

The 2018 Washington state amendments are in black.  
My recommendations to the TAG for 2021 IBC State adoption are in red.

## 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, relocation, replacement, *addition* to, use or maintenance of plumbing equipment and systems. Toilet and bathing rooms shall be constructed in accordance with Section 1210. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the state plumbing code.  
Incorporate 2021 model code language, with state amendment to refer to “state plumbing code” and delete references to codes not adopted

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

Retain amendment, model code does not contain this section.

**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.

Retain amendment, model code does not contain this section.

#### 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.

Retain amendment, model code does not address the state language.

**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.

Strike amendment. Model code language includes all of state amendment, plus adds two new exceptions.

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

Retain amendment, model code does not address the state language.

**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.

Retain amendment, model code does not address the state language.

**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.

Retain amendment, model code does not address the state language.

**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.

Strike amendment. Model code language addresses (and expands) the state language in Section 2902.1.2.

**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.

Retain but modify state amendment. The first three exceptions in model code and amendment are identical. The model code does not include the state exception #4. The new model code exception #5 is like the state amendment exception #5, so correlation of language may be desired (state uses "gender-neutral" and model code uses "single-user"). The model code added a new Exception #6, that may tie into the state amendment #5 (language from model code exception may be incorporated into the state amendment).

**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.

Strike amendment. Model code language includes all of state amendment.

**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.

Retain aspects of state amendment but consider reviewing language of model code Section 2902.1.2 for correlation or integration.

**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.

Retain state amendment for Exception #3. Consider reviewing state amendment code language for body of section. It seems very similar to model code, but slightly different wording that does not appear to affect the intent.

*[Note section numbers of model code and state amendments differs beginning here]*

**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*.

Retain state amendment for “*or conveniently in a building adjacent thereto on the same property*”. However, the model code adds two exceptions that address our state exception, and adds another one. I would recommend we modify the amendment

Exception language to reflect the model code language. [Note Section 2902.3.3 in model code]

**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.

Strike amendment. Model code language appears to include all of state amendment. [Note Section 2902.3.4 in model code]

**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.

Strike amendment. Model code language appears to include all of state amendment. [Note Section 2902.3.5 in model code]

**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.

Strike amendment. Model code language appears to include all of state amendment. [Note Section 2902.3.6 in model code]

**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.

Strike amendment. Model code language appears to include all of state amendment. [Note Section 2902.3.2 in model code]

**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.

Retain, but modify state amendment.

-Add model code language: "*that designate the sex for separate facilities as required by Section 2902.2...*"

-Retain state language: "...or indicate gender-neutral facilities." \*Note, see also discussion in 2902.2 regarding terms "single-user" v. "gender neutral".

-Update code reference to Section 1112.

**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.

Strike amendment. Model code language appears to include all of state amendment.

*[Note my recommendation would be to review the layout of state amends Sections 2902.5, not for content, but for format. Also need to address the correlation of state amendment 2902.5.1 and model code 2902.6. Further, consider a reference to Section 1109.5]*

**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.

Retain state amendment for *“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.

Retain amendment, clarify correlation with model code Section 2902.6 Small Occupancies which reads *“Drinking fountains shall not be required for an occupant load of 15 or fewer.”* Note also, the model code includes this as a column in Table 2902.1. I would recommend this approach be mimicked, or at least a pointer from that table to this section.

**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.

Retain amendment, model code does not contain this section.

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

Retain amendment, model code does not contain this section.

**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.

Retain amendment, model code does not contain this section.

**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.

Retain amendment, model code does not contain this section.

**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.

Retain amendment, model code does not contain this section.

**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.

Retain amendment, model code does not contain this section.

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

The model code includes this within the “other” column in the Table 2902.1. I would recommend this requirement be incorporated there instead. [Note, model code section 2902.6 is different, it refers to drinking fountain exception for small occupancies]

**2902.7 Water.** Each required sink, lavatory, bathtub and shower stall shall be equipped with hot and cold running water necessary for its normal operation.

Retain amendment, model code does not contain this section. [Note, model code added a Section 2902.7, so if state adopts that section, this will need to be renumbered]

SECTION 2903—RESERVED.  
SECTION 2904—RESERVED.

**Table 2902.1**  
**Minimum Number of Required Plumbing Fixturesa**  
(See Sections 2902.2 and 2902.3)

No.	Classification	Occupancy	Description	Water Closets		Lavatories		Bathtubs/ Showers
				Male	Female	Male	Female	
1	Assembly	A-1d	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200		—
		A-2d	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-3d	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	Ee	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 recipients	1 per roomc		1 per roomc		1 per 15
			Employees, other than residential careb	1 per 25		1 per 35		—
			Visitors other than residential care	1 per 75		1 per 100		—
		I-3	Prisonsb	1 per cell		1 per cell		1 per 15
			Reformatories, detention centers and correctional centersb	1 per 15		1 per 15		1 per 15
		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.

-The state amends includes references to R-4, which is not adopted per WAC 51-50-0310. Consider omitting from table.

- The model code the requirement for a kitchen sink in dwellings within the "other" column in the Table 2902.1. I would recommend this requirement be incorporated in the Table instead of the current state amendment section 2902.6, or at least a pointer be provided.

- The model code requirement for drinking fountains is provided in a column in Table 2902.1. I would recommend these requirements be incorporated in the Table instead of the current state amendment section 2902.5.X, or at least a pointer be provided.



## **Added sections in 2021 IBC Model Code**

[P]2902.7 Service sink location.

Service sinks shall not be required to be located in individual tenant spaces in a covered mall provided that service sinks are located within a distance of travel of 300 feet (91 m) of the most remote location in the tenant space and not more than one story above or below the tenant space. Service sinks shall be located on an *accessible route*.

The model code has minimum service sink requirements within the “other” column in the Table 2902.1. If the state has chosen not to adopt those, it seems this section should not be adopted as well.

[P]2903

### INSTALLATION OF FIXTURES

[P]2903.1 Setting.

Fixtures shall be set level and in proper alignment with reference to adjacent walls.

**Note this correlates to 2021 UPC Section 402.5, which the state amends.**

[P]2903.1.1 Water closets, urinals, lavatories and bidets.

A water closet, urinal, lavatory or bidet shall not be set closer than 15 inches (381 mm) from its center to any side wall, partition, vanity or other obstruction. Where partitions or other obstructions do not separate adjacent fixtures, fixtures shall not be set closer than 30 inches (762 mm) center to center between adjacent fixtures. There shall be not less than a 21-inch (533 mm) clearance in front of a water closet, urinal, lavatory or bidet to any wall, fixture or door. Water closet compartments shall be not less than 30 inches (762 mm) in width and not less than 60 inches (1524 mm) in depth for floor-mounted water closets and not less than 30 inches (762 mm) in width and 56 inches (1422 mm) in depth for wall-hung water closets.

**Exception:** An accessible children's water closet shall be set not closer than 12 inches (305 mm) from its center to the required partition or to the wall on one side.

**Note this correlates to 2021 UPC Section 402.5, which the state amends. That amendment may now be unnecessary.**

**Note this exception correlates to 2017 ICC A117.1 Section 604.11.2.**

[P]2903.1.2 Public lavatories.

In employee and public toilet rooms, the required lavatory shall be located in the same room as the required water closet.

[P]2903.1.3 Location of fixtures and piping.

Piping, fixtures or equipment shall not be located in such a manner as to interfere with the normal operation of windows, doors or other means of egress openings.

[P]2903.1.4 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.

**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 housing areas.

**Note this correlates to 2021 IBC Section 1210.3.1.**

[P]2903.1.5 Urinal partitions.

Each urinal utilized by the public or employees shall occupy a separate area with walls or partitions to provide privacy. The horizontal dimension between walls or partitions at each urinal shall be not less than 30 inches (762 mm). The walls or partitions shall begin at a height not greater 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 backwall surface, whichever is greater.

**Exceptions:**

1. Urinal partitions shall not be required in a single-occupant or family/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.

**Note this correlates to 2021 IBC Section 1210.3.2.**