004, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-1004, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-1004, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-1005 Section 1005—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1005, filed 2/1/13, effective 7/1/13. Statutory Authority: Chapter 19.27 RCW. WSR 10-24-059, § 51-50-1005, filed 11/29/10, effective 7/1/11.]

***(Effective until July 1, 2020)***

**WAC 51-50-1006 Section 1006—Number of exits and exit access doorways.**

**1006.2.2.6 Electrical equipment rooms.** Rooms containing electrical equipment shall be provided with a second exit or exit access doorways as required by NFPA 70 Article 110 where all of the following apply:

1. The electrical equipment is rated at 1,200 amperes or more.
2. The electrical equipment is over 6 feet (1829 mm) wide.
3. The electrical equipment contains overcurrent devices, switching devices or control devices.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1006, filed 1/19/16, effective 7/1/16.]

*(Effective July 1, 2020)*

**WAC 51-50-1006 Section 1006—Number of exits and exit access doorways.**

**Table 1006.2.1  
Spaces with One Exit or Exit Access Doorway**

OCCUPANCY	MAXIMUM OCCUPANT LOAD OF SPACE	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)		
		Without Sprinkler System (feet)		With Sprinkler System (feet)
		Occupant Load		
		OL ≤ 30	OL ≥ 30	
A <sup>c</sup> , E <sup>h</sup> , M	49	75	75	75 <sup>a</sup>
B	49	100	75	100 <sup>a</sup>
F	49	75	75	100 <sup>a</sup>
H-1, H-2, H-3	3	NP	NP	25 <sup>b</sup>
H-4, H-5	10	NP	NP	75 <sup>b</sup>
I-1, I-2 <sup>d</sup> , I-4	10	NP	NP	75 <sup>b</sup>
I-3	10	NP	NP	100 <sup>a</sup>
R-1	10	NP	NP	75 <sup>a</sup>
R-2	20	NP	NP	125 <sup>a</sup>
R-3 <sup>e</sup>	20	NP	NP	125 <sup>a,g</sup>
R-4 <sup>e</sup>	20	NP	NP	125 <sup>a,g</sup>
S <sup>f</sup>	29	100	75	100 <sup>a</sup>
U	49	100	75	75 <sup>a</sup>

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

- a Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.2.
- b Group H occupancies equipped throughout with an automatic sprinkler system in accordance with Section 903.2.5.
- c For a room or space used for assembly purposes having fixed seating, see Section 1029.8.
- d For the travel distance limitations in Group I-2, see Section 407.4.
- e The common path of egress travel distance shall only apply in a Group R-3 occupancy located in a mixed occupancy building.
- f The length of common path of egress travel distance in a Group S-2 open parking garage shall be not more than 100 feet.
- g For the travel distance limitations in Groups R-3 and R-4 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.3, see Section 1006.2.2.6.
- h Day care facilities, rooms or spaces where care is provided for more than 10 children that are 2 1/2 years of age or less, shall have access to not less than two exits or exit access doorways.

**1006.2.1 Egress based on occupant load and common path of egress travel distance.** Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1. The cumu-

relative occupant load from adjacent rooms, areas or spaces shall be determined in accordance with Section 1004.2.

- EXCEPTIONS:
1. The number of exits from foyers, lobbies, vestibules or similar spaces need not be based on cumulative occupant loads for areas discharging through such spaces, but the capacity of the exits from such spaces shall be based on applicable cumulative occupant loads.
  2. Care suites in Group I-2 occupancies complying with Section 407.4.
  3. Unoccupied mechanical rooms and penthouses are not required to comply with the common path of egress travel distance measurement.

**1006.2.2.4 Group I-4 means of egress.** This section is not adopted.

**1006.2.2.6 Electrical equipment rooms.** Rooms containing electrical equipment shall be provided with a second exit or exit access doorways as required by NFPA 70 Article 110 where all of the following apply:

1. The electrical equipment is rated at 1,200 amperes or more.
2. The electrical equipment is over 6 feet (1829 mm) wide.
3. The electrical equipment contains overcurrent devices, switching devices or control devices.

**1006.3.3 Single exits.** A single exit or access to a single exit shall be permitted from any story or occupied roof where one of the following conditions exists:

1. The occupant load, number of dwelling units and exit access travel distance within the portion of the building served by the single exit do not exceed the values in Table 1006.3.3(1) or 1006.3.3(2).
2. Rooms, areas and spaces complying with Section 1006.2.1 with exits that discharge directly to the exterior at the level of exit discharge, are permitted to have one exit or access to a single exit.
3. Parking garages where vehicles are mechanically parked shall be permitted to have one exit or access to a single exit.
4. Groups R-3 and R-4 occupancies shall be permitted to have one exit or access to a single exit.
5. Individual single-story or multistory dwelling units shall be permitted to have a single exit or access to a single exit from the dwelling unit provided that both of the following criteria are met:
  - 5.1. The dwelling unit complies with Section 1006.2.1 as a space with one means of egress.
  - 5.2. Either the exit from the dwelling unit discharges directly to the exterior at the level of exit discharge, or the exit access outside the dwelling unit's entrance door provides access to not less than two approved independent exits.

**Table 1006.3.3(1)**

**Stories with One Exit or Access to One Exit for R-2 Occupancies**

Story	Occupancy	Maximum Number of Dwelling Units	Maximum Exit Access Travel Distance
Basement, first, second, or third story above grade plane	R-2 <sup>a,b</sup>	4 dwelling units	125 feet
Fourth story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

NA = Not Applicable.

<sup>a</sup> Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1030.

b This table is used for R-2 occupancies consisting of dwelling units.  
 For R-2 occupancies consisting of sleeping units, use Table 1006.3.3(2).

**Table 1006.3.3(2)**

**Stories with One Exit or Access to One Exit for Other Occupancies**

Story	Occupancy	Maximum Occupant Load per Story	Maximum Exit Access Travel Distance (feet)
First story above or below grade plane	A, B <sup>b</sup> , E, F <sup>b</sup> , M, U	49	75
	H-2, H-3	3	25
	H-4, H-5, I, R-1, R-2 <sup>a,c</sup>	10	75
	S <sup>b,d</sup>	29	75
Second story above grade plane	B, F, M, S	29	75
Third story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

NA = Not Applicable.

- a Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1030.
- b Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall have a maximum exit access travel distance of 100 feet.
- c This table is used for R-2 occupancies consisting of sleeping units. For R-2 occupancies consisting of dwelling units, use Table 1006.3.3(1).
- d The length of exit access travel distance in a Group S-2 open parking garage shall be not more than 100 feet.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1006, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1006, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-1007 Section 1007—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1007, filed 1/19/16, effective 7/1/16; WSR 10-03-097, § 51-50-1007, filed 1/20/10, effective 7/1/10.]

**(Effective until July 1, 2020)**

**WAC 51-50-1008 Section 1008—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1008, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1008, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1008, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1008,

filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-1008, filed 12/5/05, effective 7/1/06. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1008, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-1008 Section 1008—Means of egress illumination.**

**1008.2.3 Exit discharge.** This subsection not adopted.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-103, § 51-50-1008, filed 12/13/19, effective 7/1/20; WSR 16-03-064, § 51-50-1008, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1008, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1008, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1008, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-1008, filed 12/5/05, effective 7/1/06. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1008, filed 12/17/03, effective 7/1/04.]

**(Effective until July 1, 2020)**

**WAC 51-50-1009 Section 1009—Accessible means of egress.**

**1009.1 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* is required by Section 1006.2 or 1006.3 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 to be provided in existing buildings.
2. One accessible *means of egress* is required from an *accessible mezzanine* level in accordance with Section 1009.3, 1009.4 or 1009.5.
3. In assembly areas with ramped *aisles* or stepped *aisles*, one accessible *means of egress* is permitted where the *common path of egress travel* is *accessible* and meets the requirements in Section 1029.8.
4. In parking garages, accessible means of egress are not required to serve parking areas that do not contain accessible parking spaces.

**1009.8 Two-way communication.** A two-way communication system complying with Sections 1009.8.1 and 1009.8.2 shall be provided at the landing serving each elevator or bank of elevators on each accessible floor that is one or more stories above or below the *level of exit discharge*.

EXCEPTIONS:

1. Two-way communication systems are not required at the landing serving each elevator or bank of elevators where the two-way communication system is provided within *areas of refuge* in accordance with Section 1009.6.5.
2. Two-way communication systems are not required on floors provided with *ramps* that provide a direct path of egress travel to grade or the level of exit discharge conforming to the provisions of Section 1012.
3. Two-way communication systems are not required at the landings serving only service elevators that are not designated as part of the accessible *means of egress* or serve as part of the required *accessible route* into a facility.
4. Two-way communication systems are not required at the landings serving only freight elevators.
5. Two-way communication systems are not required at the landing serving a private residence elevator.

**1009.8.1 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 a *constantly attended location*, 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1009, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1009, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1009, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1009, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1009, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-1009 Section 1009—Accessible means of egress.**

**1009.1 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 is required by Section 1006.2 or 1006.3 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 to be provided in existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1009.3, 1009.4 or 1009.5.
3. In assembly areas with ramped aisles or stepped aisles, one accessible means of egress is permitted where the common path of egress travel is accessible and meets the requirements in Section 1029.8.
4. In parking garages, accessible means of egress are not required to serve parking areas that do not contain accessible parking spaces.

**1009.2.1 Elevators required.** In buildings where a required accessible floor or accessible occupied roof is four or more stories above or below a level of exit discharge, not less than one required accessible means of egress shall be an elevator complying with Section 1009.4.

EXCEPTIONS:

1. In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a horizontal exit and located at or above the levels of exit discharge.
2. In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a ramp conforming to the provisions of Section 1012.

**1009.8 Two-way communication.** A two-way communication system complying with Sections 1009.8.1 and 1009.8.2 shall be provided at the landing serving each elevator or bank of elevators on each accessible floor that is one or more stories above or below the level of exit discharge.

EXCEPTIONS:

1. Two-way communication systems are not required at the landing serving each elevator or bank of elevators where the two-way communication system is provided within areas of refuge in accordance with Section 1009.6.5.
2. Two-way communication systems are not required on floors provided with ramps that provide a direct path of egress travel to grade or the level of exit discharge conforming to the provisions of Section 1012.
3. Two-way communication systems are not required at the landings serving only service elevators that are not designated as part of the accessible means of egress or serve as part of the required accessible route into a facility.
4. Two-way communication systems are not required at the landings serving only freight elevators.
5. Two-way communication systems are not required at the landing serving a private residence elevator.

**1009.8.1 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 a constantly attended location, 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1009, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1009, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1009, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1009, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1009, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1009, filed 12/17/03, effective 7/1/04.]

***(Effective until July 1, 2020)***

**WAC 51-50-10100 Section 1010—Doors, gates, and turnstiles.**

**1010.1.9.3 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 door or doors are 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 I-1 condition 2 assisted living facilities licensed by the state of Washington, 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.

**1010.1.9.6 Controlled egress doors in Groups I-1 and I-2.** Electric locking systems, including electromechanical locking systems and electromagnetic locking systems, shall be permitted to be locked in the means of egress in Group I-1 or I-2 occupancies where the clinical needs of persons receiving care require their containment. Controlled egress doors 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 are installed and operate in accordance with all of the following:

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 locking system shall be installed to have the capability of being unlocked by a switch located at the fire command center, a nursing station or other approved location. The switch shall directly break power to the lock.

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 unlocking the doors 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. All clinical staff shall have the keys, codes or other means necessary to operate the locking systems.

7. Emergency lighting shall be provided at the door.

8. The door locking system units shall be listed in accordance with UL 294.

**EXCEPTION:**

1. 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.

2. Items 1 through 4 and 6 shall not apply to doors to areas where a listed egress control system is utilized to reduce the risk of child abduction from nursery and obstetric areas of a Group I-2 hospital.

**1010.1.10 Panic and fire exit hardware.** Doors serving a Group H occupancy and doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than panic hardware or fire exit hardware.

**EXCEPTIONS:**

1. A main exit of a Group A occupancy shall be permitted to be locking in accordance with Section 1010.1.9.3, Item 2.

2. Doors serving a Group A or E occupancy shall be permitted to be electromagnetically locked in accordance with Section 1010.1.9.9.

**1010.1.10.3 Electrical rooms and working clearances.** Exit and exit access doors serving electrical rooms and working spaces shall swing in the direction of egress travel and shall be equipped with panic hardware or fire exit hardware where such rooms or working spaces contain one or more of the following:

1. Equipment operating at more than 600 volts, nominal.

2. Equipment operating at 600 volts or less, nominal and rated at 800 amperes or more, and where the equipment contains overcurrent devices, switching devices or control devices.

EXCEPTION: Panic and fire exit hardware is not required on exit and exit access doors serving electrical equipment rooms and working spaces where such doors are not less than twenty-five feet (7.6 m) from the nearest edge of the electrical equipment.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-10100, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-10100, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-10100, filed 1/20/10, effective 7/1/10.]

**(Effective July 1, 2020)**

**WAC 51-50-10100 Section 1010—Doors, gates, and turnstiles.**

**1010.1.9.4 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 door or doors are 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. Doors serving roofs not intended to be occupied shall be permitted to be locked preventing entry to the building from the roof.
7. Approved, listed locks without delayed egress shall be permitted in Group I-1 condition 2 assisted living facilities licensed by the state of Washington, provided that:
  - 7.1. The clinical needs of one or more patients require specialized security measures for their safety.
  - 7.2. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
  - 7.3. The doors unlock upon loss of electrical power controlling the lock or lock mechanism.
  - 7.4. The lock shall be capable of being deactivated by a signal from a switch located in an approved location.

7.5. 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.

8. Other than egress courts, where occupants must egress from an exterior space through the building for means of egress, exit access doors shall be permitted to be equipped with an approved locking device where installed and operated in accordance with all of the following:

8.1. The occupant load of the occupied exterior area shall not exceed 300 as determined by IBC Section 1004.

8.2. The maximum occupant load shall be posted where required by Section 1004.9. Such sign shall be permanently affixed inside the building and shall be posted in a conspicuous space near all the exit access doorways.

8.3. A weatherproof telephone or two-way communication system installed in accordance with Sections 1009.8.1 and 1009.8.2 shall be located adjacent to not less than one required exit access door on the exterior side.

8.4. The egress door locking device is readily distinguishable as locked and shall be a key-operated locking device.

8.5. A clear window or glazed door opening, not less than 5 square feet (0.46 m<sup>2</sup>) sq. ft. in area, shall be provided at each exit access door to determine if there are occupants using the outdoor area.

8.6. A readily visible durable sign shall be posted on the interior side on or adjacent to each locked required exit access door serving the exterior area stating: THIS DOOR TO REMAIN UNLOCKED WHEN THE OUTDOOR AREA IS OCCUPIED. The letters on the sign shall be not less than 1 inch high on a contrasting background.

9. Locking devices are permitted on doors to balconies, decks or other exterior spaces serving individual dwelling or sleeping units.

10. Locking devices are permitted on doors to balconies, decks or other exterior spaces of 250 square feet or less, serving a private office space.

**1010.1.9.7 Controlled egress doors in Groups I-1 and I-2.** Electric locking systems, including electromechanical locking systems and electromagnetic locking systems, shall be permitted to be locked in the means of egress in Group I-1 or I-2 occupancies where the clinical needs of persons receiving care require their containment. Controlled egress doors 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 are installed and operate in accordance with all of the following:

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 locking system shall be installed to have the capability of being unlocked by a switch located at the fire command center, a nursing station or other approved location. The switch shall directly break power to the lock.

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 unlocking the doors 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. All clinical staff shall have the keys, codes or other means necessary to operate the locking systems.

7. Emergency lighting shall be provided at the door.

8. The door locking system units shall be listed in accordance with UL 294.

EXCEPTION:

1. 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.
2. Items 1 through 4 and 6 shall not apply to doors to areas where a listed egress control system is utilized to reduce the risk of child abduction from nursery and obstetric areas of a Group I-2 hospital.

**1010.1.10 Panic and fire exit hardware.** Swinging doors serving a Group H occupancy and swinging doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than panic hardware or fire exit hardware.

EXCEPTIONS:

1. A main exit of a Group A occupancy shall be permitted to have locking devices in accordance with Section 1010.1.9.4, Item 2.
2. Doors provided with panic hardware or fire exit hardware and serving a Group A or E occupancy shall be permitted to be electromagnetically locked in accordance with Section 1010.1.9.9 or 1010.1.9.10.
3. Exit access doors serving occupied exterior areas shall be permitted to be locked in accordance with Section 1010.1.9.4, Item 7.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide, and that contain overcurrent devices, switching devices or control devices with exit or exit access doors, shall be equipped with panic hardware or fire exit hardware. The doors shall swing in the direction of egress travel.

**1010.1.10.3 Electrical rooms and working clearances.** Exit and exit access doors serving electrical rooms and working spaces shall swing in the direction of egress travel and shall be equipped with panic hardware or fire exit hardware where such rooms or working spaces contain one or more of the following:

1. Equipment operating at more than 600 volts, nominal.
2. Equipment operating at 600 volts or less, nominal and rated at 800 amperes or more, and where the equipment contains overcurrent devices, switching devices or control devices.

EXCEPTION:

Panic and fire exit hardware is not required on exit and exit access doors serving electrical equipment rooms and working spaces where such doors are not less than twenty-five feet (7.6 m) from the nearest edge of the electrical equipment.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-10100, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-10100, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-10100, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-10100, filed 1/20/10, effective 7/1/10.]

**(Effective until July 1, 2020)**

**WAC 51-50-1011 Section 1011—Stairways.**

**1011.17 Stairways in individual dwelling units.** Stairs or ladders within an individual dwelling unit used for access to areas of 200

square feet (18.6 m<sup>2</sup>) or less, and not containing the primary bathroom or kitchen, are exempt from the requirements of Section 1011.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1011, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-1011 Section 1011—Stairways.**

**1011.7 Stairway construction.** Stairways shall be built of materials consistent with the types permitted for the type of construction of the building.

EXCEPTIONS: 1. Wood handrails shall be permitted in all types of construction.  
2. Interior exit stairway in accordance with Section 510.2.

**1011.17 Stairways in individual dwelling units.** Stairs or ladders within an individual dwelling unit used for access to areas of 200 square feet (18.6 m<sup>2</sup>) or less, and not containing the primary bathroom or kitchen, are exempt from the requirements of Section 1011.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1011, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1011, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-1012 Section 1012—Ramps.**

**1012.1 Scope.** The provisions of this section shall apply to ramps used as a component of a *means of egress*.

EXCEPTIONS: 1. Ramped *aisles* within assembly rooms or spaces shall conform with the provisions in Section 1029.13.  
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 Sections 1012.3 through 1012.10 where they are not an *accessible route* serving *accessible* parking spaces, other required *accessible* elements, or part of an *accessible means of egress*.  
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 1012.5, 1012.6, and 1012.9. A landing complying with Sections 1012.6.1 and 1012.6.4 shall be provided at any change of direction in the accessible means of egress.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1012, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-1014 Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1014, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1014, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1014, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-1015 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1015, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW

19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1015, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-1018 Section 1018—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1018, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1018, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, amended and recodified as § 51-50-1018, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1017, filed 12/19/06, effective 7/1/07.]

***(Effective until July 1, 2020)***

**WAC 51-50-1019 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1019, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1019, filed 12/19/06, effective 7/1/07.]

***(Effective July 1, 2020)***

**WAC 51-50-1019 Section 1019—Exit access stairways and ramps.**

**1019.3 Occupancies other than Groups I-2 and I-3.** In other than Groups I-2 and I-3 occupancies, floor openings containing exit access stairways or ramps shall be enclosed with a shaft enclosure constructed in accordance with Section 713.

- EXCEPTIONS:
1. Exit access stairways and ramps that serve or atmospherically communicate between only two stories. Such interconnected stories shall not be open to other stories.
  2. In Group R-1, R-2 or R-3 occupancies, exit access stairways and ramps connecting four stories or less serving and contained within an individual dwelling unit or sleeping unit or live/work unit.
  3. Exit access stairways serving and contained within a Group R-3 congregate residence or a Group R-4 facility are not required to be enclosed.
  4. Exit access stairways and ramps in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, where the area of the vertical opening between stories does not exceed twice the horizontal projected area of the stairway or ramp and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Group B and M occupancies, this provision is limited to openings that do not connect more than four stories.
  5. Exit access stairways and ramps within an atrium complying with the provisions of Section 404.
  6. Exit access stairways and ramps in open parking garages that serve only the parking garage.
  7. Exit access stairways and ramps serving smoke-protected or open-air assembly seating complying with the exit access travel distance requirements of Section 1029.7.
  8. Exit access stairways and ramps 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1019, filed 12/12/19, effective 7/1/20; WSR 10-03-097, § 51-50-1019, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1019, filed 12/19/06, effective 7/1/07.]

***(Effective until July 1, 2020)***

**WAC 51-50-1020 Section 1020—Corridors.**



**1020.5 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 one thousand square feet (93 m<sup>2</sup>) 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.
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 and sleeping units subject to the following:
  - 6.1 The air supplied to the corridor is one hundred percent outside air; and
  - 6.2 The units served by the corridor have conforming ventilation air 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1020, filed 1/19/16, effective 7/1/16.]

*(Effective July 1, 2020)*

**WAC 51-50-1020 Section 1020—Corridors.**

**1020.4 Dead ends.** Where more than one exit or exit access doorway is required, the exit access shall be arranged such that dead-end corridors do not exceed 20 feet (6096 mm) in length.

EXCEPTIONS:

1. In Group I-3, Condition 2, 3 or 4, occupancies, the dead end in a corridor shall not exceed 50 feet (15,240 mm).
2. In occupancies in Groups B, E, F, I-1, M, R-1, R-2, S and U, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the length of the dead-end corridors shall not exceed 50 feet (15,240 mm).
3. A dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.
4. In Group I-2, Condition 2 occupancies, the length of dead end corridors that do not serve patient rooms or patient treatment spaces shall not exceed 30 feet (9144 mm).

**1020.5 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 one thousand square feet (93 m<sup>2</sup>) 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.
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 and sleeping units subject to the following:
  - 6.1 The air supplied to the corridor is one hundred percent outside air; and
  - 6.2 The units served by the corridor have conforming ventilation air 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1020, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1020, filed 1/19/16, effective 7/1/16.]

*(Effective July 1, 2020)*

**WAC 51-50-1023 Section 1023—Interior exit stairways and ramps.**

**1023.2 Construction.** Enclosures for interior exit stairways and ramps shall be constructed as fire barriers in accordance with Section 707 or *horizontal* assemblies constructed in accordance with Section 711, or both. Interior exit stairway and ramp enclosures shall have a *fire-resistance rating* of not less than 2 hours where connecting four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the interior exit stairways or ramps shall include any basements, but not any mezzanines. Interior exit stairways and ramps shall have a *fire-resistance rating* not less than the floor assembly penetrated, but need not exceed 2 hours.

EXCEPTIONS:     1. Interior exit stairways and ramps in Group I-3 occupancies in accordance with the provisions of Section 408.3.8.  
                  2. Interior exit stairways within an atrium enclosed in accordance with Section 404.6.  
                  3. Interior exit stairway in accordance with Section 510.2.

**1023.5 Penetrations.** Penetrations into or through interior exit stairways and ramps are prohibited except for the following:

1. Equipment and ductwork necessary for independent ventilation or pressurization;
2. Fire protection systems;
3. Security systems;
4. Two-way communication systems;
5. Electrical raceway for fire department communication systems;
6. Electrical raceway serving the interior exit stairway and ramp and terminating at a steel box not exceeding 16 square inches (0.010 m);
7. Structural elements supporting the interior exit stairway or ramp or enclosure, such as beams or joists.

**1023.11 Smokeproof enclosures.** Where required by Section 403.5.4, 405.7.2 or 412.2.2.1, interior exit stairways and ramps shall be smokeproof enclosures in accordance with Section 909.20. Where interior exit stairways and ramps are pressurized in accordance with Section 909.20.5, the smoke control pressurization system shall comply with the requirements specified in Section 909.6.3.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1023, filed 12/12/19, effective 7/1/20.]

**(Effective July 1, 2020)**

**WAC 51-50-10240 Section 1024—Exit passageways.**

**1024.8 Exit passageway exterior walls.** Exterior walls of the exit passageway shall comply with Section 705. Where nonrated walls or unprotected openings enclose the exterior of the exit passageway and the walls or openings are exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the building exterior walls within 10 feet (3048 mm) horizontally of a nonrated wall or unprotected opening shall have a *fire-resistance rating* of not less than 1 hour. Openings within such exterior walls shall be protected by opening protectives having a *fire-protection rating* of not less than 3/4 hour. This construction shall extend vertically from the ground to a point 10 feet (3048 mm) above the floor of the exit passageway, or to the roof line, whichever is lower.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-10240, filed 12/12/19, effective 7/1/20.]

***(Effective until July 1, 2020)***

**WAC 51-50-1028 Section 1028—Exit discharge.**

**1028.4.1 Width or capacity.** The required capacity of egress courts shall be determined as specified in Section 1005.1, but the minimum width shall be not less than 44 inches (1,118 mm), except as specified herein. Egress courts serving Group R-3 and U occupancies shall be not less than 36 inches (914 mm) in width. The required capacity and width of egress courts shall be unobstructed to a height of 7 feet (2,134 mm).

EXCEPTION: Encroachments complying with Section 1005.7.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1028, filed 1/19/16, effective 7/1/16.]

***(Effective July 1, 2020)***

**WAC 51-50-1028 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1028, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1028, filed 1/19/16, effective 7/1/16.]

***(Effective July 1, 2020)***

**WAC 51-50-10300 Section 1030—Emergency escape and rescue.**

**1030.6 Drainage.** Window wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section 1805.4.2 or by an approved alternative method.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-10300, filed 12/12/19, effective 7/1/20.]

**WAC 51-50-1101 Section 1101—General.**

**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 (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).

**1101.2.2 (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 ANSI 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.

**1101.2.3 (ICC A117.1 Section 407.4.6.2.2) Arrangement of elevator car buttons.** Buttons shall be arranged with numbers in ascending order. When two or more columns of buttons are provided they shall read from left to right.

**1101.2.4 (ICC ANSI A117.1 606.7) Operable parts.** Operable parts on drying equipment, towel or cleansing product dispensers, and disposal fixtures shall comply with Table 603.6.

**1101.2.5 (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. 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.

**1101.2.6 (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.

**1101.2.7 (ICC A117.1 Section 502.2) Vehicle space size.** Car and van parking spaces shall be 96 inches (2440 mm) minimum in width.

**1101.2.8 (ICC A117.1 Section 502.4.2) Access aisle width.** Access aisles serving car parking spaces shall be 60 inches (1525 mm) minimum in width. Access aisles serving van parking spaces shall be 96 inches (2440 mm) minimum in width.

**1101.2.9 (ICC A117.1 Section 502.7) Identification.** Accessible parking spaces shall be indicated by a vertical sign. The signs shall include the International Symbol of Accessibility complying with section 703.6.3.1. Such symbol shall be white on a blue background. Signs identifying van parking spaces shall contain the designation "van accessible." The sign may include additional language such as, but not limited to, an indication of the amount of the monetary penalty defined in RCW 46.19.050 for parking in the space without a valid permit. A vertical "no parking" sign shall be erected at the head of each access aisle located adjacent to an accessible parking space. The sign may include additional language such as, but not limited to, an indication of any penalty for parking in an access aisle. Such signs shall be 60 inches (1525 mm) minimum above the floor of the parking space, measured to the bottom of the sign.

[Statutory Authority: RCW 19.27.074 and 19.27.550. WSR 17-23-182, § 51-50-1101, filed 11/21/17, effective 7/1/18. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1101, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1101, filed 2/1/13, effec-

tive 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1101, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074, and chapters 19.27 and 34.05 RCW. WSR 05-24-070, § 51-50-1101, filed 12/5/05, effective 7/1/06; WSR 05-01-014, § 51-50-1101, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1101, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-11050 Section 1105—Accessible entrances.**

**1105.1.8 Automatic doors.** In facilities with the occupancies and building occupant loads indicated in Table 1105.1.8, all public entrances that are required to be accessible shall have one door be either a full power-operated door or a low-energy power-operated door. Where the public entrance includes a vestibule, at least one door into and one door out of the vestibule shall meet the requirements of this section.

**Table 1105.1.8<sup>a</sup>**  
**PUBLIC ENTRANCE WITH POWER-OPERATED DOORS<sup>a</sup>**

<b>Occupancy</b>	<b>Building Occupant Load Greater Than</b>
A-1, A-2, A-3, A-4	300
B, M, R-1	500

<sup>a</sup> In mixed-use facilities containing occupancies listed, when the total sum of the occupant load is greater than those listed, the most restrictive building occupant load shall apply.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-11050, filed 12/12/19, effective 7/1/20.]

**WAC 51-50-1106 Section 1106—Parking and passenger loading facilities.**

**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.

- EXCEPTION:
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.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1106, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1106,

filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1106, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1106, filed 12/17/03, effective 7/1/04.]

**(Effective until July 1, 2020)**

**WAC 51-50-1107 Section 1107—Dwelling units and sleeping units.**

**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.

**1107.6.2.2.1 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. Bedrooms in monasteries and convents shall be counted as *sleeping units* for the purpose of determining the number of units. Where the *sleeping units* are grouped into suites, only one *sleeping unit* in each suite shall count towards the number of required *Type A units*.

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.

**1107.6.2.3 Group R-2 other than live/work units, apartment houses, monasteries and convents.** In Group R-2 Occupancies, other than live/work units, apartment houses, monasteries and convents falling within the scope of Sections 1107.6.2.1 and 1107.6.2.2, accessible units and Type B units shall be provided in accordance with Sections 1107.6.2.3.1 and 1107.6.2.3.2. Bedrooms within congregate living facilities shall be counted as sleeping units for the purpose of determining the number of units. Where the sleeping units are grouped into suites, only one sleeping unit in each suite shall be permitted to count towards the number of required accessible units. Accessible units shall be dispersed among the various classes of units, as described in Section 1107.6.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1107, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1107, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1107, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1107, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-1107 Section 1107—Dwelling units and sleeping units.**

**1107.6.2.2.1 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. Bedrooms in monasteries and convents shall be counted as *sleeping units* for the purpose of determining the number of units. Where the *sleeping units* are grouped into suites, only one *sleeping unit* in each suite shall count towards the number of required *Type A units*.

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.

**1107.5.1 Group I-1.** Accessible units and Type B units shall be provided in Group I-1 occupancies in accordance with Sections 1107.5.1.1 through 1107.5.1.3.

**1107.5.1.1 Accessible units in Group I-1, Condition 1.** In Group I-1, Condition 1, at least 4 percent, but not less than one, of the dwelling units and sleeping units shall be accessible units.

EXCEPTIONS:      1. In not more than 50 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.2.  
                     2. In not more than 50 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

**1107.5.1.2 Accessible units in Group I-1, Condition 2.** In Group I-1, Condition 2, at least 10 percent, but not less than one, of the dwelling units and sleeping units shall be accessible units.

EXCEPTIONS:      1. In not more than 50 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.2.  
                     2. In not more than 50 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

**1107.5.1.3 Type B units.** In structures with four or more dwelling units or sleeping units intended to be occupied as a residence, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

EXCEPTION:      The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

**1107.5.2 Group I-2 nursing homes.** Accessible units and Type B units shall be provided in nursing homes of Group I-2, Condition 1 occupancies in accordance with Sections 1107.5.2.1 and 1107.5.2.2.

**1107.5.2.1 Accessible units.** At least 50 percent but not less than one of each type of the dwelling units and sleeping units shall be accessible units.

EXCEPTIONS:      1. In not more than 90 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.2.  
                     2. In not more than 90 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

**1107.5.2.2 Type B units.** In structures with four or more dwelling units or sleeping units intended to be occupied as a residence, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

EXCEPTION:      The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

**1107.5.4 Group I-2 rehabilitation facilities.** In hospitals and rehabilitation facilities of Group I-2 occupancies that specialize in treating conditions that affect mobility, or units within either that

specialize in treating conditions that affect mobility, 100 percent of the dwelling units and sleeping units shall be accessible units.

EXCEPTIONS: 1. In not more than 50 percent of the accessible units, water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1109.2.2.  
2. In not more than 50 percent of the accessible units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

**1107.6.2.3 Group R-2 other than live/work units, apartment houses, monasteries and convents.** In Group R-2 Occupancies, other than live/work units, apartment houses, monasteries and convents falling within the scope of Sections 1107.6.2.1 and 1107.6.2.2, accessible units and Type B units shall be provided in accordance with Sections 1107.6.2.3.1 and 1107.6.2.3.2. Bedrooms within congregate living facilities shall be counted as sleeping units for the purpose of determining the number of units. Where the sleeping units are grouped into suites, only one sleeping unit in each suite shall be permitted to count towards the number of required accessible units. Accessible units shall be dispersed among the various classes of units, as described in Section 1107.6.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1107, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1107, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1107, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1107, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1107, filed 12/17/03, effective 7/1/04.]

*(Effective July 1, 2020)*

**WAC 51-50-11090 Section 1109—Other features and facilities.**

**1109.2 Toilet and bathing facilities.** Each toilet room and bathing room shall be accessible. Where a floor level is not required to be connected by an accessible route, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. Except as provided for in Sections 1109.2.3, 1109.2.4 and 1109.2.5 at least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing room shall be accessible.

EXCEPTIONS: 1. Toilet rooms or bathing rooms accessed only through a private office, not for common or public use and intended for use by a single occupant, shall be permitted to comply with the specific exceptions in ICC A117.1.  
2. This section is not applicable to toilet and bathing rooms that serve dwelling units or sleeping units that are not required to be accessible by Section 1107.  
3. Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be accessible. Where these rooms are designated as gender-neutral, the total number of accessible toilet or bathing rooms shall not be less than the sum of required accessible separate male plus female rooms.  
4. Where no more than one urinal is provided in a toilet room or bathing room, the urinal is not required to be accessible.  
5. Toilet rooms or bathing rooms that are part of critical care or intensive care patient sleeping rooms serving accessible units are not required to be accessible.  
6. Toilet rooms or bathing rooms designed for bariatrics patients are not required to comply with the toilet room and bathing room requirement in ICC A117.1. The sleeping units served by bariatrics toilet or bathing rooms shall not count toward the required number of accessible sleeping units.  
7. Where permitted in Section 1107, in toilet rooms or bathrooms serving accessible units, water closets designed for assisted toileting shall comply with Section 1109.2.2.  
8. Where permitted in Section 1107, in bathrooms serving accessible units, showers designed for assisted toileting shall comply with Section 1109.2.3.  
9. Where toilet facilities are primarily for children's use, required accessible water closets, toilet compartments and lavatories shall be permitted to comply with children's provision of ICC A117.1.



**1109.2.2 Water closets designed for assisted toileting.** Water closets designed for assisted toileting shall comply with Sections 1109.2.2.1 through 1109.2.2.6.

**1109.2.2.1 Location.** The centerline of the water closet shall be 24 inches (610 mm) minimum and 26 inches (660 mm) maximum from one side of the required clearance.

**1109.2.2.2 Clearance.** Clearance around the water closet shall comply with Sections 1109.2.2.2.1 through 1109.2.2.2.3.

**1109.2.2.2.1 Clearance width.** Clearance around a water closet shall be 66 inches (1675 mm) minimum in width, measured perpendicular from the side of the clearance that is 24 inches (610 mm) minimum and 26 inches (660 mm) maximum from the water closet centerline.

**1109.2.2.2.2 Clearance depth.** Clearance around the water closet shall be 78 inches (1980 mm) minimum in depth, measured perpendicular from the rear wall.

**1109.2.2.2.3 Clearance overlap.** The required clearance around the water closet shall be permitted overlaps in accordance with ICC A117.1 Section 604.3.3.

**1109.2.2.3 Height.** The height of the water closet seats shall comply with ICC A117.1 Section 604.4.

**1109.2.2.4 Swing-up grab bars.** The swing-up grab bars shall comply with ICC A117.1 Sections 609.2 and 609.8. Swing-up grab bars shall be provided on both sides of the water closet and shall comply with all of the following:

1. The centerline of the grab bar shall be 14 inches minimum to 16 inches (356 mm to 405 mm) maximum from the centerline of the water closet.

2. The length of the grab bar is 36 inches (915 mm) minimum in length, measured from the rear wall to the end of the grab bar.

3. The top of the grab bar in the down position is 30 inches (760 mm) minimum and 34 inches (865 mm) maximum above the floor.

**1109.2.2.5 Flush controls.** Flush controls shall comply with ICC A117.1 Section 604.6.

**1109.2.2.6 Dispensers.** Toilet paper dispensers shall be mounted on at least one of the swing-up grab bars and the outlet of the dispenser shall be located at 24 inches (610 mm) minimum to 36 inches (915 mm) maximum from the rear wall.

**1109.2.3 Standard roll-in-type shower compartment designed for assisted bathing.** Standard roll-in-type shower compartments designed for assisted bathing shall comply with Sections 1109.2.3.1 through 1109.2.3.8.

**1109.2.3.1 Size.** Standard roll-in-type shower compartments shall have a clear inside dimension of 60 inches (1525 mm) minimum in width and 30 inches (760 mm) minimum in depth, measured at the center point of opposing sides. An entry 60 inches (1525 mm) minimum in width shall be provided.

**1109.2.3.2 Clearance.** A clearance of 60 inches (1525 mm) minimum in length adjacent to the 60 inch (1525 mm) width of the open face of the shower compartment, and 30 inches (760 mm) minimum in depth, shall be provided.

EXCEPTIONS: 1. A lavatory complying with Section 606 shall be permitted at one end of the clearance.  
2. Where the shower compartment exceeds minimum sizes, the clear floor space shall be placed adjacent to the grab bars and 30 inches minimum from the back wall.

**1109.2.3.3 Grab bars.** Grab bars shall comply with ICC A117.1 Section 609 and shall be provided in accordance with Sections 1109.2.3.3.1 and 1109.2.3.3.2. In standard roll-in-type shower compartments, grab bars shall be provided on three walls. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the floor. Grab bars can be separate bars or one continuous bar.

**1109.2.3.3.1 Back-wall grab bar.** The back-wall grab bar shall extend the length of the back wall and extend within 6 inches (150 mm) maximum from the two adjacent side walls.

EXCEPTION: The back wall grab bar shall not be required to exceed 48 inches (1220 mm) in length. The rear grab bar shall be located with one end within 6 inches maximum of a side wall with a grab bar complying with Section 1109.2.3.3.2.

**1109.2.3.3.2 Side-wall grab bars.** The side-wall grab bars shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent back wall.

EXCEPTIONS: 1. The side-wall grab bar shall not be required to exceed 30 inches (760 mm) in length. The side grab bar shall be located with one end within 6 inches maximum of the back wall with a grab bar complying with Section 1109.2.3.3.1.  
2. Where the side walls are located 72 inches (1830 mm) or greater apart, a grab bar is not required on one of the side walls.

**1109.2.3.4 Seats.** Wall-mounted folding seats shall not be installed.

**1109.2.3.5 Controls and hand showers.** In standard roll-in-type showers, the controls and hand shower shall be located 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor. Controls shall be located to facilitate caregiver access.

**1109.2.3.6 Hand showers.** Hand showers shall comply with ICC A117.1 Section 608.5.

**1109.2.3.7 Thresholds.** Thresholds shall comply with ICC A117.1 Section 608.6.

**1109.2.3.8 Shower enclosures.** Shower compartment enclosures for shower compartments shall comply with ICC A117.1 Section 608.7.

**1109.2.3.9 Water temperature.** Water temperature shall comply with ICC A117.1 Section 608.8.

**1109.5.1 Minimum number.** Not fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons.

EXCEPTIONS: 1. A single drinking fountain with two separate spouts that complies with the requirements for people who use a wheelchair and standing persons shall be permitted to be substituted for two separate drinking fountains.  
2. Where drinking fountains are primarily for children's use, drinking fountains for people using wheelchairs shall be permitted to comply with the children's provisions in ICC A117.1 and drinking fountains for standing children shall be permitted to provide the spout at 30 inches (762 mm) minimum above the floor.  
3. In all occupancies that require more than two drinking fountains per floor or secured area, bottle filling stations shall be allowed to be substituted in accordance with Section 2902.5.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-11090, filed 12/12/19, effective 7/1/20.]

*(Effective July 1, 2020)*

**WAC 51-50-1202 Section 1202—Ventilation.**

**1202.1 General.** Buildings shall be provided with natural ventilation in accordance with Section 1203.5, or mechanical ventilation in ac-

cordance with the *International Mechanical Code*. *Ambulatory care facilities* and Group I-2 occupancies shall be ventilated by mechanical means in accordance with Section 407 of the *International Mechanical Code*.

**1202.2 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. Ventilators shall be installed in accordance with the manufacturer's installation instructions.

EXCEPTION: The net free cross-ventilation area shall be permitted to be reduced to 1/300 provided both of the following conditions are met:

1. A Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.
2. At least 40 percent and not more than 50 percent of the required venting area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located not more than 3 feet (914 mm) below the ridge or highest point of the space, measured vertically, with the balance of the ventilation provided by eave or cornice vents. Where the location of wall or roof framing members conflicts with the installation of upper ventilators, installation more than 3 feet (914 mm) below the ridge or highest point of the space shall be permitted.

**1202.4 Under-floor ventilation.** The space between the bottom of the floor joists and the earth under any building except spaces occupied by basements or cellars shall be provided with ventilation openings through foundation walls or *exterior walls*. Such openings shall be placed so as to provide cross ventilation of the under-floor space. A ground cover of six mil (0.006 inch thick) black polyethylene or approved equal shall be laid over the ground within crawl spaces. The ground cover shall be overlapped six inches minimum at the joints and shall extend to the foundation wall.

EXCEPTION: The ground cover may be omitted in crawl spaces if the crawl space has a concrete slab floor with a minimum thickness of two inches.

**1202.5 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*.

**1202.6 Radon resistive construction standards.** The criteria of this section establishes minimum radon resistive construction requirements for Group R Occupancies.

**1202.6.1 Application.** The requirements of Section 1202.6 shall be adopted and enforced by all jurisdictions of the state according to the following subsections.

**1202.6.1.1** All jurisdictions of the state shall comply with Section 1202.6.2.

**1202.6.1.2** Clark, Ferry, Okanogan, Pend Oreille, Skamania, Spokane, and Stevens counties shall also comply with Section 1203.6.3.

**1202.6.2 State wide radon requirements.**

**1202.6.2.1 Crawlspace.** All crawlspaces shall comply with the requirements of this section.

**1202.6.2.2 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.

**1202.6.2.3 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."

### **1202.6.3 Radon prescriptive requirements.**

**1202.6.3.1 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.

#### **1202.6.3.2 Floors in contact with the earth.**

**1202.6.3.2.1 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.

**1202.6.3.2.2 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.

**1202.6.3.2.3 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.

**1202.6.3.2.4 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.

**1202.6.3.2.5 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.

**1202.6.3.2.6 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.

**1202.6.3.2.7 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 in-line 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.

**1202.6.3.2.8 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.

**1202.6.3.2.9 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1202, filed 12/12/19, effective 7/1/20.]

**(Effective until July 1, 2020)**

**WAC 51-50-1203 Section 1203—Ventilation.**

**1203.1 General.** Buildings shall be provided with natural ventilation in accordance with Section 1203.5, or mechanical ventilation in accordance with the *International Mechanical Code*. *Ambulatory care facilities* and Group I-2 occupancies shall be ventilated by mechanical means in accordance with Section 407 of 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. Ventilators shall be installed in accordance with the manufacturer's installation instructions.

EXCEPTIONS: The net free cross-ventilation area shall be permitted to be reduced to 1/300 provided both of the following conditions are met:  
1. A Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.

2. At least 40 percent and not more than 50 percent of the required venting area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located not more than 3 feet (914 mm) below the ridge or highest point of the space, measured vertically, with the balance of the ventilation provided by eave or cornice vents. Where the location of wall or roof framing members conflicts with the installation of upper ventilators, installation more than 3 feet (914 mm) below the ridge or highest point of the space shall be permitted.

**1203.3 Unvented attic and unvented enclosed rafter assemblies.** Unvented attics and unvented enclosed roof framing assemblies created by ceilings applied directly to the underside of the roof framing members/rafters and the structural roof sheathing at the top of the roof framing members shall be permitted where all the following conditions are met:

1. The unvented attic space is completely within the building thermal envelope.

2. No interior-vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly or on the ceiling side of the unvented enclosed roof framing assembly.

3. Where wood shingles or shakes are used, a minimum 1/4 inch (6.4 mm) vented airspace separates the shingles or shakes and the roofing underlayment above the structural sheathing.

4. In Climate Zone 5B, 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.

5. Insulation shall be located in accordance with the following:

5.1 Item 5.1.1, 5.1.2, 5.1.3 or 5.1.4 shall be met, depending on the air permeability of the insulation directly under the roof sheathing.

5.1.1 Where only air-impermeable insulation is provided, it shall be applied in direct contact with the underside of the structural roof sheathing.

5.1.2 Where air-permeable insulation is provided inside the building thermal envelope, it shall be installed in accordance with Item 5.1. 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 in accordance with these R-values for condensation control:

i. Climate Zone #4C- R-10 minimum rigid board or air-impermeable insulation R-value.

ii. Climate Zone #5B- R-20 minimum rigid board or air-impermeable insulation R-value.

5.1.3 Where both air-impermeable and air-permeable insulation are provided, the air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing in accordance with Item 5.1.1 and shall be in accordance with these R-values for condensation control. The air-permeable insulation shall be installed directly under the air-impermeable insulation.

i. Climate Zone #4C- R-10 minimum rigid board or air-impermeable insulation R-value.

ii. Climate Zone #5B- R-20 minimum rigid board or air-impermeable insulation R-value.

5.1.4 Alternatively, sufficient rigid board or sheet insulation shall be installed directly above the structural roof sheathing to maintain the monthly average temperature of the underside of the structural roof sheathing above 45 degrees F. For calculation purposes, an interior air temperature of 68 degrees F is assumed and the exterior air temperature is assumed to be the monthly average outside air temperature of the three coldest months.

5.2 Where preformed insulation board is used as the air-permeable insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer.

EXCEPTIONS: 1. Section 1203.3 does not apply to special use structures or enclosures such as swimming pool enclosures, data processing centers, hospitals or art galleries.  
2. Section 1203.3 does not apply to enclosures in Climate Zone-5B that are humidified beyond 35 percent during the three coldest months.

**1203.4 Under-floor ventilation.** The space between the bottom of the floor joists and the earth under any building except spaces occupied by basements or cellars shall be provided with ventilation openings through foundation walls or exterior walls. Such openings shall be placed so as to provide cross ventilation of the under-floor space. A ground cover of six mil (0.006 inch thick) black polyethylene or approved equal shall be laid over the ground within crawl spaces. The ground cover shall be overlapped six inches minimum at the joints and shall extend to the foundation wall.

EXCEPTION: The ground cover may be omitted in crawl spaces if the crawl space has a concrete slab floor with a minimum thickness of two inches.

**1203.5 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*.

**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 in-line 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.

**1203.7 Other ventilation and exhaust systems.** Ventilation and exhaust systems for occupancies and operations involving flammable or combustible hazards or other contaminant sources as covered in the *International Mechanical Code* or the *International Fire Code* shall be provided as required by both codes.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1203, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-055, § 51-50-1203, filed 11/25/14, effective 5/1/15. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1203, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1203, filed 1/20/10, effective 7/1/10; WSR 04-01-108, § 51-50-1203, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-1203 Section 1203—Temperature control.**

**1203.1 Equipment and systems.** Interior spaces intended for human occupancy shall be provided with active or passive space-heating systems capable of maintaining an indoor temperature of not less than 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 of the space is not associated with human comfort.  
2. Group F, H, S, or U occupancies.  
3. Group R-1 Occupancies not more than 500 square feet.

**1203.2.1 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 U.S. 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.

**1203.2.2 Primary heating source.** Primary heating sources in all new and substantially remodeled buildings in designated areas shall not be dependent upon wood stoves.

**1203.2.3 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1203, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1203, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-055, § 51-50-1203, filed 11/25/14, effective 5/1/15. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1203, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1203, filed 1/20/10, effective 7/1/10; WSR 04-01-108, § 51-50-1203, filed 12/17/03, effective 7/1/04.]

#### **WAC 51-50-1204 Section 1204—Temperature control.**

**1204.1 Equipment and systems.** Interior spaces intended for human occupancy shall be provided with active or passive space-heating systems capable of maintaining an indoor temperature of not less than 68°F (20°C) at a point 3 feet (914 mm) above the floor on the design heating day.

EXCEPTION:      1. Interior spaces where the primary purpose of the space is not associated with human comfort.  
                    2. Group F, H, S, or U occupancies.  
                    3. Group R-1 Occupancies not more than 500 square feet.

**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 U.S. 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.

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

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1204, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1204, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1204, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1204, filed 12/17/03, effective 7/1/04.]

***(Effective July 1, 2020)***

**WAC 51-50-1206 Section 1206—Sound transmission.**

**1206.1 Scope.** This section shall apply to common interior walls, partitions and floor/ceiling assemblies between adjacent dwelling units and sleeping units or between dwelling units and sleeping units and adjacent public areas.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1206, filed 12/12/19, effective 7/1/20.]

***(Effective July 1, 2020)***

**WAC 51-50-1207 Section 1207—Interior space dimensions.**

**1207.4 Efficiency dwelling units.** Efficiency dwelling units shall conform to the requirements of the code except as modified herein:

1. The unit shall have a living room of not less than 190 square feet (17.7 m) of floor area.
2. The unit shall be provided with a separate closet.
3. The unit shall be provided with a kitchen sink, cooking appliance and refrigeration facilities, each having a clear working space of not less than 30 inches (762 mm) in front. Light and ventilation conforming to this code shall be provided.
4. The unit shall be provided with a separate bathroom containing a water closet, lavatory and bathtub or shower.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1207, filed 12/12/19, effective 7/1/20.]

***(Effective until July 1, 2020)***

**WAC 51-50-1208 Section 1208—Interior space dimensions.**

**1208.3 Room area.** Every dwelling unit shall have no fewer than one room that shall have not less than 120 square feet (13.9 m<sup>2</sup>) of net floor area. Other habitable rooms shall have a net floor area of not less than 70 square feet (6.5 m<sup>2</sup>).

EXCEPTION: Kitchens are not required to be of a minimum floor area.

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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1208, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1208, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1208, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-1208, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1208, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-1208 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1208, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1208, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1208, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1208, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-1208, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1208, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-1209 Section 1209—Toilet and bathroom requirements.**

**1209.3.1 Water closet compartment.** Each water closet utilized by the public or employees shall occupy a separate compartment with walls or partitions and a door enclosing the fixtures to ensure privacy. Gender-neutral toilet room water closet compartments shall be in accordance with Section 2902.2.2.

EXCEPTIONS:

1. Water closet compartments shall not be required in a single-occupant toilet room with a lockable door.
2. Toilet rooms located in child day care facilities and containing two or more water closets shall be permitted to have one water closet without an enclosing compartment.
3. This provision is not applicable to toilet areas located within Group I-3 occupancy housing areas.

**1209.3.2 Urinal partitions.** Each urinal utilized by the public or employees shall occupy a separate area with walls or partitions to provide privacy. The walls or partitions shall begin at a height not more than 12 inches (305 mm) from and extend not less than 60 inches (1524 mm) above the finished floor surface. The walls or partitions shall extend from the wall surface at each side of the urinal not less than 18 inches (457 mm) or to a point not less than 6 inches (152 mm) beyond the outermost front lip of the urinal measured from the finished back wall surface, whichever is greater.

EXCEPTIONS:

1. Urinal partitions shall not be required in a single occupant or family or assisted-use toilet room with a lockable door.
2. Toilet rooms located in child day care facilities and containing two or more urinals shall be permitted to have one urinal without partitions.
3. Urinals located in gender-neutral toilet facilities shall be in accordance with Section 2902.2.2.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1209, filed 12/12/19, effective 7/1/20.]

**WAC 51-50-1210 Section 1210—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1210, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1210, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-1210, filed 12/2/04, effective 7/1/05.]

**WAC 51-50-1403 Section 1403—Performance requirements.**

**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 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:
1. A weather-resistant exterior wall envelope shall not be required over concrete or masonry walls designed in accordance with Chapters 19 and 21, respectively.
  2. Compliance with the requirements for a means of drainage, and the requirements of Sections 1404.2 and 1405.4, shall not be required for an exterior wall envelope that has been demonstrated through testing to resist wind-driven rain, including joints, penetrations and intersections with dissimilar materials, in accordance with ASTM E 331 under the following conditions:
    - 2.1 Exterior wall envelope test assemblies shall include at least one opening, one control joint, one wall/eave interface and one wall sill. All tested openings and penetrations shall be representative of the intended end-use configuration.
    - 2.2 Exterior wall envelope test assemblies shall be at least 4 feet by 8 feet (1219 mm by 2438 mm) in size.
    - 2.3 Exterior wall envelope assemblies shall be tested at a minimum differential pressure of 6.24 pounds per square foot (psf) (0.297 kN/m<sup>2</sup>).
    - 2.4 Exterior wall envelope assemblies shall be subjected to a minimum test exposure duration of 2 hours. The exterior wall envelope design shall be considered to resist wind-driven rain where the results of testing indicate that water did not penetrate control joints in the exterior wall envelope, joints at the perimeter of openings or intersections of terminations with dissimilar materials.
  3. Exterior insulation and finish systems (EIFS) complying with Section 1408.4.1.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1403, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1403, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1403, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-1403, filed 12/18/07, effective 4/1/08.]

**WAC 51-50-1405 Section 1405—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1405, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1405, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074,

19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1405, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-1405, filed 12/2/04, effective 7/1/05.]

**WAC 51-50-1406 Section 1406—Combustible materials on the exterior sides of exterior walls.**

**1406.3 Balconies and similar projections.** Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance-rated where required by Table 601 for floor construction or shall be of Type IV construction in accordance with Section 602.4.4. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-1406, filed 12/26/18, effective 7/1/19.]

**WAC 51-50-1602 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1602, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1602, filed 12/19/06, effective 7/1/07.]

*(Effective until July 1, 2020)*

**WAC 51-50-1604 Section 1604—General design requirements.**

**Table 1604.5  
Risk Category of Buildings and Other Structures**

RISK CATEGORY	NATURE OF OCCUPANCY
I	Buildings and other structures that represent a low hazard to human life in the event of failure including, but not limited to: <ul style="list-style-type: none"> <li>• Agricultural facilities.</li> <li>• Certain temporary facilities.</li> <li>• Minor storage facilities.</li> </ul>
II	Buildings and other structures except those listed in Risk Categories I, III, and IV.
III	Buildings and other structures that represent a substantial hazard to human life in the event of failure including, but not limited to: <ul style="list-style-type: none"> <li>• Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300.</li> <li>• Buildings and other structures containing Group E or Group I-4 occupancies with an occupant load greater than 250.</li> </ul>



RISK CATEGORY	NATURE OF OCCUPANCY
	<ul style="list-style-type: none"> <li>• Buildings and other structures containing educational occupancies for students above the 12th grade with an occupant load greater than 500.</li> <li>• Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities.</li> <li>• Group I-3 occupancies.</li> <li>• Any other occupancy with an occupant load greater than 5,000.<sup>a</sup></li> <li>• Power-generating stations, water treatment facilities for potable water, wastewater treatment facilities and other public utility facilities not included in Risk Category IV.</li> <li>• Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that: <ul style="list-style-type: none"> <li>Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the <i>International Fire Code</i>; and</li> <li>Are sufficient to pose a threat to the public if released.<sup>b</sup></li> </ul> </li> </ul>
IV	<p>Buildings and other structures designated as essential facilities including, but not limited to:</p> <ul style="list-style-type: none"> <li>• Group I-2 occupancies having surgery or emergency treatment facilities.</li> <li>• Fire, rescue, ambulance and police stations, and emergency vehicle garages.</li> <li>• Designated earthquake, hurricane, or other emergency shelters.</li> <li>• Designated emergency preparedness, communications and operations centers, and other facilities required for emergency response.</li> <li>• Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category IV structures.</li> <li>• Buildings and other structures containing quantities of highly toxic materials that: <ul style="list-style-type: none"> <li>Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the <i>International Fire Code</i>; and</li> <li>Are sufficient to pose a threat to the public if released.<sup>b</sup></li> </ul> </li> <li>• Aviation control towers, air traffic control centers, and emergency aircraft hangars.</li> </ul>

RISK CATEGORY	NATURE OF OCCUPANCY
	<ul style="list-style-type: none"> <li>• Buildings and other structures having critical national defense functions.</li> <li>• Water storage facilities and pump structures required to maintain water pressure for fire suppression.</li> </ul>

<sup>a</sup> For purposes of occupant load calculation, occupancies required by Table 1004.1.2 to use gross floor area calculations shall be permitted to use net floor areas to determine the total occupant load.

<sup>b</sup> Where approved by the building official, the classification of buildings and other structures as Risk Category III or IV based on their quantities of toxic, highly toxic or explosive materials is permitted to be reduced to Risk Category II, provided it can be demonstrated by a hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive materials is not sufficient to pose a threat to the public.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-1604, filed 12/26/18, effective 7/1/19.]

**(Effective July 1, 2020)**

**WAC 51-50-1604 Section 1604—General design requirements.**

**Table 1604.5  
Risk Category of Buildings and Other Structures**

RISK CATEGORY	NATURE OF OCCUPANCY
I	Buildings and other structures that represent a low hazard to human life in the event of failure including, but not limited to: <ul style="list-style-type: none"> <li>• Agricultural facilities.</li> <li>• Certain temporary facilities.</li> <li>• Minor storage facilities.</li> </ul>
II	Buildings and other structures except those listed in Risk Categories I, III, and IV.
III	Buildings and other structures that represent a substantial hazard to human life in the event of failure including, but not limited to: <ul style="list-style-type: none"> <li>• Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300.</li> <li>• Buildings and other structures containing Group E or Group I-4 occupancies with an occupant load greater than 250.</li> <li>• Buildings and other structures containing educational occupancies for students above the 12th grade with an occupant load greater than 500.</li> <li>• Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities.</li> <li>• Group I-3 occupancies.</li> </ul>

RISK CATEGORY	NATURE OF OCCUPANCY
	<ul style="list-style-type: none"> <li>• Any other occupancy with an occupant load greater than 5,000.<sup>a</sup></li> <li>• Power-generating stations, water treatment facilities for potable water, wastewater treatment facilities and other public utility facilities not included in Risk Category IV.</li> <li>• Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that: <ul style="list-style-type: none"> <li>Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the <i>International Fire Code</i>; and</li> <li>Are sufficient to pose a threat to the public if released.<sup>b</sup></li> </ul> </li> </ul>
IV	<p>Buildings and other structures designated as essential facilities including, but not limited to:</p> <ul style="list-style-type: none"> <li>• Group I-2 occupancies having surgery or emergency treatment facilities.</li> <li>• Structures that house private emergency power generation, medical gas systems, HVAC systems or related infrastructure systems that support emergency surgery or emergency treatment.</li> <li>• Fire, rescue, ambulance and police stations, and emergency vehicle garages.</li> <li>• Designated earthquake, hurricane, or other emergency shelters.</li> <li>• Designated emergency preparedness, communications and operations centers, and other facilities required for emergency response.</li> <li>• Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category IV structures.</li> <li>• Buildings and other structures containing quantities of highly toxic materials that: <ul style="list-style-type: none"> <li>Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the <i>International Fire Code</i>; and</li> <li>Are sufficient to pose a threat to the public if released.<sup>b</sup></li> </ul> </li> <li>• Aviation control towers, air traffic control centers, and emergency aircraft hangars.</li> <li>• Buildings and other structures having critical national defense functions.</li> </ul>

RISK CATEGORY	NATURE OF OCCUPANCY
	• Water storage facilities and pump structures required to maintain water pressure for fire suppression.

<sup>a</sup> For purposes of occupant load calculation, occupancies required by Table 1004.1.2 to use gross floor area calculations shall be permitted to use net floor areas to determine the total occupant load.

<sup>b</sup> Where approved by the building official, the classification of buildings and other structures as Risk Category III or IV based on their quantities of toxic, highly toxic or explosive materials is permitted to be reduced to Risk Category II, provided it can be demonstrated by a hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive materials is not sufficient to pose a threat to the public.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1604, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-1604, filed 12/26/18, effective 7/1/19.]

**(Effective until July 1, 2020)**

**WAC 51-50-1607 Section 1607—Live loads.**

**Table 1607.1  
Minimum Uniformly Distributed Live Loads,  
 $L_0$ , And  
Minimum Concentrated Live Loads<sup>g</sup>**

OCCUPANCY OR USE	UNIFORM (psf)	CONCENTRATED (pounds)
5. Balconies and decks <sup>h</sup>	1.5 times the live load for the area served. Not required to exceed 100 psf.	—

(All other items in table and footnotes to remain unchanged)

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1607, filed 1/19/16, effective 7/1/16; WSR 10-03-097, § 51-50-1607, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-1607, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1607, filed 12/19/06, effective 7/1/07.]

**(Effective July 1, 2020)**

**WAC 51-50-1607 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1607, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-1607, filed 1/19/16, effective 7/1/16; WSR 10-03-097, § 51-50-1607, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-1607, filed 12/18/07, effective 4/1/08. Statutory Authority:

RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1607, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-1609 Section 1609—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1609, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-1609, filed 1/20/10, effective 7/1/10.]

***(Effective until July 1, 2020)***

**WAC 51-50-1613 Section 1613.5—Amendments to ASCE 7.**

**1613.5 Amendments to ASCE 7.** The provisions of Section 1613.5 shall be permitted as an amendment to the relevant provisions of ASCE 7. The text of ASCE 7 shall be amended as indicated in Sections 1613.5.2 through 1613.5.4.

**1613.5.1 Transfer of anchorage forces into diaphragm.** Modify ASCE 7 Section 12.11.2.2.1 as follows:

**12.11.2.2.1 Transfer of anchorage forces into diaphragm.** Diaphragms shall be provided with continuous ties or struts between diaphragm chords to distribute these anchorage forces into the diaphragms. Diaphragm connections shall be positive, mechanical or welded. Added chords are permitted to be used to form subdiaphragms to transmit the anchorage forces to the main continuous cross-ties. The maximum length-to-width ratio of a wood, wood structural panel or untopped steel deck sheathed structural subdiaphragm that serves as part of the continuous tie system shall be 2.5 to 1. Connections and anchorages capable of resisting the prescribed forces shall be provided between the diaphragm and the attached components. Connections shall extend into the diaphragm a sufficient distance to develop the force transferred into the diaphragm.

**1613.5.2 Increased structural height limit.** Modify ASCE 7 Section 12.2.5.4 as follows:

**12.2.5.4 Increased structural height limit for steel eccentrically braced frames, steel special concentrically braced frames, steel buckling-restrained braced frames, steel special plate shear walls, and special reinforced concrete shear walls.** The limits on height,  $h_n$ , in Table 12.2-1 are permitted to be increased from 160 ft (50 m) to 240 ft (75 m) for structures assigned to Seismic Design Categories D or E and from 100 ft (30 m) to 160 ft (50 m) for structures assigned to Seismic Design Category F, if all of the following are satisfied:

1. The structure shall not have an extreme torsional irregularity as defined in Table 12.3-1 (horizontal structural irregularity Type 1b).

2. The steel eccentrically braced frames, steel special concentrically braced frames, steel buckling-restrained braced frames, steel special plate shear walls or special reinforced concrete shear walls in any one plane shall resist no more than 60 percent of the total seismic forces in each direction, neglecting accidental torsional effects.

3. Where floor and roof diaphragms transfer forces from the vertical seismic force-resisting elements above the diaphragm to other vertical force-resisting elements below the diaphragm, these in-plane

transfer forces shall be amplified by the over-strength factor,  $\Omega_o$  for the design of the diaphragm flexure, shear, and collectors.

4. The earthquake force demands in foundation mat slabs, grade beams, and pile caps supporting braced frames and/or walls arranged to form a shear-resisting core shall be amplified by 2 for shear and 1.5 for flexure.

5. The earthquake shear force demands in special reinforced concrete shear walls shall be amplified by the over-strength factor,  $\Omega_o$ .

**1613.5.3 Analysis procedure selection.** Modify ASCE 7 Section 12.6.1 and Table 12.6-1 as follows:

**12.6.1 Analysis procedure.** The structural analysis required by Chapter 12 shall consist of one of the types permitted in Table 12.6-1, based on the structure's seismic design category, structural system, dynamic properties, and regularity, or with the approval of the authority having jurisdiction, an alternative generally accepted procedure is permitted to be used. The analysis procedure selected shall be completed in accordance with the requirements of the corresponding section referenced in Table 12.6-1.

**Table 12.6-1 Permitted Analytical Procedures**

Seismic Design Category	Structural Characteristics	Equivalent Lateral Force Procedure, Section 12.8 <sup>a</sup>	Modal Response Spectrum Analysis, Section 12.9 <sup>a</sup>	Linear Seismic Response History Procedures, Chapter 16 <sup>a</sup>	Nonlinear Seismic Response History Procedures, Chapter 16 <sup>b</sup>
B, C	All structures	P	P	P	P
D, E, F	Risk Category I or II buildings not exceeding two stories above the base	P	P	P	P
	Structures of light frame construction	P	P	P	P
	Structures with no structural irregularities and not exceeding 160 ft in structural height	P	P	P	P
	Structures exceeding 160 ft in structural height with no structural irregularities and with $T < 3.5T_s$	P	P	P	P
	Structures not exceeding 160 ft in structural height and having only horizontal irregularities of Type 2, 3, 4, or 5 in Table 12.3-1 or vertical irregularities of Type 4, 5a, or 5b in Table 12.3-2	P	P	P	P
	Structures not exceeding 160 ft in structural height and having only horizontal irregularities of Type 2, 3, 4, or 5 in Table 12.3-1 or vertical irregularities of Type 4, 5a, or 5b in Table 12.3-2	P	P	P	P
	All other structures $\leq 240$ ft in height	NP	P	P	P
	All structures $> 240$ ft in height	NP	NP	NP	p <sup>c</sup>

<sup>a</sup> P: Permitted; NP: Not Permitted;  $T_s = S_{D1}/S_{DS}$ .

<sup>b</sup> When nonlinear response history procedure is used, one of the linear procedures shall also be performed.

<sup>c</sup> Refer to Section 12.6.2 for additional requirements.

**1613.5.4 Nonlinear response history procedure for buildings in excess of 240 ft (75 m) in height.** Modify ASCE 7 Section 12.6.2 as follows:

In addition to any of the linear analysis procedures in Table 12.6-1, a nonlinear dynamic analysis in accordance with ASCE 7 Chapter 16 shall be performed, except that analysis shall be conducted for MCER ground motions. Acceptance criteria shall be compatible with providing not greater than a 10 percent, 5 percent or 2-1/2 percent risk of collapse for Risk Category II, III and IV structures, respectively. In addition, proportioning of the seismic force-resisting system shall incorporate a capacity-based approach that identifies the mechanism of nonlinear lateral displacement of the structure, those structural actions expected to yield, and those intended to remain elastic. Design shall be subject to an approved independent structural design review.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-1613, filed 12/26/18, effective 7/1/19; WSR 10-03-097, § 51-50-1613, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-1613, filed 12/18/07, effective 4/1/08.]

**(Effective July 1, 2020)**

**WAC 51-50-1613 Section 1613—Earthquake loads.**

**1613.4 Amendments to ASCE 7.** The provisions of Section 1613.4 shall be permitted as an amendment to the relevant provisions of ASCE 7. The text of ASCE 7 shall be amended as indicated in Sections 1613.4.1 through 1613.4.2.

**1613.4.1 ASCE 7 Section 12.2.5.4.** Amend ASCE 7 Section 12.11.2.2.1 as follows:

**12.2.5.4 Increased structural height limit for steel eccentrically braced frames, steel special concentrically braced frames, steel buckling-restrained braced frames, steel special plate shear walls, and special reinforced concrete shear walls.** The limits on height,  $h_n$ , in Table 12.2-1 are permitted to be increased from 160 ft (50 m) to 240 ft (75 m) for structures assigned to Seismic Design Categories D or E and from 100 ft (30 m) to 160 ft (50 m) for structures assigned to Seismic Design Category F, provided that the seismic force-resisting systems are limited to steel eccentrically braced frames, steel special concentrically braced frames, steel buckling-restrained braced frames, steel special plate shear walls, or special reinforced concrete cast-in-place shear walls and all of the following requirements are met:

1. The structure shall not have an extreme torsional irregularity as defined in Table 12.3-1 (horizontal structural irregularity Type 1b).

2. The steel eccentrically braced frames, steel special concentrically braced frames, steel buckling-restrained braced frames, steel special plate shear walls or special reinforced concrete shear walls in any one plane shall resist no more than 60 percent of the total seismic forces in each direction, neglecting accidental torsional effects.

3. Where floor and roof diaphragms transfer forces from the vertical seismic force-resisting elements above the diaphragm to other vertical force-resisting elements below the diaphragm, these in-plane

transfer forces shall be amplified by the overstrength factor,  $\Omega_o$  for the design of the diaphragm flexure, shear, and collectors.

4. The earthquake force demands in foundation mat slabs, grade beams, and pile caps supporting braced frames and/or walls arranged to form a shear-resisting core shall be amplified by 2 for shear and 1.5 for flexure. The redundancy factor,  $\rho$ , applies and shall be the same as that used for the structure in accordance with Section 12.3.4.

5. The earthquake shear force demands in special reinforced concrete shear walls shall be amplified by the over-strength factor,  $\Omega_o$ .

**1613.4.2 ASCE 7 Section 12.6.** Amend ASCE 7 Section 12.6 and Table 12.6-1 to read as follows:

**12.6 ANALYSIS PROCEDURE SELECTION**

**12.6.1 Analysis procedure.** The structural analysis required by Chapter 12 shall consist of one of the types permitted in Table 12.6-1, based on the structure's seismic design category, structural system, dynamic properties, and regularity, or with the approval of the authority having jurisdiction, an alternative generally accepted procedure is permitted to be used. The analysis procedure selected shall be completed in accordance with the requirements of the corresponding section referenced in Table 12.6-1.

**Table 12.6-1  
Permitted Analytical Procedures**

<b>Seismic Design Category</b>	<b>Structural Characteristics</b>	<b>Equivalent Lateral Force Procedure, Section 12.8<sup>a</sup></b>	<b>Modal Response Spectrum Analysis, Section 12.9.1, or Linear Response History Analysis, Section 12.9.2</b>	<b>Nonlinear Response History Procedures, Chapter 16<sup>a</sup></b>
B, C	All structures	P	P	P
D, E, F	Risk Category I or II buildings not exceeding two stories above the base	P	P	P
	Structures of light frame construction	P	P	P
	Structures with no structural irregularities and not exceeding 160 ft in structural height	P	P	P
	Structures exceeding 160 ft in structural height with no structural irregularities and with $T < 3.5T_s$	P	P	P
	Structures not exceeding 160 ft in structural height and having only horizontal irregularities of Type 2, 3, 4, or 5 in Table 12.3-1 or vertical irregularities of Type 4, 5a, or 5b in Table 12.3-2	P	P	P
	All other structures $\leq$ 240 ft in height	NP	P	P
	All structures $>$ 240 ft in height	NP	NP	p <sup>c</sup>

<sup>a</sup> P: Permitted; NP: Not Permitted;  $T_s = S_{D1}/S_{D5}$ .

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1613, filed 12/12/19, effective 7/1/20; WSR 19-02-038, §



51-50-1613, filed 12/26/18, effective 7/1/19; WSR 10-03-097, § 51-50-1613, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-1613, filed 12/18/07, effective 4/1/08.]

**WAC 51-50-1702 Section 1702—Definitions.**

**1702.1 Definitions.** The following terms are defined in Chapter 2:

- Approved agency
- Approved fabricator
- Certificate of compliance
- Designated seismic system
- Fabricated item
- Intumescent fire-resistant coatings
- Main wind-force resisting system
- Mastic fire-resistant coatings

**SMALL BUSINESS.**

- Special inspection
  - Continuous special inspection
  - Periodic special inspection
- Special inspector
- Sprayed fire-resistant materials
- Structural observation

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1702, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1702, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1702, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-1702, filed 12/17/03, effective 7/1/04.]

*(Effective until July 1, 2020)*

**WAC 51-50-1705 Section 1705—Required special inspections and tests.**

**1705.5.3 Mass timber construction.** *Special inspections of mass timber construction in buildings, structures, or portions thereof greater than 85 feet above grade plane shall be in accordance with Table 1705.5.3.*

**Table 1705.5.3  
Required Special Inspections of Mass  
Timber Construction**

Type	Continuous Special Inspection	Periodic Special Inspection
1. Inspection of anchorage and connections of mass timber construction to timber deep foundation systems.		X

Type	Continuous Special Inspection	Periodic Special Inspection
2. Inspect erection and sequence of mass timber construction.		X
3. Inspection of connections where installation methods are required to meet design loads.		
a. Threaded fasteners.		
1. Verify use of proper installation equipment.		X
2. Verify use of predrilled holes where required.		X
3. Inspect screws, including diameter, length, head type, spacing, installation angle, and depth.		X
b. Adhesive anchors installed in horizontal or upwardly inclined orientation to resist sustained tension loads.	X	
c. Bolted connections.		X
d. Other proprietary concealed connection.		X

**1705.11.1 Structural wood.** *Continuous special inspection* is required during field gluing operations of elements of the main windforce-resisting system. *Periodic special inspection* is required for nailing, bolting, anchoring and other fastening of elements of the main windforce-resisting system, including wood shear walls, wood diaphragms, drag struts, braces and hold-downs.

EXCEPTION: *Special inspections* are not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other elements of the main windforce-resisting system, where the lateral resistance is provided by sheathing of wood structural panels, and the fastener spacing of the sheathing is more than 4 inches (102 mm) on center.

**1705.12.2 Structural wood.** For the seismic force-resisting systems of structures assigned to *Seismic Design Category C, D, E, or F*:

1. *Continuous special inspection* shall be required during field gluing operations of elements of the seismic force-resisting system.

2. *Periodic special inspection* shall be required for nailing, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels and hold-downs.

EXCEPTION: *Special inspections* are not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other elements of the seismic force-resisting system, where the lateral resistance is provided by sheathing of wood structural panels, and the fastener spacing of the sheathing is more than 4 inches (102 mm) on center.

**1705.19 Sealing of mass timber.** Periodic special inspections of sealants or adhesives shall be conducted where sealant or adhesive required by Section 703.9 is applied to mass timber building elements as designated in the approved construction documents.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-1705, filed 12/26/18, effective 7/1/19; WSR 16-03-064, §

51-50-1705, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1705, filed 2/1/13, effective 7/1/13.]

**(Effective July 1, 2020)**

**WAC 51-50-1705 Section 1705—Required special inspections and tests.**

**1705.5.3 Mass timber construction.** *Special inspections of mass timber elements in Types IV-A, IV-B and IV-C construction shall be in accordance with Table 1705.5.3.*

**Table 1705.5.3  
Required Special Inspections of Mass  
Timber Construction**

Type	Continuous Special Inspection	Periodic Special Inspection
1. Inspection of anchorage and connections of mass timber construction to timber deep foundation systems.		X
2. Inspect erection and sequence of mass timber construction.		X
3. Inspection of connections where installation methods are required to meet design loads.		
3.1. Threaded fasteners.		
3.1.1. Verify use of proper installation equipment.		X
3.1.2. Verify use of predrilled holes where required.		X
3.1.3. Inspect screws, including diameter, length, head type, spacing, installation angle, and depth.		X
3.2. Adhesive anchors installed in horizontal or upwardly inclined orientation to resist sustained tension loads.	X	
3.3. Adhesive anchors not defined in 3.2		X
3.4. Bolted connections.		X
3.5. Concealed connections.		X

**1705.11.1 Structural wood.** *Continuous special inspection is required during field gluing operations of elements of the main windforce-resisting system. Periodic special inspection is required for nailing,*

bolting, anchoring and other fastening of elements of the main wind-force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces and hold-downs.

EXCEPTION: *Special inspections* are not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other elements of the main windforce-resisting system, where the lateral resistance is provided by sheathing of wood structural panels, and the fastener spacing of the sheathing is more than 4 inches (102 mm) on center.

**1705.12.2 Structural wood.** For the seismic force-resisting systems of structures assigned to *Seismic Design Category C, D, E, or F*:

1. *Continuous special inspection* shall be required during field gluing operations of elements of the seismic force-resisting system.

2. *Periodic special inspection* shall be required for nailing, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels and hold-downs.

EXCEPTION: *Special inspections* are not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other elements of the seismic force-resisting system, where the lateral resistance is provided by sheathing of wood structural panels, and the fastener spacing of the sheathing is more than 4 inches (102 mm) on center.

**1705.12.6 Plumbing, mechanical and electrical components.** Periodic special inspection of plumbing, mechanical and electrical components shall be required for the following:

1. Anchorage of electrical equipment for emergency and standby power systems in structures assigned to *Seismic Design Category C, D, E or F*.

2. Anchorage of other electrical equipment in structures assigned to *Seismic Design Category E or F*.

3. Installation and anchorage of piping systems designed to carry hazardous materials and their associated mechanical units in structures assigned to *Seismic Design Category C, D, E or F*.

4. Installation and anchorage of ductwork designed to carry hazardous materials in structures assigned to *Seismic Design Category C, D, E or F*.

5. Installation and anchorage of vibration isolation systems in structures assigned to *Seismic Design Category C, D, E or F* where the approved construction documents require a nominal clearance of .25 inch (6.4 mm) or less between the equipment support frame and restraint.

6. Installation of mechanical and electrical equipment, including ductwork, piping systems and their structural supports, where automatic fire sprinkler systems are installed in *Risk Category IV* structures assigned to *Seismic Design Category C, D, E or F* to verify one of the following:

6.1. Minimum clearances have been provided as required by Section 13.2.3 ASCE/SEI 7.

6.2. A nominal clearance of not less than 3 inches (76 mm) has been provided between fire protection sprinkler system drops and sprigs and: Structural members not used collectively or independently to support the sprinklers; equipment attached to the building structure; and other systems' piping.

Where flexible sprinkler hose fittings are used, special inspection of minimum clearances is not required.

**1705.19 Sealing of mass timber.** Periodic special inspections of sealants or adhesives shall be conducted where sealant or adhesive required by Section 703.9 is applied to mass timber building elements as designated in the approved construction documents.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1705, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-1705, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-1705, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1705, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-17090 Preconstruction load tests.**

**1709.5 Exterior window and door assemblies.** The design pressure rating of exterior windows and doors in buildings shall be determined in accordance with Section 1709.5.1 or 1709.5.2. For the purposes of this section, the required design pressure shall be determined using the allowable stress design load combinations of Section 1605.3.

EXCEPTIONS: 1. Structural wind load design pressures for window units smaller than the size tested in accordance with Section 1709.5.1 or 1709.5.2 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 1709 of the International Building Code provided they meet the applicable provisions of Chapter 24 of the International Building Code.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-17090, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-1710 Section 1710—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1710, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1710, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-1715 Section 1715—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1715, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, amended and re-codified as § 51-50-1715, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-1714, filed 12/19/06, effective 7/1/07.]

***(Effective July 1, 2020)***

**WAC 51-50-1807 Section 1807—Foundation walls, retaining walls and embedded posts and poles.**

**1807.2.2 Design lateral soil loads.** Retaining walls shall be designed for the lateral soil loads set forth in Section 1610. For structures assigned to Seismic Design Category D, E, or F, the design of retaining walls supporting more than 6 feet (1829 mm) of backfill height measured to the bottom of the footing shall incorporate the additional seismic lateral earth pressure in accordance with the geotechnical investigation where required in Section 1803.2.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-1807, filed 12/12/19, effective 7/1/20.]

**WAC 51-50-1901 Section 1901—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1901, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1901, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-1903 Section 1903—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1903, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1903, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-1904 Section 1904—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1904, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1904, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-1905 Section 1905—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1905, filed 1/19/16, effective 7/1/16; WSR 13-20-119, § 51-50-1905, filed 10/1/13, effective 11/1/13. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1905, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-1908 Section 1908—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1908, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1908, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-1909 Section 1909—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-1909, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-1909, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-2104 Section 2104—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-2104, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-2104, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-2106 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-2106, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-2106, filed 12/19/06, effective 7/1/07.]

**(Effective until July 1, 2020)**

**WAC 51-50-21070 Section 2107—Allowable stress design.**

**2107.1 General.** The design of masonry structures using *allowable stress design* shall comply with Sections 2106 and the requirements of Chapters 1 through 8 of TMS 402/ACI 530/ASCE 5 except as modified by Sections 2107.2 through 2107.4.

**2107.2 TMS 402/ACI 530/ASCE 5, Section 2.1.8.7.1.1, lap splices.** In lieu of Section 2.1.8.7.1.1, it shall be permitted to design lap splices in accordance with Section 2107.2.1.

**2107.2.1 Lap splices.** The minimum length of lap splices for reinforcing bars in tension or compression,  $l_d$ , shall be  $l_d = 0.002d_b f_s$  (**Equation 21-1**)

$$\text{For SI: } l_d = 0.29d_b f_s$$

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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-21070, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-21070, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-21070, filed 1/20/10, effective 7/1/10.]

**(Effective July 1, 2020)**

**WAC 51-50-21070 Section 2107—Allowable stress design.**

**2107.1 General.** The design of masonry structures using *allowable stress design* shall comply with Sections 2106 and the requirements of Chapters 1 through 8 of TMS 402/ACI 530/ASCE 5 except as modified by Sections 2107.2 through 2107.4.

**2107.2 TMS 402/ACI 530/ASCE 5, Section 2.1.8.7.1.1, lap splices.** In lieu of Section 2.1.8.7.1.1, it shall be permitted to design lap splices in accordance with Section 2107.2.1.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-21070, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-21070, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-21070, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-21070, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-2108 Section 2108—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-2108, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-2108, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-2108, filed 12/2/04, effective 7/1/05.]

**WAC 51-50-2111 Section 2111—Masonry fireplaces.**

**2111.8 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 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.

**2111.8.1 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-2111, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-2111, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW



19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-2111, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-2114 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 Standard Test Method for determining particulate matter emission from fires in low mass wood burning fireplaces.

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.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-2114, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-2114, filed 12/17/03, effective 7/1/04.]

*(Effective until July 1, 2020)*

**WAC 51-50-2303 Section 2303—Minimum standards and quality.**

**2303.1.4 Structural glued cross-laminated timber.** Cross-laminated timbers shall be manufactured and identified in accordance with ANSI/APA PRG 320. Cross-laminated timbers in Construction Types IV-A, IV-B, and IV-C shall be manufactured and identified in accordance with ANSI/APA PRG 320 - 18.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-2303, filed 12/26/18, effective 7/1/19.]

*(Effective July 1, 2020)*

**WAC 51-50-2303 Section 2303—Minimum standards and quality.**

**2303.1.4 Structural glued cross-laminated timber.** Cross-laminated timbers shall be manufactured and identified in accordance with ANSI/APA PRG 320. Cross-laminated timbers in Construction Types IV-A, IV-B, and IV-C shall be manufactured and identified in accordance with ANSI/APA PRG 320 - 18.

**2303.6 Nails and staples.** Nails and staples shall conform to requirements of ASTM F1667, including Supplement 1. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as follows: 80 kips per square inch (ksi) (551 MPa) for

shank diameters larger than 0.177 inch (4.50 mm) but not larger than 0.254 inch (6.45 mm), 90 ksi (620 MPa) for shank diameters larger than 0.142 inch (3.61 mm) but not larger than 0.177 inch (4.50 mm) and 100 ksi (689 MPa) for shank diameters of not less than 0.099 inch (2.51 mm) but not larger than 0.142 inch (3.61 mm). Staples used for framing and sheathing connections shall have minimum average bending moments as follows: 3.6 in.-lbs (0.41 N-m) for No. 16 gage staples, 4.0 in.-lbs (0.45 N-m) for No. 15 gage staples, and 4.3 in.-lbs (0.49 N-m) for No. 14 gage staples. Staples allowable bending moments shall be listed on the construction documents.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-2303, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-2303, filed 12/26/18, effective 7/1/19.]

## **WAC 51-50-2400 Chapter 24—Glass and glazing.**

### **Section 2405—Sloped glazing and skylights.**

**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.

**EXCEPTIONS:**

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:
  - 4.1. Each pane of the glass is 16 square feet (1.5 m<sup>2</sup>) 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 m<sup>2</sup>) 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-2400, filed 1/20/10, effective 7/1/10.]

***(Effective until July 1, 2020)***

## **WAC 51-50-2407 Section 2407—Glass in handrails and guards.**

**2407.1.1 Loads.** The panels and their support system shall be designed to withstand the loads specified in Section 1607.8, using a factor of safety of four.

**2407.1.2 Structural glass baluster panels.** Guards with structural glass baluster panels shall be installed with an attached top rail or handrail. The top rail or handrail shall be supported by a minimum of three glass baluster panels, or shall be otherwise supported to remain in place should one glass baluster panel fail.

EXCEPTION: An attached top rail or handrail is not required where the glass baluster panels are laminated glass with two or more glass plies of equal thickness and of the same glass type.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-2407, filed 1/19/16, effective 7/1/16.]

*(Effective July 1, 2020)*

**WAC 51-50-2407 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-2407, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-2407, filed 1/19/16, effective 7/1/16.]

*(Effective until July 1, 2020)*

**WAC 51-50-2603 Section 2603—Foam plastic insulation.**

**2603.10 Wind resistance.** Foam plastic insulation complying with ASTM C 578 or ASTM C 1289 and used as exterior wall sheathing on framed wall assemblies shall comply with ANSI/FS 100 for wind pressure resistance.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-2603, filed 1/19/16, effective 7/1/16.]

*(Effective July 1, 2020)*

**WAC 51-50-2603 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-2603, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-2603, filed 1/19/16, effective 7/1/16.]

*(Effective July 1, 2020)*

**WAC 51-50-2702 Section 2702—Emergency and standby power systems.**

**2702.1.5 Load duration.** Emergency power systems and standby power systems shall be designed to provide the required power for a minimum duration of 8 hours without being refueled or recharged, unless specified otherwise in this code.

EXCEPTION: The minimum duration of all required power loads may be reduced to 2 hours for all systems except for fire pumps that require a minimum duration of 8 hours in accordance with NFPA 20.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-2702, filed 12/12/19, effective 7/1/20.]

**(Effective until July 1, 2020)**

**WAC 51-50-2900 Chapter 29—Plumbing systems.**

**SECTION 2901—GENERAL.**

**2901.1 Scope.** The provisions of this chapter and the state plumbing code shall govern the erection, installation, *alteration*, repairs, re-location, 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.

**SECTION 2902—MINIMUM PLUMBING FACILITIES.**

**2902.1 Minimum number of fixtures.** Plumbing fixtures shall be provided in the minimum number shown in Table 2902.1. Uses 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. Plumbing fixtures need not be provided for unoccupied buildings or facilities.

**2902.1.1 Fixture calculations.** To determine the *occupant load* of each sex, the total *occupant load* shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the *occupant load* of each sex in accordance with Table 2902.1. Fractional numbers resulting from applying the fixture ratios of Table 2902.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

EXCEPTION: The total *occupant load* shall not be required to be divided in half where *approved* statistical data indicate a distribution of the sexes of other than 50 percent of each sex.

**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.

**2902.1.2 Family or assisted-use toilet and bath fixtures.** Fixtures located within family or assisted-use toilet and bathing rooms required by Section 1109.2.1 are permitted to be included in the number of required fixtures for either the male or female occupants in assembly and mercantile occupancies.

**2902.2 Separate facilities.** Where plumbing fixtures are required, separate facilities shall be provided for each sex.

EXCEPTIONS:

1. Separate facilities shall not be required for *dwelling units* and *sleeping units*.
2. Separate facilities shall not be required in structures or tenant spaces with a total *occupant load*, including both employees and customers, of 15 or less.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or less.
4. Separate facilities shall not be required in spaces primarily used for drinking or dining with a total occupant load, including both employees and customers, of 30 or fewer.

**2902.2.1 Family or assisted-use toilet facilities serving as separate facilities.** Where a building or tenant space requires a separate toilet facility for each sex and each toilet facility is required to have only one water closet, two family or assisted-use toilet facilities shall be permitted to serve as the required separate facilities. Family or assisted-use toilet facilities shall not be required to be identified for exclusive use by either sex as required by Section 2902.4.

**2902.3 Employee and public toilet facilities.** Customers, patrons and visitors shall be provided with public toilet facilities in structures and tenant spaces intended for public utilization. The number of plumbing fixtures located within the required toilet facilities shall be provided in accordance with Section 2902.1 for all users. Employees shall be provided with toilet facilities in all occupancies. Employee toilet facilities shall either be separate or combined employee and public toilet facilities.

EXCEPTION:

Public toilet facilities shall not be required in:

1. Open or enclosed parking garages where there are no parking attendants.
2. Structures and tenant spaces intended for quick transactions, including takeout, pickup and drop-off, having a public access area less than or equal to 300 square feet (28 m<sup>2</sup>).
3. Fixed guideway transit and passenger rail systems constructed in accordance with Section 3112.

**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.

**2902.3.2 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 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 distances of travel to required employee facilities in factory and industrial occupancies are permitted to exceed that required by this section, provided that the location and maximum distance of travel are *approved*.

**2902.3.3 Location of toilet facilities in malls.** In covered and open mall buildings, the required *public* and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 300 feet (91,440 mm). In mall buildings, the required facilities shall be based on total square footage (m<sup>2</sup>) within a covered mall building or within the perimeter line of an open mall building, and facilities shall be installed in each individual store or in a central toilet area located in accordance with this section. The maximum distance of travel to central toilet facilities in mall buildings shall be measured from the main entrance of any store or tenant space. In mall buildings, where employees' toilet facilities are not provided in the individual store,

the maximum distance of travel shall be measured from the employees' work area of the store or tenant space.

**2902.3.4 Pay facilities.** Where pay facilities are installed, such facilities shall be in excess of the required minimum facilities. Required facilities shall be free of charge.

**2902.3.5 Door locking.** Where a toilet room is provided for the use of multiple occupants, the egress door for the room shall not be lockable from the inside of the room. This section does not apply to family or assisted-use toilet rooms.

**2902.3.6 Prohibited toilet room location.** Toilet rooms shall not open directly into a room used for the preparation of food for service to the public.

**2902.4 Signage.** Required public facilities shall be provided with signs that designate the sex as required by Section 2902.2. Signs shall be readily visible and located near the entrance to each toilet facility. Signs for accessible toilet facilities shall comply with Section 1111.

**2902.4.1 Directional signage.** Directional signage indicating the route to the public toilet facilities shall be posted in a lobby, corridor, aisle or similar space, such that the sign can be readily seen from the main entrance to the building or tenant space.

**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 distance of travel 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.

**2902.5.4 Bottle filling stations.** Bottle filling stations shall be provided in accordance with Sections 2902.5.4.1 through 2902.5.4.3.

**2902.5.4.1 Group E occupancies.** In Group E occupancies with an occupant load over 30, a minimum of one bottle filling station shall be provided on each floor. This bottle filling station may be integral to a drinking fountain.

**2902.5.4.2 Substitution.** In all occupancies that require more than two drinking fountains per floor or secured area, *bottle filling stations* shall be permitted to be substituted for up to 50 percent of the required number of drinking fountains.

**2902.5.4.3 Accessibility.** At least one of the required bottle filling stations shall be located in accordance with Section 309 ICC A117.1.

**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.

**2902.9 Small occupancies.** Drinking fountains shall not be required for an occupant load of 15 or fewer.

**SECTION 2903—RESERVED.**

**SECTION 2904—RESERVED.**

**Table 2902.1**  
**Minimum Number of Required Plumbing Fixtures<sup>a</sup>**  
 (See Sections 2902.2 and 2902.3)

No.	Classification	Occupancy	Description	Water Closets		Lavatories		Bathubs/ Showers
				Male	Female	Male	Female	
1	Assembly	A-1 <sup>d</sup>	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200		—
		A-2 <sup>d</sup>	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 <sup>d</sup>	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		—
		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 <sup>e</sup>	Educational facilities	1 per 35	1 per 25	1 per 85	1 per 50	—

No.	Classification	Occupancy	Description	Water Closets		Lavatories		Bathubs/ Showers
				Male	Female	Male	Female	
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		Check State (UPC)
5	Institutional	I-1	Residential care	1 per 10		1 per 10		1 per 8
		I-2	Hospitals, ambulatory nursing home care recipient <sup>b</sup>	1 per room <sup>c</sup>		1 per room <sup>c</sup>		1 per 15
			Employees, other than residential care <sup>b</sup>	1 per 25		1 per 35		—
			Visitors other than residential care	1 per 75		1 per 100		—
		I-3	Prisons <sup>b</sup>	1 per cell		1 per cell		1 per 15
			Reformatories, detention centers and correctional centers <sup>b</sup>	1 per 15		1 per 15		1 per 15
			Employees <sup>b</sup>	1 per 25		1 per 35		—
I-4	Adult day care and child day care	1 per 15		1 per 15		1		
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 10		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		Check State (UPC)

- 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, except with respect to Group E occupancies the provisions of note "e" shall apply.
- Toilet facilities for employees shall be separate from facilities for inmates or care recipients.
- 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.
- The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- For Group E occupancies: The number of occupants shall be determined by using a calculation of 100 square feet gross building area per student for the minimum number of plumbing fixtures.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-2900, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-2900, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-087, § 51-50-2900, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-2900, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-2900, filed 1/20/10, effective



7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-2900, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-2900, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-2900, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-2900 Chapter 29—Plumbing systems.**

**SECTION 2901—GENERAL.**

**2901.1 Scope.** The provisions of this chapter and the state plumbing code shall govern the erection, installation, *alteration*, repairs, re-location, 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.

**2901.3 Fixed guideway transit and passenger rail systems.** In construction of a fixed guideway and passenger rail system, subject to Section 3114, public plumbing fixtures are not required.

**SECTION 2902—MINIMUM PLUMBING FACILITIES.**

**2902.1 Minimum number of fixtures.** Plumbing fixtures shall be provided in the minimum number shown in Table 2902.1. Uses 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. Plumbing fixtures need not be provided for unoccupied buildings or facilities.

**2902.1.1 Fixture calculations.** To determine the *occupant load* of each sex, the total *occupant load* shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the *occupant load* of each sex in accordance with Table 2902.1. Fractional numbers resulting from applying the fixture ratios of Table 2902.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

EXCEPTION: The total *occupant load* shall not be required to be divided in half where *approved* statistical data indicate a distribution of the sexes of other than 50 percent of each sex.

**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 in men's facilities.** Where urinals in men's facilities 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.

**2902.1.1.3 Urinals.** Where urinals are provided in gender-neutral facilities, 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 less than one quarter (25 percent) of the minimum specified. Facilities serving 26 or more persons, not less than one urinal shall be provided.

**2902.1.4 Family or assisted-use toilet and bath fixtures.** Fixtures located within family or assisted-use toilet and bathing rooms required by Section 1109.2.1 are permitted to be included in the number of required fixtures for either the male or female occupants in assembly and mercantile occupancies.

**2902.2 Separate facilities.** Where plumbing fixtures are required, separate facilities shall be provided for each sex.

EXCEPTIONS:

1. Separate facilities shall not be required for *dwelling units* and *sleeping units*.
2. Separate facilities shall not be required in structures or tenant spaces with a total *occupant load*, including both employees and customers, of 15 or less.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or less.
4. Separate facilities shall not be required in spaces primarily used for drinking or dining with a total occupant load, including both employees and customers, of 30 or fewer.
5. Separate facilities shall not be required when gender-neutral facilities are provided in accordance with Section 2902.2.2.

**2902.2.1 Family or assisted-use toilet facilities serving as separate facilities.** Where a building or tenant space requires a separate toilet facility for each sex and each toilet facility is required to have only one water closet, two family or assisted-use toilet facilities shall be permitted to serve as the required separate facilities. Family or assisted-use toilet facilities shall not be required to be identified for exclusive use by either sex as required by Section 2902.4.

**2902.2.2 Gender-neutral facilities.** Gender-neutral toilet facilities, when provided, shall be in accordance with the following:

1. There is no reduction in the number of fixtures required to be provided for male and female in the type of occupancy and in the minimum number shown in Table 2902.1.

2. Gender-neutral multiuser toilet rooms shall have water closets and urinals located in toilet compartments in accordance with ICC A117.1.

3. Gender-neutral multiuser toilet room water closet and urinal compartments shall have full-height walls and a door enclosing the fixture to ensure privacy.

4. Gender-neutral toilet room water closet and urinal compartment doors shall be securable from within the compartment.

5. Gender-neutral toilet rooms provided for the use of multiple occupants, the egress door from the room shall not be lockable from the inside of the room.

6. Compartments shall not be required in a single-occupant toilet room with a lockable door.

**2902.3 Employee and public toilet facilities.** Customers, patrons and visitors shall be provided with public toilet facilities in structures and tenant spaces intended for public utilization. The number of plumbing fixtures located within the required toilet facilities shall be provided in accordance with Section 2902.1 for all users. Employees shall be provided with toilet facilities in all occupancies. Employee toilet facilities shall either be separate or combined employee and public toilet facilities.

EXCEPTION:

Public toilet facilities shall not be required in:

1. Open or enclosed parking garages where there are no parking attendants.
2. Structures and tenant spaces intended for quick transactions, including takeout, pickup and drop-off, having a public access area less than or equal to 300 square feet (28 m<sup>2</sup>).

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

**2902.3.3 Location of toilet facilities in malls.** In covered and open mall buildings, the required *public* and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 300 feet (91,440 mm). In mall buildings, the required facilities shall be based on total square footage (m<sup>2</sup>) within a covered mall building or within the perimeter line of an open mall building, and facilities shall be installed in each individual store or in a central toilet area located in accordance with this section. The maximum distance of travel to central toilet facilities in mall buildings shall be measured from the main entrance of any store or tenant space. In mall buildings, where employees' toilet facilities are not provided in the individual store, the maximum distance of travel shall be measured from the employees' work area of the store or tenant space.

**2902.3.4 Pay facilities.** Where pay facilities are installed, such facilities shall be in excess of the required minimum facilities. Required facilities shall be free of charge.

**2902.3.5 Door locking.** Where a toilet room is provided for the use of multiple occupants, the egress door for the room shall not be lockable from the inside of the room. This section does not apply to family or assisted-use toilet rooms.

**2902.3.6 Prohibited toilet room location.** Toilet rooms shall not open directly into a room used for the preparation of food for service to the public.

**2902.4 Signage.** Required public facilities shall be provided with signs that designate the sex for separate facilities or indicate gender-neutral facilities. Signs shall be readily visible and located near the entrance to each toilet facility. Signs for accessible toilet facilities shall comply with Section 1111.

**2902.4.1 Directional signage.** Directional signage indicating the route to the public toilet facilities shall be posted in a lobby, corridor, aisle or similar space, such that the sign can be readily seen from the main entrance to the building or tenant space.

**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 distance of travel 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.

**2902.5.4 Bottle filling stations.** Bottle filling stations shall be provided in accordance with Sections 2902.5.4.1 through 2902.5.4.3.

**2902.5.4.1 Group E occupancies.** In Group E occupancies with an occupant load over 30, a minimum of one bottle filling station shall be provided on each floor. This bottle filling station may be integral to a drinking fountain.

**2902.5.4.2 Substitution.** In all occupancies that require more than two drinking fountains per floor or secured area, *bottle filling stations* shall be permitted to be substituted for up to 50 percent of the required number of drinking fountains.

**2902.5.4.3 Accessibility.** At least one of the required bottle filling stations shall be located in accordance with Section 309 ICC A117.1.

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

**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.

SECTION 2903—RESERVED.

SECTION 2904—RESERVED.

**Table 2902.1**  
**Minimum Number of Required Plumbing Fixtures<sup>a</sup>**  
(See Sections 2902.2 and 2902.3)

No.	Classification	Occupancy	Description	Water Closets		Lavatories		Bathubs/ Showers
				Male	Female	Male	Female	
1	Assembly	A-1 <sup>d</sup>	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200		—
		A-2 <sup>d</sup>	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 <sup>d</sup>	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		—

No.	Classification	Occupancy	Description	Water Closets		Lavatories		Bathubs/ Showers
				Male	Female	Male	Female	
		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 <sup>c</sup>	Educational facilities	1 per 35	1 per 25	1 per 85	1 per 50	—
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		Check State (UPC)
5	Institutional	I-1	Residential care	1 per 10		1 per 10		1 per 8
		I-2	Hospitals, ambulatory nursing home care recipient <sup>b</sup>	1 per room <sup>c</sup>		1 per room <sup>c</sup>		1 per 15
			Employees, other than residential care <sup>b</sup>	1 per 25		1 per 35		—
			Visitors other than residential care	1 per 75		1 per 100		—
		I-3	Prisons <sup>b</sup>	1 per cell		1 per cell		1 per 15
			Reformatories, detention centers and correctional centers <sup>b</sup>	1 per 15		1 per 15		1 per 15
			Employees <sup>b</sup>	1 per 25		1 per 35		—
I-4	Adult day care and child day care	1 per 15		1 per 15		1		
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 10		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		Check State (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, except with respect to Group E occupancies the provisions of note "e" shall apply.
- 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.
- e. For Group E occupancies: The number of occupants shall be determined by using a calculation of 100 square feet gross building area per student for the minimum number of plumbing fixtures.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-2900, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-2900, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-2900, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and 19.27.031. WSR 14-24-087, § 51-50-2900, filed 12/1/14, effective 5/1/15. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-2900, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-2900, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-2900, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.020, 19.27.031, 19.27.074 and chapters 19.27 and 34.05 RCW. WSR 05-01-014, § 51-50-2900, filed 12/2/04, effective 7/1/05. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-2900, filed 12/17/03, effective 7/1/04.]

***(Effective until July 1, 2020)***

**WAC 51-50-3001 Reserved.**

**Section 3002—Hoistway enclosures.**

**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. The 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) in height and shall be placed inside on both sides of the hoistway door frame.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-3001, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-3001, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-3001, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3001, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3001, filed 12/17/03, effective 7/1/04.]

***(Effective July 1, 2020)***

**WAC 51-50-3001 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-3001, filed 12/12/19, effective 7/1/20. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-3001, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-3001, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.190, 19.27.020, and chapters 19.27 and 34.05 RCW. WSR 08-01-110, § 51-50-3001, filed 12/18/07, effective 4/1/08. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3001, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3001, filed 12/17/03, effective 7/1/04.]

***(Effective until July 1, 2020)***

**WAC 51-50-30020 Section 30020—Hoistway enclosures.**

**30020.4 Elevator car to accommodate ambulance stretcher.** Where elevators are provided in buildings four or more stories above, or four or more stories below, grade plane, or in any Group R-1, R-2 or I occupancy building provided with an elevator regardless of the number of stories, not fewer than one elevator shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate an ambulance stretcher 24-inch by 84-inch (610 mm by 2,134 mm) 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) in height and shall be placed inside on both sides of the hoistway door frame.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-30020, filed 1/19/16, effective 7/1/16.]

***(Effective July 1, 2020)***

**WAC 51-50-30020 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-30020, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-30020, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-3004 Section 3004—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3004, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3004, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3004, filed 12/17/03, effective 7/1/04.]

**(Effective until July 1, 2020)**

**WAC 51-50-30050 Section 30050—Machine rooms.**

**30050.2 Venting.** Elevator machine rooms, machinery spaces that contain the driving machine, and control rooms or spaces that contain the operation or motion controller 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 make up 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 fifty-five degrees Fahrenheit and no more than ninety degrees Fahrenheit.

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:

$$\text{CFM} = \frac{\text{BTU output of elevator machine room equipment}}{1.08 \times (\text{acceptable machine room temp} - \text{make up air temp})}$$

**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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-30050, filed 1/19/16, effective 7/1/16.]

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

**(Effective July 1, 2020)**

**WAC 51-50-30050 Section 30050—Machine rooms.**

**30050.2 Temperature control.** Elevator machine rooms, machinery spaces that contain the driving machine, and control rooms or spaces that contain the operation or motion controller for elevator operation shall be provided with an independent dedicated ventilation or air-conditioning system to control the space temperature to protect against the overheating of the electrical equipment. Ventilation systems shall use outdoor make up air pathway that does not rely on transfer air from other building systems. 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 fifty-five degrees Fahrenheit and no more than ninety degrees Fahrenheit.

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:

CFM = BTU output of elevator machine room equipment/  
[1.08 x (acceptable machine room temp - make up air temp)]

The ventilation or air-conditioning system will be provided with the same source of power (normal, optional standby, legally required standby, or emergency) as the elevator equipment so that the temperature control is available at all times that the elevators have power.

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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-30050, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-30050, filed 1/19/16, effective 7/1/16.]

**Reviser's note:** The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

**(Effective until July 1, 2020)**

**WAC 51-50-3006 Section 3006—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3006, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3006, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3006, filed 12/17/03, effective 7/1/04.]

**(Effective July 1, 2020)**

**WAC 51-50-3006 Section 3006—Elevators and conveying systems.**

**3006.3 Hoistway opening protection.** Where Section 3006.2 requires protection of the elevator hoistway door opening, the protection shall be provided by one of the following:

1. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway shaft enclosure doors from each floor by fire partitions in accordance with Section 708. In addition, doors protecting openings in the elevator lobby enclosure walls shall comply with Section 716.2.2.1 as required for corridor walls. Penetrations of the enclosed elevator lobby by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1.

2. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway shaft enclosure doors from each floor by smoke partitions in accordance with Section 710 where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. In addition, doors protecting openings in the smoke partitions shall comply with Sections 710.5.2.2, 710.5.2.3, and 716.2.6.1. Penetrations of the enclosed elevator lobby by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1.

3. Additional doors shall be provided at each elevator hoistway door opening in accordance with Section 3002.6. Such door shall comply

with the smoke and draft control door assembly requirements in Section 716.2.2.1.1 when tested in accordance with UL 1784 without an artificial bottom seal.

4. The elevator hoistway shall be pressurized in accordance with Sections 909.6.3 and 909.21.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-103, § 51-50-3006, filed 12/13/19, effective 7/1/20; WSR 16-03-064, § 51-50-3006, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3006, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3006, filed 12/17/03, effective 7/1/04.]

**(Effective until July 1, 2020)**

**WAC 51-50-3009 Section 3009—Hoistway venting.**

**3009.1 Vents required.** Where required by the authority having jurisdiction over the conveyance, hoistways of elevators and dumbwaiters penetrating four or more stories shall be provided with a means for venting smoke and hot gases to the outer air in case of fire.

EXCEPTION:

Venting is not required for the following elevators and hoistways:

1. In occupancies other than Groups R-1, R-2, I-1, I-2 and similar occupancies with overnight sleeping units, where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Sidewalk elevator hoistways.
3. Elevators contained within and serving open parking garages only.
4. Elevators within individual residential dwelling units.

**3009.2 Location of vents.** Vents shall be located at the top of the hoistway and shall open either directly to the outer air or through noncombustible ducts to the outer air. Noncombustible ducts shall be permitted to pass through the elevator machine room, provided that portions of the ducts located outside the hoistway or machine room are enclosed by construction having not less than the fire-resistance rating required for the hoistway. Holes in the machine room floors for the passage of ropes, cables or other moving elevator equipment shall be limited as not to provide greater than 2 inches of clearance on all sides.

**3009.3 Area of vents.** Except as provided for in Section 3009.3.1, 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 (0.28 m<sup>2</sup>) for each elevator car, and not less than 3 1/2 percent nor less than 0.5 square feet (0.047 m<sup>3</sup>) 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.

**3009.3.1 Reduced vent area.** Where mechanical ventilation conforming to the *International Mechanical Code* is provided, a reduction in the required vent area is allowed provided that all of the following conditions are met:

1. The occupancy is not in Group R-1, R-2, I-1 or I-2 or of a similar occupancy with overnight sleeping units.
2. The vents required by Section 3009.2 do not have outside exposure.
3. The hoistway does not extend to the top of the building.

4. The hoistway and machine room exhaust fan is automatically re-activated by thermostatic means.

5. Equivalent venting of the hoistway is accomplished.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3009, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-3009 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-3009, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-3009, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-3101 Section 3101—General.**

**3101.1 Scope.** The provisions of this chapter shall govern special building construction including membrane structures, temporary structures, pedestrian walkways and tunnels, automatic vehicular gates, awnings and canopies, marquees, signs, towers and antennas, relocatable buildings, swimming pool enclosures and safety devices, and solar energy systems and fixed guideway transit and passenger rail systems.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-3101, filed 12/12/19, effective 7/1/20.]

**WAC 51-50-3102 Section 3102—Membrane structures.**

**3102.3 Type of construction.** Noncombustible membrane structures shall be classified as Type II-B construction. Noncombustible frame or cable-supported structures covered by an *approved* membrane in accordance with Section 3102.3.1 shall be classified as Type II-B construction. Heavy timber frame-supported structures covered by an *approved* membrane in accordance with Section 3102.3.1 shall be classified as Type IV-HT construction. Other membrane structures shall be classified as Type V construction.

EXCEPTION: Plastic less than 30 feet (9144 mm) above any floor used in greenhouses, where occupancy by the general public is not authorized, and for aquaculture pond covers is not required to meet the fire propagation performance criteria of Test Method 1 or 2, as appropriate, of NFPA 701.

**3102.6.1.1 Membrane.** A membrane meeting the fire propagation performance criteria of Test Method 1 or 2, as appropriate, of NFPA 701 shall be permitted to be used as the roof or as a skylight on buildings of Type II-B, III, IV-HT and V construction, provided that the membrane is not less than 20 feet (6096 mm) above any floor, balcony or gallery.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-3102, filed 12/26/18, effective 7/1/19.]

**WAC 51-50-3103 Temporary structures.**

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

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

[Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3103, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-3108 Section 3108—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-3108, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-3108, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-3109 Section 3109—Swimming pools, spas and other water recreation devices.**

**3109.1 General.** The design and construction of swimming pools, spas and other aquatic recreation facilities shall comply with the *International Swimming Pool and Spa Code*, where the facility is one of the following:

1. For the sole use of residents and invited guests at a single-family dwelling;
2. For the sole use of residents and invited guests of a duplex owned by the residents; or
3. Operated exclusively for physical therapy or rehabilitation and under the supervision of a licensed medical practitioner.

All other "water recreation facilities" as defined in RCW 70.90.110 are regulated under chapters 246-260 and 246-262 WAC.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3109, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3109, filed 12/19/06, effective 7/1/07.]

**(Effective July 1, 2020)**

**WAC 51-50-3114 Section 3114—Fixed guideway transit and passenger rail systems.** Construction of fixed guideway transit and passenger rail systems shall be in accordance with NFPA 130, standard for fixed guideway transit and passenger rail systems.

**3114.1 Means of egress.** The means of egress for fixed guideway transit and passenger rail systems shall be in accordance with NFPA 130-17.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-3114, filed 12/12/19, effective 7/1/20.]

***(Effective July 1, 2020)***

**WAC 51-50-3304 Section 3304—Site work.**

**3304.5.1 Fire watch during construction.** Where required by the fire code official, a fire watch shall be provided during nonworking hours for new construction that exceeds 40 feet (12,192 mm) in height above the lowest adjacent grade.

EXCEPTIONS:     1. New construction that is built under the IRC.  
                  2. New construction less than 5 stories and 50,000 square feet per story.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-3304, filed 12/12/19, effective 7/1/20.]

**WAC 51-50-3401 Section 3401—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3401, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-3401, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-3401, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-3404 Section 3404—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3404, filed 1/19/16, effective 7/1/16; WSR 10-03-097, § 51-50-3404, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-3410 Section 3410—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3410, filed 1/19/16, effective 7/1/16; WSR 10-03-097, amended and recodified as § 51-50-3410, filed 1/20/10, effective 7/1/10; WSR 04-01-108, § 51-50-3408, filed 12/17/03, effective 7/1/04.]

**WAC 51-50-3411 Section 3411—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-3411, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-3411, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, amended and recodified as § 51-50-3411, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-3409, filed 12/19/06, effective 7/1/07. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 04-01-108, § 51-50-3409, filed 12/17/03, effective 7/1/04.]

***(Effective until July 1, 2020)***

**WAC 51-50-3500 Chapter 35—Referenced standards.** Add the reference standards as follows:

Standard reference number	Title	Referenced in code section number
ANSI/APA PRG-320-18	Standard for Performance-Rated Cross-Laminated Timber (revised 2018)	602.4, 2303.1.4
NFPA 130	Standard for Fixed Guideway Transit and Passenger Rail Systems	3101.1, 3112

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-3500, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-3500, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-3500, filed 2/1/13, effective 7/1/13.]

**(Effective July 1, 2020)**

**WAC 51-50-3500 Chapter 35—Referenced standards.** Add the reference standards as follows:

Standard reference number	Title	Referenced in code section number
ANSI/APA PRG-320-18	Standard for Performance-Rated Cross-Laminated Timber (revised 2018)	602.4, 2303.1.4
NFPA 130	Standard for Fixed Guideway Transit and Passenger Rail Systems	3101.1, 3114

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-3500, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-3500, filed 12/26/18, effective 7/1/19; WSR 16-03-064, § 51-50-3500, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-3500, filed 2/1/13, effective 7/1/13.]

**(Effective until July 1, 2020)**

**WAC 51-50-4700 Appendix D.**

**D102.2.5 Structural fire rating.** Walls, floors, roofs and their supporting structural members shall be not less than 1 hour fire-resistance-rated construction.

- EXCEPTIONS:
1. Buildings of Type IV-HT construction.
  2. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
  3. Automobile parking structures.
  4. Buildings surrounded on all sides by a permanently open space of not less than 30 feet (9144 mm).
  5. Partitions complying with Section 603.1, Item 11.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 19-02-038, § 51-50-4700, filed 12/26/18, effective 7/1/19.]

**(Effective July 1, 2020)**

**WAC 51-50-4700 Appendix D—Fire districts.**

**D102.2.5 Structural fire rating.** Walls, floors, roofs and their supporting structural members shall be not less than 1 hour fire-resistance-rated construction.

EXCEPTIONS:     1. Buildings of Type IV-HT construction.  
                  2. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.  
                  3. Automobile parking structures.  
                  4. Buildings surrounded on all sides by a permanently open space of not less than 30 feet (9144 mm).  
                  5. Partitions complying with Section 603.1, Item 11.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-4700, filed 12/12/19, effective 7/1/20; WSR 19-02-038, § 51-50-4700, filed 12/26/18, effective 7/1/19.]

**WAC 51-50-480000 2015 International Existing Building Code.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480000, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480000, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480000, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-480000, filed 12/19/06, effective 7/1/07.]

**INTERNATIONAL EXISTING BUILDING CODE  
2015 EDITION**

**WAC 51-50-480101 Section 101—General.**

**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.

**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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480101, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480101, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480101, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-480101, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-480102 Section 102—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480102, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480102, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480102, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-480102, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-480302 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480302, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-480302, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-480305 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480305, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-480305, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-480307 Section 307—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480307, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480307, filed 1/20/10, effective 7/1/10.]

**(Effective until July 1, 2020)**

**WAC 51-50-480403 Alterations.**

**403.1 General.** Except as provided by Section 401.2 or this section, alterations to any building or structure shall comply with the requirements of the *International Building Code* for new construction. Alterations shall be such that the existing building or structure is no less conforming with the 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 1011 of the *International Building Code* where the existing space and construction does not allow a reduction in pitch or slope.
2. Handrails otherwise required to comply with Section 1011.11 of the *International Building Code* shall not be required to comply with the requirements of Section 1014.6 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).

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480403, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**



**WAC 51-50-480403 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-480403, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-480403, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-480405 Section 405—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480405, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-480405, filed 12/19/06, effective 7/1/07.]

***(Effective until July 1, 2020)***

**WAC 51-50-480407 Change of occupancy.**

**407.1 Conformance.** No change shall be made in the use or occupancy of any building unless such building is made to comply with the requirements of the *International Building Code* for the use or occupancy. Changes in use or occupancy in a building or portion thereof shall be such that the existing building is no less complying with the provisions of this code than the existing building or structure was prior to the change. 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 10 may be used to demonstrate the relative fire and life risk of the existing and the new proposed uses.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480407, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480407, filed 2/1/13, effective 7/1/13.]

***(Effective July 1, 2020)***

**WAC 51-50-480407 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-480407, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-480407, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480407, filed 2/1/13, effective 7/1/13.]

***(Effective until July 1, 2020)***

**WAC 51-50-480409 Moved structures.**

**409.1 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 51-54A WAC), the *Uniform Plumbing Code and Standards* (chapters 51-56 and 51-57 WAC), the Washington State Energy Code (chapter 51-11 WAC) and the Washington State Ventilation and Indoor Air Quality Code (chapter 51-13 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480409, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-480409 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-480409, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-480409, filed 1/19/16, effective 7/1/16.]

**(Effective until July 1, 2020)**

**WAC 51-50-480410 Accessibility for existing buildings.**

**410.6 Alterations.** A facility that is altered shall comply with the applicable provisions in Chapter 11 of the *International Building Code*, unless technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent technically feasible.

EXCEPTIONS: 1. The altered element or space is not required to be on an accessible route, unless required by Section 410.7.  
2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing facilities.  
3. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall be permitted to meet the provision for a Type B dwelling unit.  
4. Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in existing buildings and facilities undergoing alterations where the work area is 50 percent or less of the aggregate area of the building.

**410.8.10 Toilet rooms.** Where it is technically infeasible to alter existing toilet and bathing rooms to be accessible, an accessible family or assisted-use toilet or bathing room constructed in accordance with Section 1109.2.1 of the *International Building Code* is permitted. The family or assisted-use toilet or bathing room shall be located on the same floor and in the same area as the existing toilet or bathing rooms. At the inaccessible toilet and bathing rooms, directional signs indicating the location of the nearest family or assisted-use toilet or bathing room shall be provided. These directional signs shall include the International Symbol of Accessibility and sign characters shall meet the visual character requirements in accordance with ICC A117.1. The number of toilet or bathing rooms and water closets required by the Washington State Building Code is permitted to be reduced by one, in order to provide accessible features.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480410, filed 1/19/16, effective 7/1/16.]

**(Effective July 1, 2020)**

**WAC 51-50-480410 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-480410, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-480410, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-480505 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480505, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480505, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-480506 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480506, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-480506, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-480607 Section 607—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480607, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480607, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-480704 Section 704—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480704, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-480704, filed 12/19/06, effective 7/1/07.]

**(Effective until July 1, 2020)**

**WAC 51-50-480705 Accessibility.**

**705.1.5 Dining areas.** This section is not adopted.

**705.1.9 Toilet rooms.** Where it is technically infeasible to alter existing toilet and bathing rooms to be accessible, an accessible family or assisted use toilet or bathing room constructed in accordance with Section 1109.2.1 of the *International Building Code* is permitted. The

family or assisted-use toilet or bathing room shall be located on the same floor and in the same area as the existing toilet or bathing rooms. At the inaccessible toilet and bathing rooms, directional signs indicating the location of the nearest family or assisted-use toilet room or bathing room shall be provided. These directional signs shall include the International Symbol of Accessibility and sign characters shall meet the visual character requirements in accordance with ICC A117.1. The number of toilet or bathing rooms and water closets required by the Washington State Building Code is permitted to be reduced by one, in order to provide accessible features.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480705, filed 1/19/16, effective 7/1/16.]

***(Effective July 1, 2020)***

**WAC 51-50-480705 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-480705, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-480705, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-480707 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480707, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480707, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-480708 Energy conservation.**

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

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480708, filed 1/19/16, effective 7/1/16.]

**WAC 51-50-480711 Section 711—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480711, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480711, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-480804 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480804, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480804, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-480807 Section 807—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480807, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480807, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-480807, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-480808 Section 808—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480808, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-480808, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-480811 Energy conservation.**

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

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480811, filed 2/1/13, effective 7/1/13.]

*(Effective until July 1, 2020)*

**WAC 51-50-480906 Section 906—Accessibility.**

**906.1 General.** A building, facility or element that is altered shall comply with this section and Sections 705 and 806.

**906.2 Type B dwelling or sleeping units.** Where four or more Group I-1, I-2, R-1, R-2 or R-3 dwelling or sleeping units are being altered, the requirements of Section 1107 of the *International Building Code* for Type B units and Chapter 9 of the *International Building Code* for visible alarms apply only to the quantity of the spaces being altered.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480906, filed 1/19/16, effective 7/1/16.]

*(Effective July 1, 2020)*

**WAC 51-50-480906 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-480906, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-480906, filed 1/19/16, effective 7/1/16.]

*(Effective until July 1, 2020)*

**WAC 51-50-480907 Structural.**

**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 301.1.4.2. This seismic evaluation report shall not be required for buildings in compliance with the benchmark building provisions of ASCE/SEI.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-480907, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480907, filed 2/1/13, effective 7/1/13.]

**(Effective July 1, 2020)**

**WAC 51-50-480907 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-480907, filed 12/12/19, effective 7/1/20; WSR 16-03-064, § 51-50-480907, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480907, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-480908 Energy conservation.**

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

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480908, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-480912 Section 912—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-480912, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-480912, filed 12/19/06, effective 7/1/07.]

**(Effective July 1, 2020)**

**WAC 51-50-481002 Section 1002—Special use and occupancy.**

**1002.1 Compliance with the building code.** Where the character or use of an existing building or part of an existing building is changed to one of the following special use or occupancy categories as defined in the *International Building Code*, the building shall comply with all of the applicable requirements of the *International Building Code*:

1. Covered and open mall buildings;
2. Atriums;

3. Motor vehicle-related occupancies;
4. Aircraft-related occupancies;
5. Motion picture projection rooms;
6. Stages and platforms;
7. Special amusement buildings;
8. Incidental use areas;
9. Hazardous materials;
10. Ambulatory care facilities;
11. Group I-2 occupancies;
12. Group I-1, Condition 2, for licensure as an assisted living facility under chapter 388-78A WAC or residential treatment facility under chapter 246-337 WAC.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-481002, filed 12/12/19, effective 7/1/20.]

**WAC 51-50-481012 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-481012, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481012, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-481101 Chapter 11—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481101, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-481101, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-481101, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-481102 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-481102, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-481102, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-481103 Section 1103—Reserved.**

**1103.9 Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481103, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-481103, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-481104 Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481104, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-481104, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-481104, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-481105 Section 1105—Reserved.**

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481105, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-481105, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-481106 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-481106, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-481106, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-481201 Section 1201—Historic buildings—General.**

**1201.1 Scope.** It is the intent of this chapter to provide means for the preservation of historic buildings. 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.

**SECTION 1202—Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-481201, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481201, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-481201, filed 1/20/10, effective 7/1/10.]

**WAC 51-50-481203 Fire safety.**

**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.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481203, filed 2/1/13, effective 7/1/13.]



*(Effective until July 1, 2020)*

**WAC 51-50-481204 Alterations.**

**1204.1 Accessibility requirements.** The provisions of Sections 705, 806, and 906, as applicable, shall apply to facilities designated as historic structures that undergo alterations, unless technically infeasible. Where compliance with the requirements for accessible routes, entrances, or toilet rooms 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 1204.1.1 through 1204.1.4 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.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481204, filed 2/1/13, effective 7/1/13.]

*(Effective July 1, 2020)*

**WAC 51-50-481204 Change of occupancy.**

**1204.1 General.** Historic buildings shall comply with the applicable structural provisions for the work as classified in Chapter 4 or 5.

EXCEPTION: The code official shall be authorized to accept existing floors and existing live loads and to approve operational controls that limit the live load on any floor.

**1204.10 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.

**1204.14 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 1011.1 will lead to loss of historic character or historic materials in the building, the existing level of natural lighting shall be considered acceptable.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-481204, filed 12/12/19, effective 7/1/20. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481204, filed 2/1/13, effective 7/1/13.]

*(Effective until July 1, 2020)*

**WAC 51-50-481205 Change of occupancy.**

**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.

**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 1011.1 will lead

to loss of historic character or historic materials in the building, the existing level of natural lighting shall be considered acceptable.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481205, filed 2/1/13, effective 7/1/13.]

**(Effective July 1, 2020)**

**WAC 51-50-481205 Reserved.**

**1205.1 General.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 20-01-090, § 51-50-481205, filed 12/12/19, effective 7/1/20. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481205, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-481301 Relocated or moved buildings—General.**

**1301.1 Scope.** This chapter provides requirements for relocated or moved structures, including relocatable buildings as defined in Chapter 2.

**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), the Washington State Energy Code (chapter 51-11 WAC) and the Washington State Ventilation and Indoor Air Quality Code (chapter 51-13 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.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-481301, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481301, filed 2/1/13, effective 7/1/13. Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-481301, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-481301, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-481302 Requirements.**

This section is not adopted.

[Statutory Authority: RCW 19.27.031 and chapters 19.27 and 34.05 RCW. WSR 13-04-067, § 51-50-481302, filed 2/1/13, effective 7/1/13.]

**WAC 51-50-481500 Reserved.**

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 10-03-097, § 51-50-481500, filed 1/20/10, effective 7/1/10. Statutory Authority: RCW 19.27.074, 19.27.020, and chapters 70.92, 19.27, and 34.05 RCW. WSR 07-01-091, § 51-50-481500, filed 12/19/06, effective 7/1/07.]

**WAC 51-50-490000 Appendix N—Solar readiness.** The provisions contained in this appendix are not mandatory unless specifically referenced in the local adopting ordinance.

**490101.1 General.** A *solar zone* shall be provided on nonresidential buildings of any size that are 5 stories or less in height above grade plane, and shall be located on the roof of the building or on another structure elsewhere on the site. The *solar zone* shall be in accordance with Sections 490101.3 through 490101.9 and the *International Fire Code*.

EXCEPTION: A *solar zone* is not required where the solar exposure of the building's roof area is less than 75 percent of that of an unshaded area, as measured by one of the following:

- Incident solar radiation expressed in kWh/ft<sup>2</sup> per year using typical meteorological year (TMY) data;
- Annual sunlight exposure expressed in cumulative hours per year using TMY data;
- Shadow studies indicating that the roof area is more than 25 percent in shadow, on September 21 at 10:00 a.m., 11:00 a.m., 12:00 p.m., 1:00 p.m., and 2:00 p.m. solar time.

**490101.2 Definitions.** The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of the *International Building Code* for general definitions.

**SOLAR ZONE.** A clear area or areas reserved solely for current and future installation of photovoltaic or solarwater heating systems.

**490101.3 Minimum area.** The minimum area of the *solar zone* shall be determined by one of the following methods, whichever results in the smaller area:

1. 40 percent of roof area. The roof area shall be calculated as the horizontally-projected gross roof area, less the area covered by skylights, occupied roof decks and planted areas.

2. 20 percent of electrical service size. The electrical service size shall be the rated capacity of the total of all electrical services to the building. The required *solar zone* size shall be based upon 10 peak watts of PV per square foot.

EXCEPTION: Subject to the approval of the *building official*, buildings with extensive rooftop equipment that would make full compliance with this section impractical shall be permitted to reduce the size of the *solar zone* required by Section N101.3 to the maximum practicable area.

**490101.4 Contiguous area.** The *solar zone* is permitted to be comprised of smaller separated subzones. Each subzone shall be at least 5 feet wide in the narrowest dimension.

**490101.5 Obstructions.** The *solar zone* shall be free of pipes, vents, ducts, HVAC equipment, skylights and other obstructions, except those serving photovoltaics or solar water heating systems within the *solar zone*. Photovoltaics or solar water heating systems are permitted to be installed within the *solar zone*. The *solar zone* is permitted to be located above any such obstructions, provided that the racking for support of the future system is installed at the time of construction, the elevated *solar zone* does not shade other portions of the *solar zone*, and its height is permitted by the *International Building Code* and other applicable codes.

**490101.6 Shading.** The *solar zone* shall be set back from any existing or new object on the building or site that is located south, east, or west of the *solar zone* a distance at least two times the object's

height above the nearest point on the roof surface. Such objects include, but are not limited to, taller portions of the building itself, parapets, chimneys, antennas, signage, rooftop equipment, trees and roof plantings. No portion of the *solar zone* shall be located on a roof slope greater than 2:12 that faces within 45 degrees of true north.

**490101.7 Access.** Areas contiguous to the *solar zone* shall provide access pathways and provisions for emergency smoke ventilation as required by the *International Fire Code*.

**490101.8 Structural integrity.** The as-designed dead load and live load for the *solar zone* shall be clearly marked on the record drawings, and shall accommodate future photovoltaic or solar water heating arrays at an assumed dead load of 4 pounds per square foot in addition to other required live and dead loads. For photovoltaic systems, a location for future inverters shall be designated either within or adjacent to the *solar zone*, with a minimum area of 2 square feet for each 1,000 square feet of *solar zone* area, and shall accommodate an assumed dead load of 175 pounds per square foot. Where photovoltaic or solar water heating systems are installed in the *solar zone*, structural analysis shall be based upon calculated loads, not upon these assumed loads.

**490101.9 Photovoltaic or solar water heating interconnection provisions.** Buildings shall provide for the future interconnection of either a photovoltaic system in accordance with Section 490101.9.1 or a solar water heating system in accordance with Section 490101.9.2.

**490101.9.1 Photovoltaic interconnection.** A capped roof penetration sleeve shall be provided in the vicinity of the future inverter, sized to accommodate the future photovoltaic system conduit. Interconnection of the future photovoltaic system shall be provided for at the main service panel, either ahead of the service disconnecting means or at the end of the bus opposite the service disconnecting means, in one of the following forms:

a. A space for the mounting of a future overcurrent device, sized to accommodate the largest standard rated overcurrent device that is less than 20 percent of the bus rating;

b. Lugs sized to accommodate conductors with an ampacity of at least 20 percent of the bus rating, to enable the mounting of an external overcurrent device for interconnection.

The electrical construction documents shall indicate the following:

a. *Solar zone* boundaries and access pathways;

b. Location for future inverters and metering equipment; and

c. Route for future wiring between the photovoltaic panels and the inverter, and between the inverter and the main service panel.

**N101.9.2 Solar water heating interconnection.** Two capped pipe tees shall be provided upstream of the domestic water heating equipment to provide plumbing interconnections between a future solar water heating system and the domestic water heating system. Two roof penetration sleeves shall be provided in the vicinity of the *solar zone*, capable of accommodating supply and return piping for a future solar water heating system. The plumbing construction documents shall indicate the following:

a. *Solar zone* boundaries and access pathways;

b. Location for future hot water storage tanks; and

c. Route for future piping between the *solar zone* and the plumbing interconnection point, following the shortest feasible pathway.

[Statutory Authority: RCW 19.27.031 and 19.27.074. WSR 16-03-064, § 51-50-490000, filed 1/19/16, effective 7/1/16.]