

BCAC ADM Item 33

Delete entire appendix:

Reason: This is a jurisdictional decision. This is not something that should be in the code, even as guidance material. Definitely not as an adoptable appendix.

Cost Impact: No change. This appendix does not include any construction requirements.

APPENDIX A

EMPLOYEE QUALIFICATIONS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

User notes:

About this appendix: Appendix A provides optional criteria for the qualifications for jurisdictions to consider when hiring personnel to enforce the building code. Criteria for the building official, plan reviewers and inspectors are provided.

Code development reminder: Code change proposals to this appendix will be considered by the Administrative Code Development Committee during the 2022 (Group B) Code Development Cycle.

SECTION A101 BUILDING OFFICIAL QUALIFICATIONS

[A] **A101.1 Building official.** The *building official* shall have not fewer than 10 years' experience or equivalent as an architect, engineer, inspector, contractor or superintendent of construction, or any combination of these, 5 years of which shall have been supervisory experience. The *building official* should be certified as a *building official* through a recognized certification program. The building official shall be appointed or hired by the applicable governing authority.

[A] **A101.2 Chief inspector.** The *building official* can designate supervisors to administer the provisions of this code and the *International Mechanical, Plumbing and Fuel Gas Codes*. Each supervisor shall have not fewer than 10 years experience or equivalent as an architect, engineer, inspector, contractor or superintendent of construction, or any combination of these, 5 years of which shall have been in a supervisory capacity. They shall be certified through a recognized certification program for the appropriate trade.

[A] **A101.3 Inspector and plans examiner.** The *building official* shall appoint or hire such number of officers, inspectors, assistants and other employees as shall be authorized by the jurisdiction. A person who has fewer than 5 years of experience as a contractor, engineer, architect, or as a superintendent, foreman or competent mechanic in charge of construction shall not be appointed or hired as inspector of construction or plans examiner. The inspector or plans examiner shall be certified through a recognized certification program for the appropriate trade.

[A] **A101.4 Termination of employment.** Employees in the position of *building official*, chief inspector or inspector shall not be removed from office except for cause after full opportunity has been given to be heard on specific charges before such applicable governing authority.

SECTION A102 REFERENCED STANDARDS

[A] **A102.1 General.** See Table A102.1 for standards that are referenced in various sections of this appendix. Standards are listed by the standard identification with the effective date, standard title, and the section or sections of this appendix that reference the standard.

**TABLE A102.1
REFERENCED STANDARDS**

STANDARD ACRONYM	STANDARD NAME	SECTIONS HEREIN REFERENCED
IBC—21	<i>International Building Code</i>	A101.2
IMC—21	<i>International Mechanical Code</i>	A101.2
IPC—21	<i>International Plumbing Code</i>	A101.2
IFGC—21	<i>International Fuel Gas Code</i>	A101.2

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 cumulative 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.

(F75-21 Part 1 AS)

**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 Automatic Sprinkler System (feet)		With Sprinkler System (feet)		
		Occupant Load		S	S13R	S13D
		OL ≤ 30	OL > 30			
A ^c , E, M	49	75	75	75 ^a	NP	NP
B	49	100	75	100 ^a	NP	NP
F	49	75	75	100 ^a	NP	NP
H-1, H-2, H-3	3	NP	NP	25 ^b	NP	NP
H-4, H-5	10	NP	NP	75 ^b	NP	NP
I-1, I-2 ^d , I-4	10	NP	NP	75 ^a	NP	NP
I-3	10	NP	NP	100 ^a	NP	NP
R-1	10	NP	NP	75 ^a	NP	NP
R-2	20	NP	NP	125 ^a	125	125
R-3 ^e	20	NP	NP	125 ^{a-g}	125	125
R-4 ^e	20	NP	NP	125 ^{a-g}	125	75
S ^f	29	100	75	100 ^a	NP	NP
U	49	100	75	75 ^a	NP	NP

For SI: 1 foot = 304.8 mm.

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; S13D = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Sections 903.2.8 and 903.3.1.3.

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 1030.8.

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 and Group R-4 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.~~

~~**1006.2.2.6 Groups R-3 and R-4.** Where Group R-3 occupancies are permitted by Section 903.2.8 to be protected by an automatic sprinkler system installed in accordance with Section 903.3.1.3, the exit access travel distance for Group R-3 shall be not more than 125 feet (38 100 mm). Where Group R-4 occupancies are permitted by Section 903.2.8 to be protected by an automatic sprinkler system installed in accordance with Section 903.3.1.3, the exit access travel distance for Group R-4 shall be not more than 75 feet (22 860 mm).~~

Reason: The intent of this group of proposal is to make the tables in Chapter 8 and 10 consistent with the revisions to Table 504.3, 504.4, 506.2 – using S13, S13R, S13D and NP for sprinkler requirement. This would clarify what happens when an NFPA 13D sprinkler system is used. This is not intent to change current allowances; just to clarify what requirements are applicable for an NFPA13D system.

Discussion during the BCAC calls has indicated that it is needed to identifying specific code sections so that everyone has the same understanding.

Group R-4 requirements do not always have to be stated as Section 310.5 states “Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code.” However, since a lot of people miss that, we are including R-4 in the proposed applicable footnotes.

Townhouses are defined as attached dwelling units that extend from foundation to grade and are open on at least two sides. If a townhouse is 3 stories or less, it can choose to comply with the IBC or IRC (Section 101.2). The IRC Section P2904 is similar to an NFPA 13D system. If the IBC is used, townhouses subdivide by firewalls into 1 or 2 units per building is a Group R-3 (Section 310.4) and townhouses subdivided by fire partitions (Section 420.2) are a Group R-2 (Section 310.3). This is important to clarify because all townhouses can use a 13D sprinkler system: Section 903.2.8 references 903.3, and 903.1.3.3 specifically stating that “Automatic sprinkler systems installed in ... and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D.” To make this obvious in the tables, a reference to 903.2.8 and 903.1.3.3 are added in the footnote.

Specifics for this change –

- adds the S13, S13R, S13D and NS in the table titles and footnotes with the section references for sprinklers.
- columns are added for each of the three sprinkler systems.
- Footnote a with the sprinkler reference is redundant and deleted.
- The requirements in Section 1006.2.2.6 are moved into the table, so footnote e and Section 1006.2.2.6 are redundant and deleted.

Cost impact: None. This is a clarification with no change in requirements.

**TABLE 803.13
INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY^k**

GROUP	SPRINKLERED ^l – S, S13R, S13D			NONSPRINKLERED- NS		
	Interior exit stairways and ramps and exit passageways ^{a, b}	Corridors and enclosure for exit access stairways and ramps	Rooms and enclosed spaces ^c	Interior exit stairways and ramps and exit passageways ^{a, b}	Corridors and enclosure for exit access stairways and ramps	Rooms and enclosed spaces ^c
A-1 & A-2	B	B	C	A	A ^d	B ^e
A-3 ^f , A-4, A-5	B	B	C	A	A ^d	C
B, E, M, R-1	B	C ^m	C	A	B	C
R-4	B	C	C	A	B	B
F	C	C	C	B	C	C
H	B	B	C ^g	A	A	B
I-1	B	C	C	A	B	B
I-2	B	B	B ^{h, i}	A	A	B
I-3	A	A ^j	C	A	A	B
I-4	B	B	B ^{h, i}	A	A	B
R-2	C	C	C	B	B	C
R-3	C	C	C	C	C	C
S	C	C	C	B	B	C
U	No restrictions			No restrictions		

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m².

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; S13D = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Sections 903.2.8 and 903.3.1.3.

- a. Class C interior finish materials shall be permitted for wainscotting or paneling of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fireblocked as required by Section 803.15.1.
- b. In other than Group I-3 occupancies in buildings less than three stories above grade plane, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted in interior exit stairways and ramps.
- c. Requirements for rooms and enclosed spaces shall be based on spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered to be enclosing spaces and the rooms or spaces on both sides shall be considered to be one room or space. In determining the applicable requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.
- d. Lobby areas in Group A-1, A-2 and A-3 occupancies shall be not less than Class B materials.
- e. Class C interior finish materials shall be permitted in places of assembly with an occupant load of 300 persons or less.
- f. For places of religious worship, wood used for ornamental purposes, trusses, paneling or chancel furnishing shall be permitted.
- g. Class B material is required where the building exceeds two stories.
- h. Class C interior finish materials shall be permitted in administrative spaces.
- i. Class C interior finish materials shall be permitted in rooms with a capacity of four persons or less.
- j. Class B materials shall be permitted as wainscotting extending not more than 48 inches above the finished floor in corridors and exit access stairways and ramps.
- k. Finish materials as provided for in other sections of this code.
- ~~l. Applies when protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.~~
- m. Corridors in ambulatory care facilities shall be provided with Class A or B materials.

Reason: The intent of this group of proposal is to make the tables in Chapter 8 and 10 consistent with the revisions to Table 504.3, 504.4, 506.2 – using S13, S13R, S13D and NP for sprinkler requirement. This would clarify what happens when an NFPA 13D sprinkler system is used. This is not intent to change current allowances; just to clarify what requirements are applicable for an NFPA13D system.

Discussion during the BCAC calls has indicated that it is needed to identifying specific code sections so that everyone has the same understanding.

Group R-4 requirements do not always have to be stated as Section 310.5 states “Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code.” However, since a lot of people miss that, we are including R-4 in the proposed applicable footnotes.

Townhouses are defined as attached dwelling units that extend from foundation to grade and are open on at least two sides. If a townhouse is 3 stories or less, it can choose to comply with the IBC or IRC (Section 101.2). The IRC Section P2904 is similar to an NFPA 13D system. If the IBC is used, townhouses subdivide by firewalls into 1 or 2 units per building is a Group R-3 (Section 310.4) and townhouses subdivided by fire partitions (Section 420.2) are a Group R-2 (Section 310.3). This is important to clarify because all townhouses can use a 13D sprinkler system: Section 903.2.8 references 903.3, and 903.1.3.3 specifically stating that “Automatic sprinkler systems installed in ... and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D.” To make this obvious in the tables, a reference to 903.2.8 and 903.1.3.3 are added in the footnote.

Specifics for this change –

- adds the S13, S13R, S13D and NS in the table titles and footnotes with the section references for sprinklers.
- Footnote 1 with the sprinkler reference is redundant and deleted.

Cost impact: None. This is a clarification of requirements for Group R where an NFPA13D system is permitted.

Date 11-29-2023

(E24-18 AS)

1006.3.4 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 do not exceed the values in Table **1006.3.4 (1) or 1006.3.4 (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. **Group 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*.

(F75-21 Part 1 AS)

**TABLE 1020.2
CORRIDOR FIRE-RESISTANCE RATING**

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)		
		Without automatic sprinkler system	With automatic sprinkler system	With automatic sprinkler system S13D
H-1, H-2, H-3	All	Not Permitted NP	1 ^c	NP
H-4, H-5	Greater than 30	Not Permitted NP	1 ^c	NP
A, B, E, F, M, S, U	Greater than 30	1	0	NP
R	Greater than 10	Not Permitted NP	0.5 ^e /1 ^d	1 ^c
I-2 ^a	All	Not Permitted NP	0	NP
I-1, I-3	All	Not Permitted NP	1 ^{b, c}	NP
I-4	All	1	0	NP

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; S13D = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.3.

- a. For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3.
- b. For a reduction in the *fire-resistance rating* for occupancies in Group I-3, see Section 408.8.
- c. Buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.
- d. Group R-3 and R-4 buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.3. See Section 903.2.8 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.3.
- e. The corridor fire resistance rating shall only apply to exit access corridors outside of the unit in a Group R-3 and R-4 occupancy located in a mixed occupancy building.

Reason: The intent of this group of proposal is to make the tables in Chapter 8 and 10 consistent with the revisions to Table 504.3, 504.4, 506.2 – using S13, S13R, S13D and NP for sprinkler requirement. This would clarify what happens when an

NFPA 13D sprinkler system is used. This is not intent to change current allowances; just to clarify what requirements are applicable for an NFPA13D system.

Discussion during the BCAC calls has indicated that it is needed to identifying specific code sections so that everyone has the same understanding.

Group R-4 requirements do not always have to be stated as Section 310.5 states “Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code.” However, since a lot of people miss that, we are including R-4 in the proposed applicable footnotes.

Townhouses are defined as attached dwelling units that extend from foundation to grade and are open on at least two sides. If a townhouse is 3 stories or less, it can choose to comply with the IBC or IRC (Section 101.2). The IRC Section P2904 is similar to an NFPA 13D system. If the IBC is used, townhouses subdivide by firewalls into 1 or 2 units per building is a Group R-3 (Section 310.4) and townhouses subdivided by fire partitions (Section 420.2) are a Group R-2 (Section 310.3). This is important to clarify because all townhouses can use a 13D sprinkler system: Section 903.2.8 references 903.3, and 903.1.3.3 specifically stating that “Automatic sprinkler systems installed in ... and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D.” To make this obvious in the tables, a reference to 903.2.8 and 903.1.3.3 are added in the footnote.

Specifics for this change –

- adds the S13, S13R, S13D and NS in the table titles and footnotes with the section references for sprinklers.
- add column for NFPA13D.
- Footnote c and d are redundant and deleted.
- The new footnote is added to coordinate with the single exit allowance in Section 1006.3.4 Item 4.
- “NP” instead of “not permitted” is for consistency in table styles.

Cost impact: None. This is a clarification with no change in requirements.

Date 11-29-2023

(E24-18 AS)

1006.3.4 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 do not exceed the values in Table **1006.3.4 (1)** or **1006.3.4 (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. **Group 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*.

(E24-18 AS) TABLE 1006.3.4 (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 ^{a, b}	4 dwelling units	125 feet
Fourth story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 3048 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, **903.3.1.3** and provided with emergency escape and rescue openings in accordance with Section **1031**.

b. This table is used for R-2 occupancies consisting of dwelling units. For R-2 occupancies consisting of sleeping units, use Table **1006.3.4 (2)**.

(E24-18 AS) TABLE 1006.3.4 (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 ^b , E F ^b , M, U	49	75
	H-2, H-3	3	25
	H-4, H-5, I, R-1, R-2 ^{a, c}	10	75
	S ^{b, d}	29	75
Second story above grade plane	B, F, M, S ^d	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 **or 903.3.1.3** and provided with emergency escape and rescue openings in accordance with Section **1031**.

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 1006.3.4 (1).
d. The length of exit access travel distance in a Group S-2 open parking garage shall be not more than 100 feet.

Reason: A townhouse can be a Group R-2 and be permitted to use an NFPA13D sprinkler system. Footnote a of Table 1006.3.4(1) and 1006.3.4(2) should include a requirement for townhouses with a single exit to have emergency escape and rescue openings consistent with Group R-2 with an NFPA 13 or NFPA 13R systems.

Cost impact: None. This is a clarification with no change in requirements.

(E24-18 AS)

1006.3.4 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 do not exceed the values in Table **1006.3.4 (1) or 1006.3.4 (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. **Group 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*.

1017.2 Limitations. *Exit access* travel distance shall not exceed the values given in Table 1017.2.

(F75-21 AS; E86-21 D/ASPC1)

**TABLE 1017.2
EXIT ACCESS TRAVEL DISTANCE^a**

OCCUPANCY	WITHOUT AUTOMATIC SPRINKLER SYSTEM (feet)	WITH AUTOMATIC SPRINKLER SYSTEM <u>S, S13R</u> (feet)	WITH AUTOMATIC SPRINKLER SYSTEM <u>S13D</u> (feet)
A, E, F-1, M, R , S-1	200 ^e	250 ^b	<u>NP</u>
<u>R-1</u>	<u>NP</u>	<u>250</u>	<u>NP</u>
<u>R-2, R-3^f, R-4^f</u>	<u>NP</u>	<u>250</u>	<u>200</u>
I-1	Not Permitted <u>NP</u>	250 ^b	<u>NP</u>
B	200	300 ^e	<u>NP</u>
F-2, S-2, U	300	400 ^e	<u>NP</u>
H-1	Not Permitted <u>NP</u>	75 ^d	<u>NP</u>
H-2	Not Permitted <u>NP</u>	100 ^d	<u>NP</u>
H-3	Not Permitted <u>NP</u>	150 ^d	<u>NP</u>
H-4	Not Permitted <u>NP</u>	175 ^d	<u>NP</u>
H-5	Not Permitted <u>NP</u>	200 ^e	<u>NP</u>
I-2, I-3	Not Permitted <u>NP</u>	200 ^e	<u>NP</u>
I-4	150	200 ^e	<u>NP</u>

For SI: 1 foot = 304.8 mm. **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; S13D = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Sections 903.2.8 and 903.3.1.3.

a. See the following sections for modifications to *exit access* travel distance requirements:

- Section 402.8: For the distance limitation in malls.
- Section 407.4: For the distance limitation in Group I-2.
- Sections 408.6.1 and 408.8.1: For the distance limitations in Group I-3.
- Section 411.2: For the distance limitation in special amusement areas.
- Section 412.6: For the distance limitations in aircraft manufacturing facilities.
- Section 1006.2.2.2: For the distance limitation in refrigeration machinery rooms.

Section 1006.2.2.3: For the distance limitation in refrigerated rooms and spaces.

Section 1006.3.4: For buildings with one exit.

Section 1017.2.2: For increased distance limitation in Groups F-1 and S-1.

[Section 1017.2.3: For increased distance limitation in Group H-5.](#)

Section 1030.7: For increased limitation in assembly seating.

Section 3103.4: For temporary structures.

Section 3104.9: For *pedestrian walkways*.

~~b. 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.~~

~~c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.~~

d. Group H occupancies equipped throughout with an automatic sprinkler system in accordance with Section 903.2.5.1.

~~e. Group R-3 and R-4 buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.3. See Section 903.2.8 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.3.~~

~~f. The exit access travel distance shall only apply in a Group R-3 and R-4 occupancy located in a mixed occupancy building.~~

Reason: The intent of this group of proposal is to make the tables in Chapter 8 and 10 consistent with the revisions to Table 504.3, 504.4, 506.2 – using S13, S13R, S13D and NP for sprinkler requirement. This would clarify what happens when an NFPA 13D sprinkler system is used. This is not intent to change current allowances; just to clarify what requirements are applicable for an NFPA13D system.

Discussion during the BCAC calls has indicated that it is needed to identifying specific code sections so that everyone has the same understanding.

Group R-4 requirements do not always have to be stated as Section 310.5 states “Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code.” However, since a lot of people miss that, we are including R-4 in the proposed applicable footnotes.

Townhouses are defined as attached dwelling units that extend from foundation to grade and are open on at least two sides. If a townhouse is 3 stories or less, it can choose to comply with the IBC or IRC (Section 101.2). The IRC Section P2904 is similar to an NFPA 13D system. If the IBC is used, townhouses subdivide by firewalls into 1 or 2 units per building is a Group R-3 (Section 310.4) and townhouses subdivided by fire partitions (Section 420.2) are a Group R-2 (Section 310.3). This is important to clarify because all townhouses can use a 13D sprinkler system: Section 903.2.8 references 903.3, and 903.1.3.3 specifically stating that “Automatic sprinkler systems installed in ... and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D.” To make this obvious in the tables, a reference to 903.2.8 and 903.1.3.3 are added in the footnote.

Specifics for this change –

- adds the S13, S13R, S13D and NS in the table titles and footnotes with the section references for sprinklers.
- add columns for NFPA13D and rows to separate out Group R requirements.
- Footnotes b, c and e are redundant and deleted.
- The new footnote is added to coordinate with the single exit allowance in Section 1006.3.4 Item 4.
- “NP” instead of “not permitted” is for consistency in table styles.

Cost impact: None. This is a clarification with no change in requirements.

BCAC Egress Item 21 Breezeway 11-29-2023

Question is where the wall requirements for the stairways stop? I don't think they need the 10 shown in this picture. Question is on Section 1027.6 Exception 3 if you remove the end wall of the stairway that is towards the breezeway.

Another question was about what you did at the bottom if the stairway was shoved into the building.

1027.6 Exterior exit stairway and ramp ~~protection~~ separation. *Exterior exit stairways and ramps* shall be separated from the interior of the building as required in Section 1023.2. Openings shall be limited to those necessary for egress from normally occupied spaces. Where a vertical plane projecting from the edge of an *exterior exit stairway* or *ramp* and landings is exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the *exterior wall* shall be rated in accordance with Section 1023.7. Where the exterior exit stairway is recessed into the building, the separation for the exterior exit stairway or ramp shall extend to the exterior walls.

Exceptions:

1. Separation from the interior of the building is not required for occupancies, other than those in Group R-1 or R-2, in buildings that are not more than two stories above grade plane where a *level of exit discharge* serving such occupancies is the *first story above grade plane*.
2. Separation from the interior of the building is not required where the *exterior exit stairway* or *ramp* is served by an *exterior exit ramp* or balcony that connects two remote exterior exit *stairways* or other *approved exits* with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be not less than 50 percent of the height of the enclosing wall, with the top of the openings not less than 7 feet (2134 mm) above the top of the balcony.
3. Separation from the open-ended *corridor* of the building is not required for *exterior exit stairways* or *ramps*, provided that Items 3.1 through 3.5 are met:
 - 3.1. The building, including open-ended *corridors*, and *stairways* and *ramps*, shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
 - 3.2. The open-ended *corridors* comply with Section 1020.
 - 3.3. The open-ended *corridors* are connected on each end to an *exterior exit stairway* or *ramp* complying with Section 1027. At the location where the exterior exit stairway or ramp is open to an open-ended corridor, the separation from the interior of the building shall extend to the extent of the required landing.
 - 3.4. The *exterior walls* and openings adjacent to the *exterior exit stairway* or *ramp* comply with Section 1023.7.
 - 3.5. At any location in an open-ended *corridor* where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m²) or an *exterior stairway* or *ramp* shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.
4. In Group R-3 occupancies not more than four stories in height, *exterior exit stairways* and *ramps* serving individual *dwelling units* are not required to be separated from the interior of the building where the *exterior exit stairway* or *ramp* discharges directly to grade.

Reason: This proposal has two purposes:

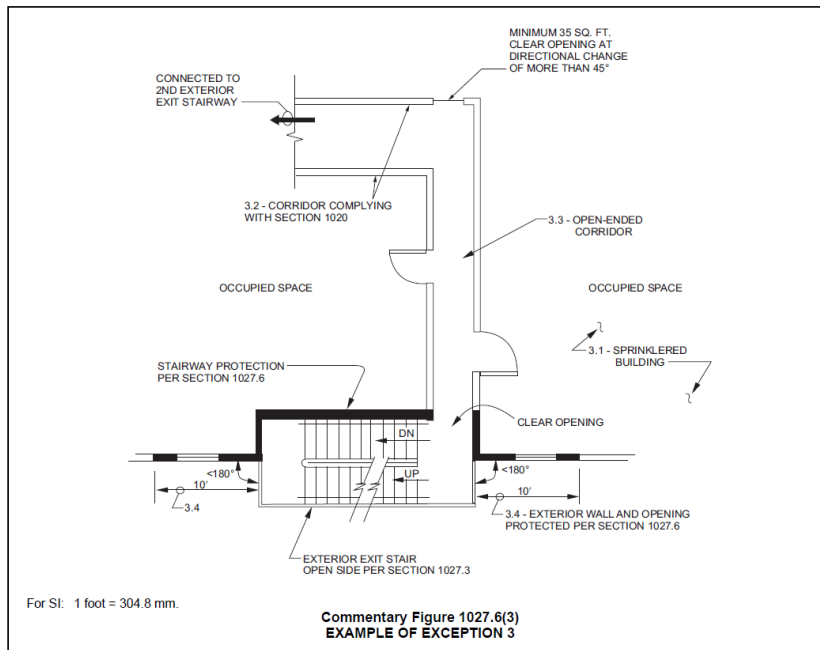
1. Address the rating/separation requirements for exterior exit stairways that are open to a breezeway

2. To address where a stairway may be recessed into the footprint of the building.

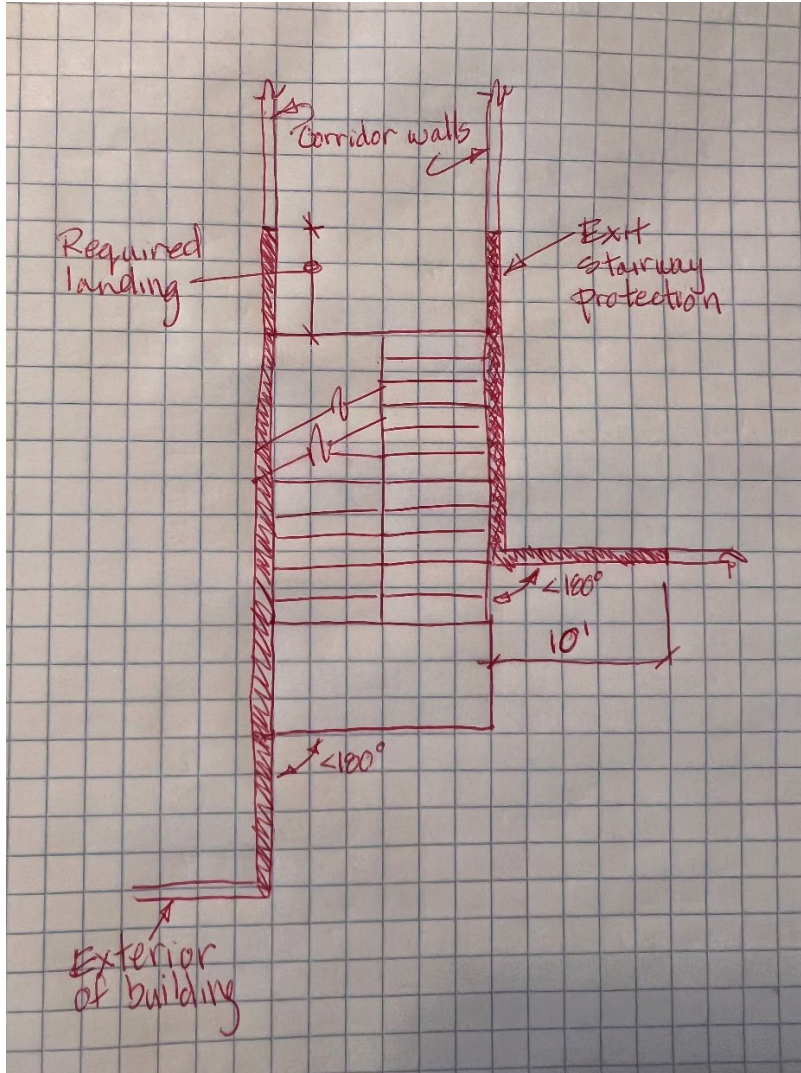
There has been a misinterpretation that the walls on the open-ended corridor are exterior walls in accordance with Item 3.4 instead of the corridor in accordance with 3.2. This can lead to unnecessary ratings on the corridor walls. The added sentence in 3.3 clarifies this.

The sentence added in the base paragraph is to address a situation where the exterior exit stairway is completely recessed into the building. It is not clear if the walls between the exterior exit stairway and the exterior of the building is an exterior wall. However, BCAC felt the stairway does need to be available for people to leave the building, so the protection needs to be available.

The following is an existing figure in IBC Commentary.



The illustration below gives an orientation of a rotated stair that is partially within the building, illustrating where the rating would stop at the extent of the landing as well as illustrating how the requirement for the ten foot of exterior wall is required to be rated when less than 180 degrees.



Cost Impact: None. This is a clarification of existing provisions for this configuration.

2HR fire barrier wall at both sides of stair for 4 story Bldg



My question: Are walls and opening within 10' of the stair required to be rated as 1023.7?"

BCAC Egress Item 33 ISPSC occupant load

Revise as follows:

**TABLE 1004.5
MAXIMUM FLOOR
AREA ALLOWANCES
PER OCCUPANT**

Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
<u>Swimming pools (within the water)</u>	
<u>Swimming pool diving areas and catch pool areas</u>	<u>300 gross</u>
<u>Swimming pool areas with water depth exceeding 5 feet</u>	<u>200 gross</u>
<u>Spas</u>	<u>10 gross</u>
<u>All other swimming pool areas</u>	<u>20 gross</u>
<u>Swimming pool and spa decks</u>	<u>30 net</u>

Reason:

- IBC Table 1004.5 for minimum occupancy load is proposed for modification so the pool area is assigned more people while the deck is assigned fewer. For most pool designs the minimum occupant calculation will be the same, but this reduces a perverse incentive to minimize deck area that exists in the current code.
- All of the categories added to IBC Table 1004.5 are already found in the ISPSC, or Model Aquatic Health Code, or Chapter 11 of the IBC, except the category "Swimming Pool Areas with water depth exceeding 5 feet (1.5 m)." Pool users do not tend to congregate in these areas, and most pools do not have such areas. A requirement to have such areas roped off is under consideration. When not used for diving, such areas are most typically used for lap swimming. A lap lane is often 2.5 meters wide and 25 meters long. The 200 gross factor proposed for such areas computes to three occupants per lane, which is conservative.
- Pools were crossed out on Table 2902.2 of the IBC to allow for the new row for indoor and outdoor Public Pools, Spas and Aquatic Recreation Facilities. Indoor and outdoor pools should have equal restroom requirements.
- With the current urinal substitution allowance there is no need to call out any differences in toilets or urinal. This allows the design professional of record to choose a to substitute a urinal when they decide to.
- Please review the footnote for approval. The exception for Class C pools is reduced to only apply to close-in dwelling units and will not add to construction costs for large amenity centers that are far from dwelling units, however, a few states already enforce similar requirements. This is important from a public health perspective.

- Current sections ISPSC 321-325 will need to be renumbered 322-326. Adding this section in to 321 to follow some other similar requirements only makes the code user friendly. This will put these after wastewater disposal but before lighting.

Coherent Restroom requirements are found in the 2020 Florida Building Code, the 2023 Florida Building Code, the 2021 IBC for indoor pools only, and the 2018 ISPSC for Class D pools only. The graph below compares this new proposal to these existing codes.

[NEED THE GRAPHIC]

- The 2021 IBC for indoor pools requires a high number of fixtures for even a minimal 0.5 deck area, and even more if more deck is provided. These requirements are out-of-range high compared to the others.
- The Florida Building Codes assume that the deck will be up to 3x the pool area and give a high number of fixtures regardless of if less deck is provided.
- The 2018 ISPSC for class D pools requires a very low number of fixtures, and is silent about how to treat the deck area.
- The proposal starts very close to the 2018 ISPSC if very little deck is provided, and then roughly matches the Florida Building Code for 3x deck area.

Cost Impact: Will decrease the cost of construction.

Substantiation: For indoor pools and Class D pools plumbing fixture requirement will be about the same. Indoor pool plumbing fixture requirements will be reduced. Outdoor pool plumbing fixture requirements will be increased. Overall, the number of plumbing fixtures will be slightly decreased.

BCAC Egress Item 37 ISPSC door hardware – 10-31-2023**PMGCAC Item XX****Proposer:** Dan Buuck**Change to ISPSC section organization (305.3 et seq.)****Cost:** none**Revise as follows:**

305.3 Doors, ~~and gates,~~ and windows.

Doors, ~~and gates,~~ and windows in barriers shall comply with the requirements of Sections ~~305.3.1 or 305.3.2 through 305.3.3~~

305.3.1 Doors and gates in barriers.

Where a door or gate is not in a wall of a dwelling or structure, doors and gates in barriers shall comply with the requirements of Sections 305.3.1.1 through 305.3.1.4 and shall be equipped to accommodate a locking device. Pedestrian access doors and gates shall open outward away from the pool or spa, shall be self-closing and shall have a self-latching device. Doors and gates shall not swing over stairs.

305.3.1.1 Utility or service doors and gates.

Doors and gates not intended for pedestrian use, such as utility or service doors and gates, shall remain locked when not in use.

305.3.1.2 Double or multiple doors and gates.

Double doors and gates or multiple doors and gates shall have not fewer than one leaf secured in place and the adjacent leaf shall be secured with a self-latching device.

305.3.1.3 Latch release.

For doors and gates in barriers, the door and gate latch release mechanisms shall be in accordance with the following:

1. Where door and gate latch release mechanisms are accessed from the outside of the barrier and are not of the self-locking type, such mechanism shall be located above the finished floor or ground surface in accordance with the following:
 - 1.1. At public pools and spas, not less than 52 inches (1219 mm) and not greater than 54 inches (1372 mm).
 - 1.2. At *residential* pools and spas, not less than 54 inches (1372 mm).
2. Where door and gate latch release mechanisms are of the self-locking type such as where the lock is operated by means of a key, an electronic opener or the entry of a combination into an integral combination lock, the lock operation control and the latch release mechanism shall be located above the finished floor or ground surface in accordance with the following:
 - 2.1. At public pools and spas, not less than 34 inches and not greater than 48 inches (1219 mm).

- 2.2. At *residential* pools and spas, at not greater than 54 inches (1372 mm).
3. At private pools, where the only latch release mechanism of a self-latching device for a gate is located on the pool and spa side of the barrier, the release mechanism shall be located at a point that is at least 3 inches (76 mm) below the top of the gate.

305.3.1.4 Barriers adjacent to latch release mechanisms.

Where a latch release mechanism is located on the inside of a barrier, openings in the door, gate, and barrier within 18 inches (457 mm) of the latch shall not be greater than 1/2 inch (12.7 mm) in any dimension.

305.43.2 Structure wall as a barrier.

Where a wall of a dwelling or structure serves as part of the barrier and where doors, gates or windows provide direct access to the pool or spa through that wall, each door, gate, or window in such barriers shall comply with the requirements of Section 305.3.2.1 or 305.3.2.2, one of the following shall be required:

305.3.2.1 Doors and gates.

Where doors or gates provide direct access to the pool or spa, each door or gate shall comply with one of the following:

1. The doors or gate shall comply with the requirements of Sections 305.3.1.
2. The door or gate shall have an alarm that complies with Section 305.3.2.3.
3. A safety cover that is listed and labeled in accordance with ASTM F1346 is installed for the pools and spas.
4. An approved means of protection shall be provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1, 2 or 3.

305.3.2.2 Operable windows.

Where one or more operable windows provides direct access to the pool or spa, each operable window with a sill height of less than 48 inches shall comply with one of the following:

1. The window shall have an alarm that complies with Section 305.3.2.3.
2. A safety cover that is listed and labeled in accordance with ASTM F1346 is installed for the pools and spas.
3. An approved means of protection shall be provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.

305.3.2.3 Alarms.

1.—Doors, gates, and operable Operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor, ~~doors and gates~~ shall have an alarm that produces an audible warning when the door, gate, window, ~~door~~ or theirs screens ~~are~~ is opened. The alarm shall be *listed* and labeled as a water hazard entrance alarm in accordance with UL 2017.

- ~~2.1.~~ In dwellings not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located at not less than 54 inches (1372 mm) above the finished floor.
 - ~~3.2.~~ In dwellings that are required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.
 - ~~4.3.~~ In structures other than dwellings, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1220 mm) above the finished floor.
 - ~~5.~~ *A safety cover that is listed and labeled in accordance with ASTM F1346 is installed for the pools and spas.*
 - ~~6.~~ *An approved means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.*
-

IBC (need revision)

(E44-21) AM

1010.2.3 Hardware height. Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches (864 mm) minimum and 48 inches (1219 mm) maximum above the finished floor.

Exceptions:

1. Locks used only for security purposes and not used for normal operation are permitted at any height.
 2. Where the International Swimming Pool and Spa Code requires restricting access to a pool, spa, or hot tub, and where door and gate latch release mechanisms are accessed from the outside of the barrier and are not of the self-locking type, such mechanism shall be located above the finished floor or ground surface, not less than 52 inches (1219 mm) and not greater than 54 inches (1370 mm) provided that the latch release mechanism is not a self-locking type such as where the lock is operated by means of a key, electronic opener or the entry of a combination into an integral combination lock.
-

Reason:

Sections 305.3 and 305.4 were modified in the 2021 edition of the ISPSC to address accessibility considerations. (See proposal SP8-18 which was approved as submitted.) The latch release provisions under Section 305.3.3 were expanded, and Items 2, 3 and 4 under Section 305.4 were separated out from Item 1 to differentiate between the requirements for dwellings and other structures.

Some fixes were identified to improve these sections. This change reorganizes Sections 305.3 and 305.4 into one section encompassing all openings in barriers. And it reorganizes the section dealing with openings in a structural used as a barrier (previously 305.4).

Section-by-section substantiation:

Section 305.3: The title was changed to include doors, gates, AND windows to support the reorganization. Each opening must comply with either of the new subsections.

Section 305.3.1: This is the existing 305.3, and no substantive changes to the requirements were made. A scoping statement was added to limit the section to barriers that are not part of a structure. The language was taken from the existing 305.4 and changed to the negative.

Section 305.3.2: This is the existing 305.4, and it was reorganized and updated. The issue that made a simple fix impossible was the fact that the charging paragraph ended with “one of the following shall be required.” This meant that only one of the items that followed could be applied to the entire situation. The language was changed in this proposal to allow each opening to be considered individually and comply with any of the provisions that follow.

Section 305.3.2.1: Doors and gates are now treated separately from windows for flexibility of compliance. Each opening should be considered individually to determine compliance.

Item 1: This requirement was implied, but not stated, in existing Section 305.4, Item 6, which pointed to “self-closing doors with self-latching devices” as an approved means of protection. This was required in existing Section 305.3, and it is logical that doors and gates complying with the requirements for doors and gates in barriers are acceptable for doors and gates in barriers that are part of a structure.

Item 2: This item points to the alarm requirements found in the existing section 305.4. It was repeated for operable windows below.

Items 3 and 4: These were copied from existing section 305.4 Items 5 and 6 (shown deleted) and are repeated for operable windows below.

Section 305.3.2.2: This is the complementary section for windows, similar to the section for doors and gates above. The option of providing operable windows with a sill height of 48 inches or more was not clearly stated in the existing language, but it was implied by requiring an alarm for operable windows with a sill height of less than 48 inches. It is provided in the charging statement for the sake of completeness.

Item 1: This item points to the alarm requirements found in the existing section 305.4.

Items 2 and 3: These are copied from existing section 305.4 Items 5 and 6 (shown deleted) and are repeated for operable windows below.

Section 305.3.2.3: This was moved to a separate section to be referenced by Section 305.3.2.1 Item 2 as well as Section 305.3.2.2 Item 2 above. The text was modified to editorially move doors and gates before operable windows and its qualifying language. The intent was to make it clear that the sill height limitation only applies to operable windows. The word “each” was added to clarify that each opening is treated individually.

Before the 2018 proposal, existing Items 2, 3 and 4 were part of the same paragraph with the charging language and should have been kept subordinate to it. These items were renumbered as Items 1, 2 and 3 to restore that subordination.

BCAC Egress Item 38

Measurement for open exterior exit stairways.

1007.1.1.1 Measurement point. The separation distance required in Section 1007.1.1 shall be measured in accordance with the following:

1. The separation distance to *exit* or *exit access doorways* shall be measured to any point along the width of the doorway.

2. The separation distance to *exit access stairways* shall be measured to the closest riser.

3. The separation distance to *exit access ramps* shall be measured to the start of the *ramp* run.

4. Where an exterior exit stairway or ramp connects to an open-ended corridor or an egress balcony, the separation distance shall be measured to the closest riser or start of the ramp run.

1017.3 Measurement. *Exit access* travel distance shall be measured from the most remote point of each room, area or space along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an *exit*. Where more than one exit is required, *exit access* travel distance shall be measured to the nearest exit.

Exceptions:

1. In *open parking garages*, *exit access* travel distance is permitted to be measured to the closest riser of an *exit access stairway* or the closest slope of an *exit access ramp*.

2. In smoke protected seating and open air assembly seating, *exit access* travel distance shall be measured in accordance with Section 1030.7.

3. Where an exterior exit stairway or ramp serves an open-ended corridor or an egress balcony, the exit access travel distance shall be measured to the closest riser or start of the ramp run.

Reason: There is not a clear location for separation or travel distance measurement for exit stairway and ramps permitted where exterior exit stairways or ramps connected to open ended corridors and egress balconies. The added language would address those situations and is consistent with open exit access stairways and ramps.

Cost impact: None. Clarification of current requirements where there is not an exit enclosure.

BCAC General – revised 8-4-2023

Idea 2 – pools and spas

Allison Cook; John Taecker

Reason: Coordinate terminology for swimming pools and spas with ISPSC. Wading pools have 18” of water per ISPSC and hot tub and cold baths are a type of spa.

‘Swimming pools’ is currently defined in the IBC and IPC only.

‘Spa’ is defined in ISPSC.

‘Hot tub’ is not defined.

‘Pools (swimming) hot tubs and spas’ are defined in IZC.

‘public swimming pool’ is defined in IPC and ISPSC.

‘residential swimming pool’ is defined in ISPSC.

Generic definitions for Swimming Pool and Spa based on ISPSC scope and current definitions.

IBC

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the *International Energy Conservation Code, International Fuel Gas Code, International Fire Code, International Mechanical Code, or International Plumbing Code, and International Swimming Pool and Spa Code*, such terms shall have the meanings ascribed to them as in those codes.

[BG] SWIMMING POOL. Any structure or product intended for swimming, recreational bathing or wading that contains water over 24 inches (610 mm) deep; designed and manufactured to be connected to a circulation system; and not intended to be drained and filled with each use. This includes in-ground, above-ground and on-ground pools; hot tubs; spas and fixed in-place wading pools.

SPA. Any structure or product intended for the immersion of persons in temperature-controlled water for the purpose of relaxing, exercise, therapy or treatment; designed and manufactured to be connected to a circulation system; and not intended to be drained and filled with each use.

ADM38-22 Part I AS

[A] 105.2 Work exempt from permit. Exemptions from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. *Permits* shall not be required for the following:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided that the floor area is not greater than 120 square feet (11 m²).
2. Fences, other than swimming pool and spa barriers, not over 7 feet (2134 mm) high.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any *basement* or *story* below and are not part of an *accessible route*.
7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
8. Temporary motion picture, television and theater stage sets and scenery.

9. Prefabricated *swimming pools* accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, are not greater than 5,000 gallons (18 925 L) and are installed entirely above ground.
10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
11. Swings and other playground equipment accessory to detached one- and two-family *dwelling*s.
12. Window awnings in Group R-3 and U occupancies, supported by an *exterior wall* that do not project more than 54 inches (1372 mm) from the *exterior wall* and do not require additional support.
13. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

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
- 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

303.5 Assembly Group A-4. Group A-4 occupancy includes assembly uses intended for viewing of indoor sporting events and activities with spectator seating including, but not limited to:

- Arenas
- Skating rinks
- Swimming pools*
- Tennis courts

507.6 Group A-3 buildings of Type II construction. The area of a Group A-3 building not more than one *story above grade plane*, used as a *place of religious worship*, community hall, dance hall, exhibition hall, gymnasium, lecture hall, indoor *swimming pool* or tennis court of Type II construction, shall not be limited provided that the following criteria are met:

1. The building shall not have a *stage* other than a *platform*.
2. The building shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
3. The building shall be surrounded and adjoined by *public ways* or *yards* not less than 60 feet (18 288 mm) in width.

507.7 Group A-3 buildings of Type III and IV construction. The area of a Group A-3 building of Type III or IV construction, with not more than one *story above grade plane* and used as a *place of religious worship*, community hall, dance hall, exhibition hall, gymnasium, lecture hall, indoor *swimming pool* or tennis court, shall not be limited provided that the following criteria are met:

1. The building shall not have a *stage* other than a *platform*.
2. The building shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
3. The assembly floor shall be located at or within 21 inches (533 mm) of street or grade level and all *exits* are provided with *ramps* complying with Section 1012 to the street or grade level.
4. The building shall be surrounded and adjoined by *public ways* or *yards* not less than 60 feet (18 288 mm) in width.

**TABLE 1004.5
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR ^a
Skating rinks, <i>swimming pools</i>	
Rink and <i>swimming pool</i>	50 gross
Decks	15 gross

Commented [JH1]: Refer to the occupant load proposal that was already approved by BCAC for the latest language here.

(E44-21) AM

1010.2.3 Hardware height. Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches (864 mm) minimum and 48 inches (1219 mm) maximum above the finished floor.

Exceptions:

1. Locks used only for security purposes and not used for normal operation are permitted at any height.
2. Where the International Swimming Pool and Spa Code requires restricting access to a *swimming pool; or spa; or hot tub*, and where door and gate latch release mechanisms are accessed from the outside of the barrier and are not of the self-locking type, such mechanism shall be located above the finished floor or ground surface, not less than 52 inches (1219 mm) and not greater than 54 inches (1370 mm), provided that the latch release mechanism is not a self-locking type such as where the lock is operated by means of a key, electronic opener, or the entry of a combination into an integral combination lock.

Commented [JH2]: Check with Kim on where the latest updated language for this is, would be a separate proposal and needs to use the "swimming pool or spa" terms.

1110.18 1110.15 Controls, operating mechanisms and hardware. Controls, operating mechanisms and hardware intended for operation by the occupant, including switches that control lighting and ventilation and electrical convenience outlets, in accessible spaces, along accessible routes or as parts of *accessible* elements shall be *accessible*.

Exceptions:

1. Operable parts that are intended for use only by service or maintenance personnel shall not be required to be *accessible*.
2. Access doors or gates in barrier walls and fences protecting *swimming pools; and spas and hot tubs* shall be permitted to comply with Section 1010.2.3.
3. Operable parts exempted in accordance with ICC A117.1 are not required to be *accessible*.

1111.4.14 Swimming pools, ~~wading pools, cold baths, hot tubs~~ and spas. *Swimming pools, wading pools, cold baths, hot tubs* and *spas* shall be *accessible* and be on an accessible route.

Exceptions:

1. Catch pools or a designated section of a pool used as a terminus for a water slide flume shall not be required to provide an *accessible* means of entry, provided that a portion of the catch pool edge is on an *accessible route*.
2. Where *spas, cold baths or hot tubs* are provided in a cluster, at least 5 percent, but not less than one of each type of *spa, cold bath or hot tub* in each cluster, shall be *accessible* and be on an *accessible route*.
3. *Swimming pools; and wading pools, spas, cold baths and hot tubs* that are required to be *accessible* by Sections 1111.2.2 and 1111.2.3 are not required to provide *accessible* means of entry into the water.

1111.4.14.1 Raised diving boards and diving platforms. Raised diving boards and diving platforms are not required to be *accessible* or to be on an *accessible route*.

1111.4.14.2 Water slides. Water slides are not required to be *accessible* or to be on an *accessible route*.

1202.3 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 of the following conditions are met:

1. to 5. (no change)

Exceptions:

1. Section 1202.3 does not apply to special use structures or enclosures such as **swimming pool** enclosures, data processing centers, hospitals or art galleries.
2. Section 1202.3 does not apply to enclosures in Climate Zones 5 through 8 that are humidified beyond 35 percent during the three coldest months.

1808.7.3 Swimming Pools. The setback between **swimming pools** regulated by this code and slopes shall be equal to one-half the building footing setback distance required by this section. That portion of the **swimming pool** wall within a horizontal distance of 7 feet (2134 mm) from the top of the slope shall be capable of supporting the water in the **swimming pool** without soil support.

Commented [JH3]: Is this section also in the ISPC and/or should it be?

2406.2 Impact test. Where required by other sections of this code, glazing shall be tested in accordance with CPSC 16 CFR Part 1201. Glazing shall comply with the test criteria for Category II, unless otherwise indicated in Table 2406.2(1).

Exception: Glazing not in doors or enclosures for **hot tubs, whirlpools, spas, saunas, steam rooms, bathtubs** and showers shall be permitted to be tested in accordance with ANSI Z97.1. Glazing shall comply with the test criteria for Class A, unless otherwise indicated in Table 2406.2(2).

Commented [JH4]: And if anyone questions removing whirlpools, well they are a type of bathtub, so covers here, they are not a type of spa/hot tub.

2406.4.5 Glazing and wet surfaces. Glazing in walls, enclosures or fences containing or facing **hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers** and indoor or outdoor **swimming pools** where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface shall be considered to be a hazardous location. This shall apply to single glazing and all panes in multiple glazing.

Exception: Glazing that is more than 60 inches (1524 mm), measured horizontally and in a straight line, from the water's edge of a bathtub, **hot tub, spa, whirlpool** or **swimming pool**.

2609.4 Area limitations. Roof panels shall be limited in area and the aggregate area of panels shall be limited by a percentage of the floor area of the room or space sheltered in accordance with Table 2609.4.

Exceptions:

1. The area limitations of Table 2609.4 shall be permitted to be increased by 100 percent in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
2. Low-hazard occupancy buildings, such as **swimming pool** shelters, shall be exempt from the area limitations of Table 2609.4, provided that the buildings do not exceed 5,000 square feet (465 m²) in area and have a minimum *fire separation distance* of 10 feet (3048 mm).
3. *Greenhouses* that are occupied for growing or maintaining plants, without public access, shall be exempt from the area limitations of Table 2609.4 provided that they have a minimum *fire separation distance* of 4 feet (1220 mm).

4. Roof coverings over terraces and patios in occupancies in Group R-3 shall be exempt from the area limitations of Table 2609.4 and shall be permitted with light-transmitting plastics.

[P] TABLE 2902.1
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a (See Sections 2902.1.1 and 2902.2)

No.	CLASSIFICATION	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 424.2 OF THE INTERNATIONAL PLUMBING CODE)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAINS (SEE SECTION 410 OF THE INTERNATIONAL PLUMBING CODE)	OTHER
			Male	Female	Male	Female			
1	Assembly	Coliseums, arenas, skating rinks, swimming pools and tennis courts for indoor sporting events and activities ^f	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150	—	1 per 1,000	1 service sink

Commented [KP5]: IBC Chapter 29 controlled by IPC

Commented [JH6R5]: See final fixture proposal PMGCAC adopted that included updates to this section.

f. The required number and type of plumbing fixtures for **indoor and outdoor public swimming pools** shall be in accordance with Section 609 of the *International Swimming Pool and Spa Code*.

G194-21 AS; CCC16-22

3101.1 Scope. The provisions of this chapter shall govern special building construction including *membrane structures*, temporary structures, *pedestrian walkways* and tunnels, *awnings* and *canopies*, *marquees*, signs, **telecommunications and broadcast towers**, **swimming pools—and spas and hot-tubs**, **automatic vehicular gates**, solar energy systems, **greenhouses**, **relocatable buildings** and *intermodal shipping containers*.

3102.8.3 Support provisions. A system capable of supporting the membrane in the event of deflation shall be provided for in *air-supported* and *air-inflated structures* having an *occupant load* of 50 or more or where covering a **swimming pool** regardless of *occupant load*. The support system shall be capable of maintaining membrane structures used as a roof for Type I construction not less than 20 feet (6096 mm) above floor or seating areas. The support system shall be capable of maintaining other membranes not less than 7 feet (2134 mm) above the floor, seating area or surface of the water.

SECTION 3109
SWIMMING POOLS, and SPAS AND HOT-TUBS

3109.1 General. The design and construction of swimming pools, **and spas and hot-tubs** shall comply with the *International Swimming Pool and Spa Code*.

G112.5 Swimming pools. **Swimming pools** shall be designed and constructed in accordance with ASCE 24. Above-ground **swimming pools**, on-ground **swimming pools** and in-ground **swimming pools** that involve placement of fill in *floodways* shall also meet the requirements of Section G104.5.

SWIMMING POOL. Any structure or product intended for swimming, bathing or wading; designed and manufactured to be connected to a circulation system; and not intended to be drained and filled with each use.

SPA. Any structure or product intended for the immersion of persons in temperature-controlled water for the purpose of relaxing, exercise, therapy or treatment; designed and manufactured to be connected to a circulation system; and not intended to be drained and filled with each use.

R105.2 Work exempt from permit. Exemption from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this *jurisdiction*. *Permits* shall not be required for the following:

Building:

1. Other than *storm shelters*, one-story detached *accessory structures*, provided that the floor area does not exceed 200 square feet (18.58 m²).
2. Fences not over 7 feet (2134 mm) high.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated **swimming pools** that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet (18.58 m²) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a dwelling **or townhouse** and do not serve the exit door required by Section R311.4.

RB139-22 AS; RB137-22 D/AS

R322R306.3.2 Elevation requirements.

1. to 5 (no change)
- 5-6** Minor grading, and the placement of minor quantities of fill, shall be permitted for landscaping and for drainage purposes under and around buildings and for support of parking slabs, **swimming pool** decks, patios and walkways.
- 6-7** Walls and partitions enclosing areas below the elevation required in this section shall meet the requirements of Sections ~~R322R306.3.5~~ and ~~R322R306.3.6~~.

R308R324.3.1 Impact test. Where required by other sections of the code, glazing shall be tested in accordance with CPSC 16 CFR 1201. Glazing shall comply with the test criteria for Category II unless otherwise indicated in Table ~~R308R324.3.1(1)~~.

Exception: Glazing not in doors or enclosures for **hot tubs, whirlpools, spas** saunas, steam rooms, bathtubs and showers shall be permitted to be tested in accordance with ANSI Z97.1. Glazing shall comply with the test criteria for Class A unless otherwise indicated in Table ~~R308R324.3.1(2)~~.

R308R324.4.5 Glazing and wet surfaces. Glazing in walls, enclosures or fences containing or adjacent to **hot tubs, spas, whirlpools,** saunas, steam rooms, bathtubs, showers and indoor or outdoor **swimming pools** where the

bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface shall be considered to be a hazardous location. This shall apply to single glazing and each pane in multiple glazing.

Exception: Glazing that is more than 60 inches (1524 mm), measured horizontally, from the water's edge of a bathtub, hot tub, spa, whirlpool or swimming pool or from the edge of a shower, sauna or steam room.

**SECTION R327R328
SWIMMING POOLS, AND SPAS AND HOT TUBS**

R327R328.1 General. The design and construction of swimming pools and spas shall comply with the *International Swimming Pool and Spa Code*.

N1103.10 (R403.10) Energy consumption of swimming pools and spas. The energy consumption of swimming pools and permanent spas shall be controlled by the requirements in Sections N1103.10.1 through N1103.10.3.

N1103.10.2 (R403.10.2) Time switches. Time switches or other control methods that can automatically turn heaters and pump motors off and on according to a preset schedule shall be installed for heaters and pump motors. Heaters and pump motors that have built-in time switches shall be in compliance with this section.

Exceptions:

1. Where public health standards require 24-hour pump operation.
2. Pumps that operate solar- and waste-heat recovery swimming pool heating systems.

N1103.10.3 (R403.10.3) Covers. Outdoor heated swimming pools and outdoor permanent spas shall be provided with a vapor-retardant cover or other *approved* vapor-retardant means.

Exception: Where more than 75 percent of the energy for heating, computed over an operation season of not fewer than 3 calendar months, is from a heat pump or an on-site renewable energy system, covers or other vapor-retardant means shall not be required.

N1103.11(R403.11) Portable spas.

The energy consumption of electric-powered portable spas shall be controlled by the requirements of APSP 14.

N1103.12 (R403.12) Residential Swimming pools and permanent residential spas. Where installed, the energy consumption of residential swimming pools and permanent residential spas shall be controlled in accordance with the requirements of APSP-PHTA 15.

**TABLE N1105.2 (R405.2)
REQUIREMENTS FOR TOTAL BUILDING PERFORMANCE**

Section	Title
N1103.10	Energy consumption of <u>swimming pools</u> and <u>spas</u>
N1103.11	Portable <u>spas</u>
N1103.12	<u>Residential pools</u> and permanent <u>residential spas</u>

RM18-21 (AS), RM19-21 (AMPC1), RB20-21 (AMPC1)

M1602.2 Return air openings. Return air openings for heating, *ventilation* and air-conditioning systems shall comply with all of the following:

1. Openings shall not be located less than 10 feet (3048 mm) measured in any direction from an open combustion chamber or draft hood of another *appliance* located in the same room or space.
2. The amount of return air taken from any room or space except mechanical rooms, boiler rooms or furnace rooms shall be not greater than the flow rate of supply air delivered to such room or space. Return air taken

Commented [KP7]: Hot tub not used in text

Commented [KP8R7]: Not applicable to anything other than residential pools. There are not requirement swimming pools in commercial.

Commented [KP9]: IRC Chapter 11 controlled by IECC Residential

Commented [JH10]: Inserted this section that is in the current code just so we have it here as an FYI.

Commented [KP11]: This is residential energy code, so does not need to say 'residential'. Leave distinction to ISPSC.

from mechanical rooms, boiler rooms or furnace rooms shall serve only the mechanical room and shall be permitted to be taken from mechanical rooms that have no dedicated supply duct.

3. Return and transfer openings shall be sized in accordance with the *appliance* or *equipment* manufacturer's installation instructions, Manual D or the design of the *registered design professional*.

4. Where return air is taken from a mechanical room, boiler room or furnace room with combustion appliances only sealed combustion appliances shall be permitted within the mechanical room.

5. Where return air is taken from a mechanical room, boiler room or furnace room the pressure differential across the mechanical room, boiler room or furnace room door shall be limited to 0.01 inch WC (2.5 pascals) or less by undercutting the door, or installing a louvered door or transfer grille, or by some other means.

6. Where return air is taken from a closet the return air shall be no more than 30 cfm (15 l/s), shall serve only the closet, shall not require a dedicated supply duct and the closet door shall be undercut a minimum of 1.5 inches (38 mm) or the closet shall include a louvered door or transfer grille with a minimum net free area of 30 inch² (194 cm²).

4-7. Return air shall not be taken from a closet, bathroom, toilet room, kitchen, garage, mechanical room, boiler room, furnace room or unconditioned attic.

Exceptions:

1. Taking return air from a kitchen is not prohibited where such return air openings serve the kitchen only, and are located not less than 10 feet (3048 mm) from the cooking *appliances*.
2. Dedicated forced-air systems serving only the garage shall not be prohibited from obtaining return air from the garage.

3. Return air taken from closets shall serve only the closet and shall be permitted to be taken from closets that have no dedicated supply duct.

5-8. For other than dedicated HVAC systems, return air shall not be taken from indoor swimming pool enclosures and associated deck areas except where the air in such spaces is dehumidified,

6-9. Taking return air from an unconditioned *crawl space* shall not be accomplished through a direct connection to the return side of a forced-air furnace. Transfer openings in the *crawl space* enclosure shall not be prohibited.

7-10. Return air from one *dwelling unit* shall not be discharged into another *dwelling unit*.

SECTION M2006 SWIMMING POOL HEATERS

RM4-21 (AS)

M2006.1 General. *Swimming Pool* and *spa* heaters shall be installed in accordance with the manufacturer's installation instructions. Oil-fired *swimming pool* heaters shall comply be listed and labeled in accordance with UL 726. Electric *swimming pool* and *spa* heaters shall comply be listed and labeled in accordance with UL 1261. *Swimming Pool* and *spa* heat pump water heaters shall comply be listed and labeled in accordance with UL 1995, or UL/CSA/ANZCE 60335-2-40 or CSA C22.2 No. 236.

Exception: Portable residential *spas* and portable residential exercise *spas* shall comply be listed and labeled in accordance with UL 1563 or CSA C22.2 No. 218.1.

M2006.2 Clearances. The clearances shall not interfere with *combustion air*, draft hood or flue terminal relief, or accessibility for servicing.

M2006.3 Bypass valves. Where an integral bypass system is not provided as a part of the *swimming pool* heater, a bypass line and valve shall be installed between the inlet and outlet piping for use in adjusting the flow of water through the heater.

SECTION M2301
SOLAR THERMAL ENERGY SYSTEMS

M2301.1 General. This section provides for the design, construction, installation, *alteration* and *repair* of equipment and systems using solar thermal energy to provide space heating or cooling, hot water heating and **swimming pool** heating.

M2301.2.5 Piping insulation. Piping shall be insulated in accordance with the requirements of Chapter 11. Exterior insulation shall be protected from ultraviolet degradation. The entire solar loop shall be insulated. Where split-style insulation is used, the seam shall be sealed. Fittings shall be fully insulated.

Exceptions:

1. Those portions of the piping that are used to help prevent the system from overheating shall not be required to be insulated.
2. Those portions of piping that are exposed to solar radiation, made of the same material as the solar collector absorber plate and are covered in the same manner as the solar collector absorber, or that are used to collect additional solar energy, shall not be required to be insulated.
3. Piping in thermal solar systems using unglazed solar collectors to heat a **swimming pool** shall not be required to be insulated.

SECTION G2441 (IFGC 617)
SWIMMING POOL AND SPA HEATERS

G2441.1 (617.1) General. **Swimming Pool** and **spa** heaters shall be *listed* in accordance with ANSI Z21.56/CSA 4.7 and shall be installed in accordance with the manufacturer's instructions.

P2911.2 Sources. On-site nonpotable water reuse systems shall collect waste discharge only from the following sources: bathtubs, showers, lavatories, clothes washers and laundry trays. Water from other *approved* nonpotable sources including **swimming pool** backwash operations, air conditioner condensate, rainwater, foundation drain water, fluid cooler discharge water and fire pump test water shall be permitted to be collected for reuse by on-site nonpotable water reuse systems, as *approved* by the *building official* and as appropriate for the intended application.

E3608.7 Swimming Pool, and spa and hot tub structures and structural reinforcing steel. The structures and structural reinforcing steel described in Section E4204.2, Items 1 and 2, shall not be used as a grounding electrode. [250.52 (B)(3)]

TABLE E3803.1 (Table 300.5)

MINIMUM COVER REQUIREMENTS, BURIAL IN INCHES^{a, b, c, d, e}

g. A depth of 6 inches shall be permitted for **swimming pool, spa,** and fountain lighting that is installed in a nonmetallic raceway, limited to not more than 30 volts and part of a listed low-voltage lighting system.

CHAPTER 42
SWIMMING POOLS
-Controlled by another process-

IZC

Any structure or product intended for swimming, **recreational** bathing or wading ~~that contains water over 24 inches (610 mm) deep;~~ designed and manufactured to be connected to a circulation system; and not

intended to be drained and filled with each use. This includes in-ground, above-ground and on-ground pools; ~~hot tubs; spas and fixed-in-place~~ wading pools.

POOLS (SWIMMING), HOT TUBS AND SPAS.

~~Above-ground/on-ground pool. See "Private swimming pool."~~

~~Barrier. A fence, a wall, a building wall, the wall of an above-ground swimming pool or a combination thereof, which completely surrounds the swimming pool and obstructs access to the swimming pool.~~

~~Hot tub. See "Private swimming pool."~~

~~In-ground pool. See "Private swimming pool."~~

~~Power safety cover. A pool cover that is placed over the water area, and is opened and closed with a motorized mechanism activated by a control switch.~~

~~Private swimming pool, indoor. Any private swimming pool that is totally contained within a private structure and surrounded on all four sides by walls of said structure.~~

~~Private swimming pool, outdoor. Any private swimming pool that is not an indoor pool.~~

~~Private swimming pool. Any structure that contains water over 24 inches (610 mm) in depth and that is used, or intended to be used, for swimming or recreational bathing in connection with an occupancy in Use Group R-3 and that is available only to the family and guests of the householder. This includes in-ground, above-ground, and on-ground swimming pools, hot tubs and spas.~~

~~Public swimming pool. Any swimming pool other than a private swimming pool.~~

~~Spa. See "Private swimming pool."~~

SECTION 501

RESIDENTIAL ZONES DEFINED

501.1 Residential zone. Allowable residential (R) zone uses shall be:

Division 1. The following uses are permitted in an R, Division 1 zone:

Single-family dwellings, publicly owned and operated parks, recreation centers, **swimming pools** and playgrounds, police and fire department stations, public and governmental services, public libraries, schools and colleges (excluding colleges or trade schools operated for profit), public parking lots, *private garages*, buildings accessory to the above permitted uses (including private garages, **accessory dwelling units** and *accessory living quarters*), and temporary buildings.

Division 2. The following uses are permitted in an R, Division 2 zone:

Any use permitted in R, Division 1 zones and two-family dwellings.

Division 3. The following uses are permitted in an R, Division 3 zone:

All uses permitted in R, Division 2 zones, multiple-unit dwellings, such as apartment houses, boarding houses, condominiums and *congregate residences*.

SECTION 601

COMMERCIAL AND COMMERCIAL/RESIDENTIAL ZONES DEFINED

601.1 Commercial and commercial/residential zones. Allowable commercial (C) zone and commercial/residential (CR) zone uses shall be:

C Zone

Division 1. The following uses are permitted in a C, Division 1 zone:

Minor automotive repair, automotive motor fuel dispensing facilities, automotive self-service motor fuel dispensing facilities, business or financial services, convenience and *neighborhood commercial centers* (excluding wholesale sales), family and *group day care* facilities, libraries, mortuary and funeral homes, public

Commented [JH12]: Assume we would put in the "swimming pools" and "spas" definitions from IBC and IRC, in the IZC to be consistent and replace the existing text being struck?

Commented [KP13]: None of these terms is used in the text.

and governmental services, police and fire department stations, places of religious worship, public utility stations, and restaurants.

Division 2. The following uses are permitted in a C, Division 2 zone:

Any uses permitted in C, Division 1 zones, and *light commercial* (excluding wholesale sales), *group care facilities*, physical fitness centers, religious, cultural and fraternal activities, rehabilitation centers, and schools and colleges operated for profit (including commercial, vocational and trade schools).

Division 3. The following uses are permitted in a C, Division 3 zone:

Any uses permitted in C, Division 2 zones, and amusement centers (including **swimming pools**, bowling alleys, golf driving ranges, miniature golf courses, ice rinks, pool and billiard halls, and similar recreational uses), automotive sales, building material supply sales (wholesale and retail), cultural institutions (such as museums and art galleries), *community commercial centers* (including wholesale and retail sales), health and medical institutions (such as hospitals), hotels and motels (excluding other residential occupancies), commercial printing and publishing, taverns and cocktail lounges, indoor theaters, and self-storage warehouses.

Division 4. The following uses are permitted in a C, Division 4 zone:

Any uses permitted in C, Division 3 zones, and *major automotive repair*, commercial bakeries, *regional commercial centers* (including wholesale and retail sales), plastic products design, molding and assembly, small metal products design, casting, fabricating, and processing, manufacture and finishing, storage yards, and wood products manufacture and finishing.

CR Zone

Permitted (commercial/residential) (CR) zone uses shall be:

Division 1. The following uses are permitted in a CR, Division 1 zone:

Any use permitted in a C, Division 1 zone, and residential use permitted, except in the *story* or *basement* abutting street *grade*.

Division 2. The following uses are permitted in a CR, Division 2 zone:

Any use permitted in a C, Division 2 zone, and residential use permitted, except in the *story* or *basement* abutting street *grade*.

Commented [KP14]: Why are swimming pools not in the commercial lists?

IECC Commercial

C404.8 Energy consumption of pools and permanent spas. The energy consumption of **swimming pools** and permanent **spas** shall be controlled by the requirements in Sections C404.8.1 through C404.8.3.

C404.8.1 Heaters. The electric power to all heaters shall be controlled by an on-off switch that is an integral part of the heater, mounted on the exterior of the heater, or external to and within 3 feet (914 mm) of the heater in a location with *ready access*. Operation of such switch shall not change the setting of the heater thermostat. Such switches shall be in addition to a circuit breaker for the power to the heater. Gas-fired heaters shall not be equipped with continuously burning ignition pilots.

C404.8.2 Time switches. Time switches or other control methods that can automatically turn off and on heaters and pump motors according to a preset schedule shall be installed for heaters and pump motors. Heaters and pump motors that have built-in time switches shall be in compliance with this section.

Exceptions:

1. Where public health standards require 24-hour pump operation.
2. Pumps that operate solar- and waste-heat recovery **swimming** pool heating systems.

C404.8.3 Covers. Outdoor heated **swimming pools** and outdoor permanent **spas** shall be provided with a vapor-retardant cover or other *approved* vapor-retardant means.

Exception: Where more than 75 percent of the energy for heating, computed over an operating season of not fewer than 3 calendar months, is from a heat pump or an on-site renewable energy system, covers or other vapor-retardant means shall not be required.

C404.9 Portable spas. The energy consumption of electric powered portable spas shall be controlled by the requirements of APSP 14.

IPC

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the *International Building Code*, *International Fire Code*, *International Fuel Gas Code*, *International Swimming Pool and Spa Code*, or the *International Mechanical Code*, such terms shall have the meanings ascribed to them as in those codes.

SWIMMING POOL. ~~Any A permanent or temporary structure or product designed to hold water and that is intended to be used for swimming, bathing or wading; and that is designed and manufactured to be connected to a circulation system; and not intended to be drained and filled with each use. This includes in-ground, above-ground and on-ground swimming pools; spas and wading pools. A swimming pool can be open to the public regardless of whether a fee is charged for its use or can be accessory to a residential setting where the pool is available only to the household and guests of the household. Swimming pools shall be further classified and defined as follows:~~

PUBLIC SWIMMING POOL. ~~A swimming pool, other than a residential swimming pool, that is intended to be used for swimming or bathing and that is operated by an owner, lessee, operator, licensee or concessionaire, regardless of whether a fee is charged for use.~~

RESIDENTIAL SWIMMING POOL. ~~A swimming pool that is accessory to a residential dwelling and available only to the household and its guests.~~

SPA. ~~Any structure or product intended for the immersion of persons in temperature-controlled water for the purpose of relaxing, exercise, therapy or treatment; designed and manufactured to be connected to a circulation system; and not intended to be drained and filled with each use.~~

TABLE 403.1—continued

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a (See Sections 403.1.1 and 403.2)

f. The required number and type of plumbing fixtures for outdoor public swimming pools shall be in accordance with Section 609 of the *International Swimming Pool and Spa Code*.

SECTION 423

SPECIALTY PLUMBING FIXTURES

423.1 Water connections. Baptisteries, ornamental and lily pools, aquariums, ornamental fountain basins, swimming pools, and similar constructions, where provided with water supplies, shall be protected against backflow in accordance with Section 608.

SECTION 612

SOLAR SYSTEMS

612.1 Solar systems. The construction, installation, alterations and repair of systems, equipment and appliances intended to utilize solar energy for space heating or cooling, domestic hot water heating, swimming pool heating or process heating shall be in accordance with the *International Mechanical Code*.

CHAPTER 8 INDIRECT/SPECIAL WASTE

801.1 Scope. This chapter shall govern matters concerning indirect waste piping and special wastes. This chapter shall further control matters concerning food-handling establishments, sterilizers, humidifiers, clear-water waste, swimming pools, methods of providing air breaks or air gaps, and neutralizing devices for corrosive wastes.

Commented [KP15]: IPC does not use spa or hot tub, defined or in text.

Commented [KP16]: Define a swimming pool and make public and residential subsets. You have to define residential in the IPC so that you can separate out public swimming pools.

Commented [KP17]: Important to include spas and wading pools in the definition for swimming pool to coordinate with the change for occupant load from PMGCAC.

Commented [JH18]: Can we use what the ISPSC has for the residential and public pool definitions, and then the "Swimming pool" definition follow what is agreed to on IBC, IRC, etc.?

SECTION 802

INDIRECT WASTES

801.1 Scope. This chapter shall govern matters concerning indirect waste piping and special wastes. This chapter shall further control matters concerning food-handling establishments, sterilizers, humidifiers, clear-water waste, **swimming pools**, methods of providing *air breaks* or *air gaps*, and neutralizing devices for corrosive wastes.

802.1.4 Swimming pools. Where wastewater from **swimming pools**, backwash from filters and water from pool deck drains discharge to the building drainage system, the discharge shall be through an indirect waste pipe by means of an *air gap*.

ISPSC

SP21-21 AMPC1

AQUATIC VENUE. A constructed structure or modified natural structure containing water and intended for recreational or therapeutic use. Exposure to water in these structures may occur by contact, ingestion, or aerosolization. Examples include **swimming pools, wave pools, lazy rivers, surf pools, spas, hot tubs, therapy pools, spray pads, waterpark pools, and other interactive water venues.**

BATHER. A person using a pool, **or** spa ~~or hot tub~~ and adjoining deck area for the purpose of water sports, recreation, therapy or related activities.

PUBLIC SWIMMING POOL (Public Pool). A pool, other than a *residential* pool, that is intended to be used for swimming, **or** bathing **or** wading and is operated by an owner, lessee, operator, licensee or concessionaire, regardless of whether a fee is charged for use. Public pools shall be further classified and defined as follows:

Class A competition pool. A pool intended for use for accredited competitive aquatic events such as Federation Internationale De Natation (FINA), USA Swimming, USA Diving, USA Synchronized Swimming, USA Water Polo, National Collegiate Athletic Association (NCAA), or the National Federation of State High School Associations (NFHS).

Class B public pool. A pool intended for public recreational use that is not identified in the other classifications of public pools.

Class C semi-public pool. A pool operated solely for and in conjunction with lodgings such as hotels, motels, apartments or condominiums.

Class D-1 wave action pool. A pool designed to simulate breaking or cyclic waves for purposes of general play or surfing.

Class D-2 activity pool. A pool designed for casual water play ranging from simple splashing activity to the use of attractions placed in the pool for recreation.

Class D-3 catch pool. A body of water located at the termination of a manufactured waterslide attraction. The body of water is provided for the purpose of terminating the slide action and providing a means for exit to a deck or walkway area.

Class D-4 leisure river. A manufactured stream of water of near-constant depth in which the water is moved by pumps or other means of propulsion to provide a river-like flow that transports bathers over a defined path that may include water features and play devices.

Class D-5 vortex pool. A circular pool equipped with a method of transporting water in the pool for the purpose of propelling riders at speeds dictated by the velocity of the moving stream of water.

Class D-6 interactive play attraction. A manufactured water play device or a combination of water-based play devices in which water flow volumes, pressures or patterns can be varied by the bather without negatively influencing the hydraulic conditions for other connected devices. These attractions incorporate devices or activities such as slides, climbing and crawling structures, visual effects, user-actuated mechanical devices and other elements of bather-driven and bather-controlled play.

Commented [JH19]: PHTA CAC is working on updating terms for ISPSC, to share with PMGCAC and others.

Commented [JH20R19]: Refer to ISPSC terminology proposal update 11.7.23 draft

Commented [KP21]: See Class F

Class E. Pools used for instruction, play or therapy and with temperatures above 86°F (30°C).

Class F. Class F pools are **wading pools** and are covered within the scope of this code as set forth in Section 405.

Public pools are either a diving or nondiving type. Diving types of public pools are classified into types as an indication of the suitability of a pool for use with diving equipment.

Type O. A nondiving public pool.

Types VI–IX. Public pools suitable for the installation of diving equipment by type.

RESIDENTIAL SWIMMING POOL (Residential Pool). A pool intended for use that is accessory to a *residential* setting and available only to the household and its guests. Other pools shall be considered to be public pools for purposes of this code.

Type O. A nondiving *residential* pool.

Types I–V. *Residential* pools suitable for the installation of diving equipment by type.

SAFETY COVER. A structure, fabric or assembly, along with attendant appurtenances and anchoring mechanisms, that is temporarily placed or installed over an entire pool, spa or hot tub and secured in place after all bathers are absent from the water.

SPA. A product intended for the immersion of persons in temperature-controlled water circulated in a closed system, and not intended to be drained and filled with each use. A spa usually includes a filter, an electric, solar or gas heater, a pump or pumps, and a control, and can include other equipment, such as lights, blowers, and water-sanitizing equipment. **Spas shall be further classified and defined as follows:**

Nonself-contained spa. A factory-built *spa* in which the water heating and circulating equipment is not an integral part of the product. Nonself-contained spas may employ separate components such as an individual filter, pump, heater and controls, or they can employ assembled combinations of various components.

Permanent residential spa. A spa, intended for use that is accessory to a *residential* setting and available to the household and its guests and where the water heating and water-circulating equipment is not an integral part of the product. The spa is intended as a permanent plumbing fixture and not intended to be moved.

Portable residential spa. A spa intended for use that is accessory to a *residential* setting and available to the household and its guests and where it is either self contained or nonself-contained.

Public spa. A spa other than a permanent *residential* spa or portable *residential* spa that is intended to be used for bathing and is operated by an owner, licensee or concessionaire, regardless of whether a fee is charged for use.

Self-contained spa. A factory-built spa in which all control, water heating and water-circulating equipment is an integral part of the product. Self-contained spas may be permanently wired or cord connected.

SUBMERGED VACUUM FITTING. A fitting intended to provide a point of connection for suction side automatic swimming pool, and *spa*, and hot tub cleaners.

SECTION 305 BARRIER REQUIREMENTS

305.1 General. The provisions of this section shall apply to the design of barriers for restricting entry into areas having **pools and spas**. Where spas ~~or hot tubs~~ are equipped with a lockable *safety cover* complying with ASTM F1346 and swimming pools are equipped with a powered *safety cover* that complies with ASTM F1346, the areas where those spas, ~~hot tubs~~ or swimming pools are located shall not be required to comply with Sections 305.2 through 305.7.

SECTION 405 WADING POOLS

405.4 Maximum depth. The water depth shall not exceed **18 inches** (457 mm).

Commented [KP22]: Used for what? Could be a reflecting ppl - should say swimming, bathing or wading like public pools

Commented [KP23]: Do you intend to include hot tubs or not? Text is inconsistent. Hot tubs are a type of spa.

405.5 Distance from deck to waterline. The maximum distance from the top of the deck to the waterline shall not exceed 6 inches (152 mm).

**SECTION 508
SANITIZING, OXIDATION EQUIPMENT AND
CHEMICAL FEEDERS**

508.1 Automatic controllers. Where an automatic controller is installed on a spa ~~or hot tub~~ for public use, the controller shall be installed with an automatic pH and an oxidation reduction potential controller *listed* and *labeled* in compliance with NSF 50.

IBC

[BG] STORM SHELTER. A building, structure or portions thereof, constructed in accordance with ICC 500 ~~for protection from and designated for use during tornadoes, hurricanes, tornadoes or and~~ other severe windstorms.

Community storm shelter. A storm shelter not defined as a “Residential storm shelter.” This includes storm shelters intended for use by the general public, by building occupants or a combination of both.

Residential storm shelter. A storm shelter serving occupants of *dwelling units* and having an *occupant load* not exceeding 16 persons.

423.3 Occupancy classification. The occupancy classification for a *storm shelter* shall be determined in accordance with this section.

423.3.1 Dedicated storm shelters. A facility designed to be occupied solely as a *storm shelter* shall be classified as Group A-3 for the determination of requirements other than those covered in ICC 500.

Exceptions:

1. The occupancy category for dedicated storm shelters with a design occupant capacity of less than 50 persons as determined in accordance with ICC 500 shall be in accordance with Section 303.
2. The occupancy category for a dedicated residential storm shelter shall be the Group R occupancy served.

423.3.2 Storm shelters occupied for other purposes within host buildings. ~~Where designated storm shelters are constructed as a room or space within a host building~~ *Storm shelters* that will normally be occupied for other purposes shall comply with; the requirements of this code for the occupancy of the building, or the individual rooms or spaces thereof, ~~shall apply~~ unless otherwise required by ICC 500.

Reason: Proposed changes to the next edition of ICC 500 include revising the language of ICC 500 Section 104.1 related to rooms or spaces within a building that are constructed as an ICC 500-compliant hurricane or tornado shelter but are otherwise normally used for other reasons, such as a gymnasium or multi-purpose room in a school. Confusion over the term “host building” led the ICC 500 committee to clarify and simplify the provision.

Cost impact: None. This is an editorial clarification with no change to code requirements.

CORRELATING CHANGE FOR THE IRC

[RB] STORM SHELTER. A building, structure or portions thereof, constructed in accordance with ICC 500 ~~for protection from and designated for use during tornadoes,~~ hurricanes, ~~tornadoes~~ ~~or~~ and other severe windstorms.

Community storm shelter. A storm shelter not defined as a “Residential storm shelter.” This includes storm shelters intended for use by the general public, by building occupants or a combination of both.

Residential storm shelter. A storm shelter serving occupants of *dwelling units* and having an *occupant load* not exceeding 16 persons.

Reason: Proposed changes to the next edition of ICC 500 include revising the definition to clarify the use of storm shelters. “Designating” a storm shelter is tied to classifying it for use after an event, which makes what makes it an emergency shelter that needs to be classified as Risk Category IV. This change focuses on the primary purpose of an ICC 500-compliant storm shelter, which is protection from severe winds during an event.

Cost impact: None. This is an editorial clarification with no change to code requirements.

CORRELATING CHANGE FOR THE IEBC

STORM SHELTER. A building, structure or portions thereof, constructed in accordance with ICC 500 ~~for protection from and designated for use during tornadoes,~~ hurricanes, ~~tornadoes or~~ and other severe windstorms.

Community storm shelter. A storm shelter not defined as a “Residential storm shelter.” This includes storm shelters intended for use by the general public, by building occupants or a combination of both.

Residential storm shelter. A storm shelter serving occupants of *dwelling units* and having an *occupant load* not exceeding 16 persons.

Reason: Proposed changes to the next edition of ICC 500 include revising the definition to clarify the use of storm shelters. “Designating” a storm shelter is tied to classifying it for use after an event, which makes what makes it an emergency shelter that needs to be classified as Risk Category IV. This change focuses on the primary purpose of an ICC 500-compliant storm shelter, which is protection from severe winds during an event.

Cost impact: None. This is an editorial clarification with no change to code requirements.

CORRELATING CHANGE FOR THE IPMC

STORM SHELTER. A building, structure or portion thereof, constructed in accordance with ICC 500 ~~for protection from, designated for use during tornadoes,~~ hurricanes, ~~tornadoes or~~ and other severe windstorms.

SECTION 310 STORM SHELTERS.

310.1 General. Community storm shelters shall be evaluated, maintained and repaired in accordance with this section and ICC 500.

310.2 Evaluation. Community storm shelters shall be evaluated annually, and when requested by the authority having jurisdiction, in accordance with ICC 500.

310.3 Maintenance and Repairs. Community storm shelters shall be maintained in an ~~operational-operable~~ condition. All structural ~~and operational~~ elements, impact-protective systems and critical support systems shall be repaired or replaced in accordance with ICC 500 where damaged or found to be inoperable.

Reason: Proposed changes to the next edition of ICC 500 include expanding evaluation, maintenance, and repair requirements to impact-protective systems (e.g., shutters over windows in hurricane and tornado shelters) and critical support systems (e.g., mechanical ventilation or emergency power systems). The ICC 500 committee modified the definition of a storm shelter to focus on the primary purpose of an ICC 500-compliant storm shelter, which is protection from severe winds during an event.

Cost impact: Increase. (Kim to get additional clarification on cost impact if this is a correlation item with ICC 500).

BCAC Egress Item 5 Control Vestibule

Draft revised Nov. 30, 2023

John Woestman, BHMA

E55-21 AMPC/D in vote [Item 5 E55-21 w PC.pdf](#)

Spring hearings – <https://www.cdpass.com/videos/4348/>

Fall Hearings - <https://www.cdpass.com/videos/4751/>

Add new definition as follows:

CONTROL VESTIBULE. A space with doors in series that are interlocked such that when one door is open other doors are restricted from opening.

Insert new text as follows:

1010.2.15 Control vestibule. Control vestibules shall be permitted in the means of egress for security, environmental control, or clinical needs in:

1. Groups F, H-3, H-4, H-5, I-1, I-2, and S where the occupant load of the room or space served by the control vestibule is less than 50.
2. Groups B and M where the occupant load of the room or space served by the control vestibule is 10 or less.

1010.2.15.1 Protection. Control vestibules shall be permitted where the building complies with either of the following:

1. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. An approved automatic smoke detection system in accordance with Section 907 is installed in the room or space served by the control vestibule.

1010.2.15.2 Egress path. The egress path from any point shall not pass through more than one control vestibule.

1010.2.15.3 Interlocking door operation. Where doors in the means of egress are configured as a control vestibule, the control vestibule door interlocking system shall provide for egress. The control vestibule shall comply with all of the following:

1. An approved override switch shall be provided on the egress side of each door of the control vestibule which unlocks the interlocked electric lock of that door.
 - a. Each override switch shall be located within 48 inches (1219 mm) of the door and 40 inches minimum to 48 inches maximum (1016 mm to 1219 mm) above the floor.
 - b. Signage shall be provided with instructions on the use of the interlock override switch.
 - c. When operated, the override switch shall result in direct interruption of power to the interlocked electric lock — independent of other electronics — and the interlocked electric lock shall remain unlocked for not less than 30 seconds.

Exception: Where the control vestibule is designed to impede occupant egress for security reasons, the override switches for the door interlocks shall be permitted to be moved to approved alternate locations.

2. Upon activation of the automatic sprinkler system or automatic smoke detection system the interlock function of the doors of the control vestibule shall deactivate.
3. Upon loss of power to the interlock function of the doors, the interlock function of the door locking system of the control vestibule shall deactivate.

4. Where a control vestibule serves a room or space equipped with an *emergency alarm system for hazardous materials*, the interlock function of the doors shall deactivate when such *emergency alarm system* is activated.
5. The doors of the control vestibule shall be self-closing.
6. The doors of the control vestibule shall swing in the direction of egress travel.

Exception: Power-operated doors in accordance with Section 1010.3.2.

7. The electro-mechanical or electromagnetic locking devices shall be listed in accordance with either UL 294 or UL 1034.

Reason:

Control vestibules are being incorporated in the means of egress in a variety of occupancies. A control vestibule has doors in series which are interlocked such that when one door of a control vestibule is open, the other door in series in the control vestibule is temporarily prevented from being opened.

The IBC is currently silent regarding requirements and guidance for control vestibules. This proposal does not require installation of control vestibules, but offers requirements (guidance) for where control vestibules are incorporated in the means of egress.

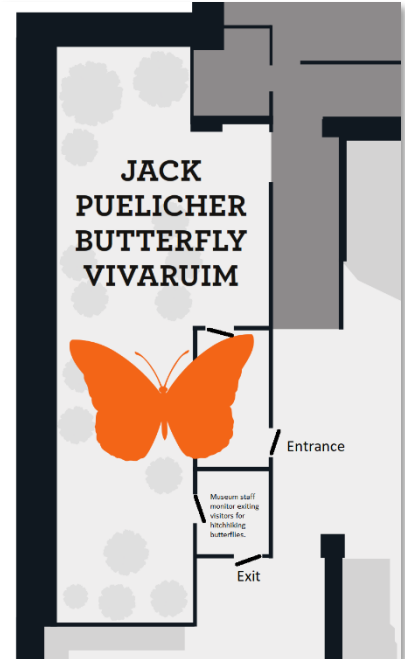
This proposal addresses egress related requirements for control vestibules. Control vestibules which provide security or access control on the ingress side of doors into a building or into a space within a building are more common than control vestibules on the egress side of doors in the means of egress from a space or from a building. Requirements for the access-side of control vestibules is typically outside the scope of the IBC. Thus access-side control vestibules are not regulated or prohibited by the IBC provided all requirements for egress are complied with. This proposal addresses control vestibules in the means of egress with egress-side requirements.

Control vestibules must provide for egress. Together, the definition and proposed requirements provide for egress where control vestibules are installed.

The occupancy groups and maximum occupant loads in this proposal (in 1010.2.15) are the result of discussions and votes during the Committee Action Hearing and Public Comment Hearing of the 2021 ICC code development cycle. And the result of subsequent suggestions and recommendations by stakeholders.

Control vestibules are most commonly configured as a space with two doors in series. But, some control vestibules are configured with more than one inner door and / or more than one outer door. For example, where a control vestibule is required to help keep clean rooms clean, there may be inner doors from more than one clean room opening into the control vestibule, and one outer door for leaving the control vestibule in the direction of egress.

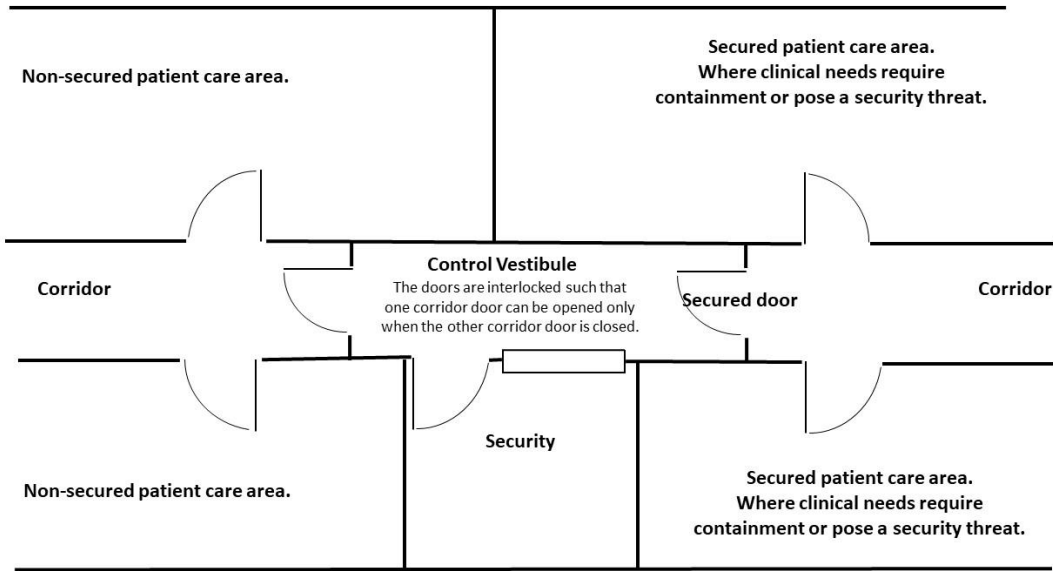
Control vestibules are different than sallyports, which are defined in the IBC and permitted in Group I-3 occupancies. Group I-3 includes correction centers, detention centers, jails, prisons, and similar uses. A sallyport is a security vestibule which prevents unobstructed passage. A control vestibule is intended to allow unobstructed passage but prevents more than one door of doors in series to be open at the same time.



Milwaukee Public Museum Butterfly Vivarium

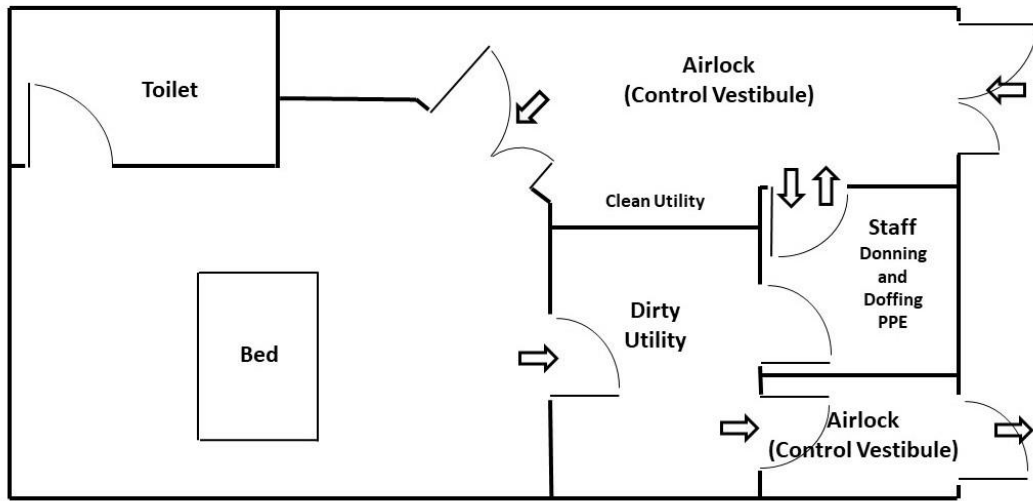
This picture and floor layout of the butterfly vivarium at the Milwaukee (Wisc.) Public Museum illustrate a potential application of a control vestibule. The vestibule and doors for one-way passage into the butterfly vivarium are currently configured as an “on your honor” control vestibule. The sign on the inner door advises visitors to the vivarium to wait for the outer door to close before opening the second door to enter. With electrical locks on the two doors, and with related controls, this space could be configured as a control vestibule. This proposal addresses requirements of control vestibules from an egress perspective, but not from an ingress perspective. In this butterfly vivarium example, the code’s requirements affect how the control vestibule would be configured to ensure egress.

The one-way out vestibule on the exit side of this vivarium (see the floor plan) is also an “on your honor” control vestibule. A museum staff person is stationed inside the exit vestibule tasked with ensuring butterflies do not escape with visitors, and with ensuring in each of these two vestibules that both doors in the vestibule are not open at the same time. Installing electrical interlocks and controls on the doors of these vestibules to create control vestibules would relieve the staff person from carefully watching the doors and enable the staff person to interact more with the visitors.



A control vestibule may be used in healthcare applications to prevent patients in the secured patient care area from making a successful "run for it" when the secured door is opened.

This is an example of an application of a control vestibule in the corridor between secured and non-secured patient care areas in a healthcare setting. The secured patient care area is for patients with clinical needs that require containment or pose a security threat.



Quarantine Suite

In healthcare, where it's critical to manage airflow into and out of the patient treatment space, quarantine suites may be configured with airlocks with interlocked doors (i.e. control vestibules). The airlock doors in the sketch would be configured such that only one door (or one pair of doors) in the airlock could be open at a time.

Cost Impact:

The code change proposal will not increase or decrease the cost of construction.

The IBC is currently silent regarding control vestibules, and control vestibules are not proposed to be required.

Today, where control vestibules are optionally constructed, alternative means and methods are typically used for code compliance.

PMGCAC Item 20 IMC Section 402 needs revised based upon how ASHRAE 62.1-2022 deals with natural ventilation.

Completed proposal needs to be forwarded to the BCAC for comment.

M??-24 Part I

International Mechanical Code

Revise as follows:

402.1 Natural Ventilation for occupancy groups other than R and I-1 occupancy group.
Natural ventilation for occupancy groups other than R and I-1 shall comply with the natural ventilation procedure provisions of ASHRAE 62.1.

402.2 Natural Ventilation for use in R and I-1 occupancy groups. Natural ventilation for R and I-1 occupancy groups shall comply with Sections 402.2.1 through 402.2.4

[BG] ~~402.1~~ 402.2.1 Natural ventilation. 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.

[BG] ~~402.2~~ 402.2.2 Ventilation area required. The minimum openable area to the outdoors shall be 4 percent of the floor area being ventilated.

[BG] ~~402.3~~ 402.2.3 Adjoining spaces. Where rooms and spaces without openings to the outdoors are ventilated through an adjoining room, the opening to the adjoining rooms shall be unobstructed and shall have an area not less than 8 percent of the floor area of the interior room or space, but not less than 25 square feet (2.3 m²). The minimum openable area to the outdoors shall be based on the total floor area being ventilated.

Exception: Exterior openings required for ventilation shall be permitted to open into a thermally isolated sunroom addition or patio cover, provided that the openable area between the sunroom addition or patio cover and the interior room has an area of not less than 8 percent of the floor area of the interior room or space, but not less than 20 square feet (1.86 m²). The minimum openable area to the outdoors shall be based on the total floor area being ventilated.

[BG] ~~402.4~~ 402.2.4 Openings below grade. Where openings below grade provide required natural ventilation, the outdoor horizontal clear space measured perpendicular to the opening shall be one and one-half times the depth of the opening. The depth of the opening shall be measured from the average adjoining ground level to the bottom of the opening.

M??-24 Part II

International Building Code

Revise as follows:

1202.5 Natural ventilation for all occupancy groups. Natural ventilation for all occupancy groups shall be in accordance with Sections 1202.5.1 through 1202.5.2.4.

1202.5.1 Natural Ventilation for occupancy groups other than R and I-1 occupancy group. Natural ventilation for occupancy groups other than Residential and I-1 shall comply with the natural ventilation procedure provisions of ASHRAE 62.1.

1202.5.2 Natural Ventilation for use in R and I-1 occupancy groups. Natural ventilation for Residential and I-1 occupancy groups shall comply with Sections 1205.5.2.1 through 1205.5.2.4

1202.5.2.1 Natural ventilation. 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.

1202.5.4 2.2 Ventilation area required.

The openable area of the openings to the outdoors shall be not less than 4 percent of the floor area being ventilated.

1202.5.4.1 2.3 Adjoining spaces.

Where rooms and spaces without openings to the outdoors are ventilated through an adjoining room, the opening to the adjoining room shall be unobstructed and shall have an area of not less than 8 percent of the floor area of the interior room or space, but not less than 25 square feet (2.3 m²). The openable area of the openings to the outdoors shall be based on the total floor area being ventilated.

Exception: Exterior openings required for *ventilation* shall be allowed to open into a *sunroom* with *thermal isolation* or a patio cover provided that the openable area between the *sunroom* addition or patio cover and the interior room shall have an area of not less than 8 percent of the floor area of the interior room or space, but not less than 20 square feet (1.86 m²). The openable area of the openings to the outdoors shall be based on the total floor area being ventilated.

1202.5.4.2 2.4 Openings below grade.

Where openings below grade provide required natural *ventilation*, the outside horizontal clear space measured perpendicular to the opening shall be one and one-half times the depth of the opening. The depth of the opening shall be measured from the average adjoining ground level to the bottom of the opening.

Reason: In climate zones with outdoor ambient temperature extremes, where the design professional has elected to employ natural ventilation, although in compliance with existing code language in theory, practical application and utilization of openable doors and windows as the sole source of ventilation air, is not consistently employed in practice, during months when either a heating or cooling system is conditioning an occupied space. Section 6.4.1 *Prescriptive Compliance Path*, requires a mechanical ventilation system in conjunction with the natural ventilation. This mechanical ventilation system must comply with either section 6.2 *Ventilation*

Rate Procedure and/or section 6.3 *Indoor Air Quality Procedure* of ASHRAE 62.1-2022. Under the exceptions provided to 6.4.1, IF a design professional wanted to delete the redundant mechanical system required, they must provide controls that ensure the openings are either open during times of occupancy OR are fixed as permanently open.

Consequently, 62.1-2022 section 6.4 (Natural Ventilation Procedure) provides both engineered (6.4.2) and prescriptive (6.4.1) options for compliance, which ensures proper natural ventilation despite outdoor ambient temperature and without sole reliance on openable doors and windows, absent extensive design calculations employed in the engineered method.

With the challenges faced in terms of indoor air quality, highlighted during the COVID pandemic, deficiencies in both existing and new HVAC systems became apparent. These challenges created a conflict between HVAC systems and the organic need to ventilate areas, leading to inconsistent temperature control and the decreased energy efficiency of HVAC systems. ASHRAE 62.1-2022 provides clear methods for the utilization of natural ventilation, accounting for the challenges faced during this crisis.

It is intended that IMC new sections 402.1 and 402.2 be [BG] controlled.

For reference:

Group R-1 is multifamily (transient) such as hotels and motels.

Group R-2 is multifamily (nontransient) such as apartment buildings.

Group R-3 is for one- and two-family homes and townhouses outside the scope of the IRC, for example 4-story townhouses.

Group R-4 and I-1 are assisted living facilities, group homes, etc.

From the commentary: Groups I-1 and R-4 are similar facilities that differ only by the number of residents receiving care. Group I-1 has more than 16 residents while Group R-4 has six to 16 residents.

August 10, 2023 Cost impact and Substantiation suggested by Kalakay/Gay

Cost Impact: Will increase the cost of construction.

Substantiation:

This proposal will increase the cost of construction due to additional openings for the conveyance of outdoor air, meant for ventilation, required to comply with ASHRAE 62.1 2022. With due attention to ASHRAE 62.1 2022 section 6.4, in the planning phase, additional cost may be limited. Due to the unlimited variations in building design, placing a predetermined dollar amount on the net cost of this

proposal is impossible. However, when considering the annual financial impact of Sick Building Syndrome, the COVID pandemic, annual influenza infections and other airborne illnesses which directly impacts individuals, municipalities, and corporations alike, though undefinable, the financial savings would exponentially outweigh the initial cost increase for construction.

Example 1: According to the World Economic Forum the COVID pandemic alone cost the world 11 trillion dollars for the pandemic response with an additional 10 trillion in lost earnings.

Example 2: According to the Elsevier publication *Building and Environment Journal Vol. 188* dated 1-15-21 in the US alone, the annual cost attributed to sick building syndrome in commercial workplaces is estimated at between 10 and 70 billion dollars. On average workers spend 90 percent of their time indoors while on the job.

Example 3: According to the Elsevier article dated June 22, 2018, and titled: *Economic Burden of seasonal influenza in the United States*; the total annual cost burden of seasonal influenza in the US stands at 11.2 billion dollars.

Item 22 ISPSC Add new standard PHTA 2 for public pool maintenance and upkeep.

Standard PHTA 2 can be viewed for free at this link:

https://issuu.com/thepta/docs/phta-icc-2_2023_standard_04-03-23_digital_pdf-prot

CAC APPROVED CODE TEXT

This code text has been checked against 2024 code.

ISPSC-Part I

WILL THIS NEED TO HAVE A SCOPE SECTION ADDED? -Fred

Add new text:

SECTION 327 **OPERATIONS AND MAINTENANCE**

326.1 Public pool and spa operation and maintenance. Public pools, public spas and aquatic recreation facilities shall be operated and maintained in accordance with PHTA/ICC-2.

Add standard:

PHTA/ICC

ANSI/PHTA/ICC-2-2023 Public pool and spa operations and maintenance

Reason: This proposal seeks to incorporate the *ANSI/PHTA/ICC-2 2023 Standard for Public Pool and Spa Operations and Maintenance* into the International Swimming Pool and Spa Code to ensure maintenance and operations requirements and guidance exist for public pools, public spas and aquatic recreation facilities. Seeing that these types of aquatic venues are governed under Chapters 4, 5, and 6, it makes sense to put the requirement under Chapter 3, General Compliance, so it can apply to all three types.

The PHTA-2 is intended to cover public/commercial aquatic venues operation and maintenance, as a resource for jurisdictions seeking guidance on this topic. This Standard can then be used by state and local authorities as a health and safety document for the operation and maintenance of all types of public aquatic venues. Industry partners such as commercial pool and spa service companies, water park operators and public pool operators will then be required to use this Standard as the benchmark for the minimum standards to operate and maintain public aquatic venues. In many states building and health officials regulate public pools and spas together, by

adding this Standard into the ISPSC, we are providing one code that covers design, construction, operation and maintenance. This will make it easier for the building and health officials by having all requirements in one place. Further, public health officials can adopt this Standard through adoption of the ISPSC when adopting the Code by reference in their rule or ordinance.

Cost Impact: : The code change proposal will not increase or decrease the cost of construction.

Substantiation: This proposal will not increase the cost of construction because no additional labor, materials, equipment, appliances, or devices are mandated beyond what is currently required by the code.

IPMC-Part II

THIS PART WILL HAVE TO BE SENT OVER TO THE BCAC FOR BLESSING - Fred

Add new text:

IPMC 303.3 Public pool and spa operation and maintenance. Public pools, public spas and aquatic recreation facilities shall be operated and maintained in accordance with the *International Swimming Pool and Spa Code*.

Add standard:

PHTA/ICC

ANSI/PHTA/ICC-2-2023 Public pool and spa operations and maintenance

Reason: This proposal seeks to incorporate the *ANSI/PHTA/ICC-2 2023 Standard for Public Pool and Spa Operations and Maintenance* into the International Property Maintenance Code to ensure maintenance and operations requirements and guidance exist for public pools, public spas and aquatic recreation facilities. The PHTA-2 is intended to cover public/commercial aquatic venues operation and maintenance, as a resource for jurisdictions seeking guidance on this topic. This Standard can then be used by state and local authorities as a health and safety document for the operation and maintenance of all types of public aquatic venues. Industry partners such as commercial pool and spa service companies, water park operators and public pool operators will then be required to use this Standard as the benchmark for the minimum standards to operate and maintain public aquatic venues.

By adding this Standard into the IPMC, we are following the intent of this Code "to ensure public health, safety and welfare insofar as they are affected by continued occupancy and maintenance

of structures and premises" are followed. Further, as public health officials adopt this Standard by reference in their rule or ordinance, this ensures harmonization with what building departments have adopted, if they adopt the IPMC in their jurisdiction.

Cost Impact: The code change proposal will not increase or decrease the cost of construction.

Substantiation: This proposal will not increase the cost of construction because no additional labor, materials, equipment, appliances, or devices are mandated beyond what is currently required by the code.