

Explanation of Proposed Amendments to the 2024 Building Codes



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Amendments to the 2024 International Building Code (IBC)

These amendments to the IBC apply to multi-family residential buildings and commercial buildings. They do not apply to one- and two-family (duplex) dwellings. Chapter 1 of the IBC includes administrative provisions which apply to all of our adopted codes.

IBC Section 101.1 Proposed Amendment

Original Code Text:

101.1 Title.

These regulations shall be known as the Building Code of [name of jurisdiction], hereinafter referred to as “this code.”

PROPOSED AMENDMENT:

Section 101.1 is amended to read as follows:

101.1 Title. These regulations shall be known as the Building Code of the City of Glendale, Arizona, hereinafter referred to as "this code."

Justification:

The code requires that the adopting jurisdiction be identified by name.

Included in 2018 Code Amendments: YES

IBC Section 103.1 Proposed Amendment

Original Code Text:

103.1 Creation of enforcement agency.

The [insert name of department] is hereby created and the official in charge thereof shall be known as the building official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

PROPOSED AMENDMENT:

Section 103.1 is amended to read as follows:

103.1 Creation of Enforcement Agency. The Building Safety Division is hereby created and the official in charge thereof shall be known as the building official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

Justification:

The code requires the enforcing agency (city department) to be identified.

Included in 2018 Code Amendments: YES

IBC Section 104.2.3 Proposed Amendment

Original Code Text:

104.2.3 Alternative materials, design and methods of construction and equipment.

The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved.

Exception: Performance-based alternative materials, designs or methods of construction and equipment complying with the International Code Council Performance Code. This exception shall not apply to alternative structural materials or to alternative structural designs.

PROPOSED AMENDMENT:

Section 104.2.3, Alternative materials, design and methods of construction and equipment, delete the Exception.

Justification:

The City of Glendale is not adopting the International Code Council Performance Code. The International Building Code (IBC) as written already provides the flexibility and allowances to consider alternative materials, designs and methods of construction without the adoption of this additional code book.

Included in 2018 Code Amendments: NO

This is a new provision in the 2024 IBC.

IBC Section 104.7 Proposed Amendment

Original Code Text:

[A] 104.7 Official records.

The building official shall keep official records as required by Sections 104.7.1 through 104.7.5. Such official records shall be retained for not less than 5 years or for as long as the building or structure to which such records relate remains in existence, unless otherwise provided by other regulations.

PROPOSED AMENDMENT:

Section 104.7 Official records is amended to read as follows:

The building official shall keep official records as required as required by Sections 104.7.1 through 104.7.5. Such official records shall be retained in accordance with the regulations of the State of Arizona and City Clerk's Office.

Justification:

Records retention in the City of Glendale is governed by the State of Arizona laws and corresponding City Clerk's Office policies.

Included in the 2018 Code Amendments: NO

This is a new provision in the 2024 IBC.

IBC Section 104.8 Proposed Amendment

Original Code Text:

104.8 Liability. The building official, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered personally liable, either civilly or criminally, and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of any act or omission in the discharge of official duties.

PROPOSED AMENDMENT:

Section 104.8, Liability is amended by replacing “member of the board of appeals” with “court hearing officer” in the first sentence.

Justification:

Glendale uses a hearing officer to appeal decisions of the building official, not a board of appeals.

Included in the 2018 Code Amendments: YES

IBC Section 105.2 Proposed Amendment

Original Code Text:

105.2 Work exempt from permit.

2. Fences, other than swimming pool barriers, not over 7 feet (2134 mm) high.

PROPOSED AMENDMENT:

Section 105.2, Work Exempt from Permit, Item 2, is amended to read as follows:

2. Fences, other than swimming pool barriers and perimeter subdivision fences, not over 7 feet (2134 mm) high.

Justification:

Glendale requires building permits for all subdivision perimeter fences because of their high visibility from public streets, therefore they are not exempt from permit based on a city council request from several years ago.

Included in the 2018 Code Amendments: YES

IBC Section 105.2 Proposed Amendment

Original Code Text:

There is no original code text. This amendment is an addition to the code.

PROPOSED AMENDMENT:

Section 105.2, Work exempt from permit, Building, add the following item:

14. Hoophouses and polyhouses used exclusively for producing and storing live plants, constructed in accordance with A.R.S. 9-469. Mechanical, plumbing and electrical systems constructed in these structures shall require the appropriate permits in accordance with this code.

Justification:

This amendment is required to align the code with State of Arizona law.

Included in the 2018 Code Amendments: NO

This is a new State law.

IBC Section 105.6 Proposed Amendment

Original Code Text:

There is no original code text. This amendment is an addition to the code.

PROPOSED CODE TEXT:

Section 105.6, Suspension or Revocation is amended by adding the following:

It shall be unlawful to proceed with any work for which a permit was issued after notice of permit suspension or revocation is served on the permit holder, the owner, or the person having responsible charge of the work. Reinstatement of a suspended permit shall be by written notice from the building official authorizing work to resume, with or without conditions. Revoked permits shall be canceled and the permit fee shall not be refunded.

Justification:

This text is added to clarify our fee refund policy in accordance with our published Fee Schedule.

Included in the 2018 Code Amendments: YES

IBC Section 109 Proposed Amendment

Original Code Text:

The original code text is replaced due to conflicts with the Glendale Fee Schedule.

PROPOSED AMENDMENT:

Section 109 is deleted and replaced by the following:

Section 109 Fees

109.1 Fee Schedule. Fees shall be assessed in accordance with the provisions of this section and shall be as established by council resolution.

109.2 Permit Fees. Fees shall be as established by council resolution.

109.3 Plan Review Fees. When submittal documents are required by Section 107 of this code, a plan review fee shall be paid at the time of submitting the documents for plan review. The plan review fees specified in this section and as by council resolution are separate fees from, and in addition to, the permit fees specified in Section 109.2 of this code.

109.4 Building Permit Valuations. The determination of valuation under any provisions of the code shall be made by the building official. The valuation to be used in computing the building permit and building plan review fees shall be the total value of all construction work including all materials, labor, overhead and profit for which the permit is issued including all finish work, painting, roofing, electrical, plumbing, heating, air-conditioning, elevators, fire- extinguishing systems, and other permanent equipment.

109.5 Work Commencing Before Permit Issuance. Whenever work for which a permit is required by this code has been commenced without first obtaining a permit, a special investigation shall be made before a permit may be issued for such work.

An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be as adopted by council resolution. The payment of such investigation fee shall not exempt an applicant from compliance with all other provisions of either this code or other adopted laws and ordinances of this city.

109.6 Reinspection fees. Permit fees provide for customary inspections only. A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which inspection is called is not complete or when corrections called for are not made. Reinspection fees may be assessed when the inspection record card is not posted or otherwise readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the building official. In instances where reinspection fees have been assessed, additional inspection of the work will not be performed until the required fees have been paid.

Justification:

This amendment is provided to align the code with the Fee Schedule.

Included in the 2018 Code Amendments: YES

IBC Section 110.1 Proposed Amendment

Original Code Text:

This text is added to the General requirements.

PROPOSED AMENDMENT:

Section 110.1, Inspections, General is amended by adding the following paragraph:

Property owners shall obtain and display on the residence, business, or otherwise, the correct building number or numbers as assigned to such property(ies) by the Planning Department or functional equivalent in accordance with established street assignment policy, prior to final inspection and /or issuance of a certificate of occupancy. The building numbers shall be of a durable material, permanently attached to the building and must be readily distinguished and readable from the nearest paved public/common roadway fronting that property. The size of the building numbers shall comply with the city's adopted fire code and its amendments.

Justification:

This amendment is added text to clarify Glendale's building address policy.

Included in 2018 Code Amendments: YES

IBC Section 110.3.3 Proposed Amendment

Original Code Text:

110.3.3 Lowest floor elevation.

In flood hazard areas, upon placement of the lowest floor, including the basement, and prior to further vertical construction, the elevation certification required in Section 1612.4 or the *International Residential Code*, as applicable, shall be submitted to the building official.

PROPOSED AMENDMENT:

Section 110.3.3, Lowest Floor Elevation is amended as follows:

Replace “building official” with “City Engineer or functional equivalent.”

Justification:

In Glendale, the flood elevation certificate is submitted to the City Engineer, not the Building Official.

Included in the 2018 Code Amendments: NO

IBC Section 110.3.4 Proposed Amendment

Original Code Text:

110.3.4 Frame inspection.

Framing inspections shall be made after the roof deck or sheathing, all framing, fire-blocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are approved.

PROPOSED AMENDMENT:

Section 110.3.4, Frame Inspection is amended by adding the following sentence:

The building shall be weather-tight at the time of the frame inspection.

Justification:

This requirement is added to align with Glendale inspection policy.

Included in the 2018 Code Amendments: YES

IBC Section 110.3.11 Proposed Amendment

Original Code Text:

110.3.11 Special inspections.

For special inspections, see Chapter 17.

PROPOSED AMENDMENT:

Section 110.3.11 is deleted and amended by the following text:

110.3.11 Special Inspections.

In addition to the inspections required by Section 110, the engineer or architect of record acting as the owner's agent shall employ one or more special inspectors who shall provide inspections during construction for types of work outlined in Chapter 17 and as outlined below:

110.3.11.1 Electrical Special Inspections.

1. Ground-fault protection performance tests for equipment are required to be provided with ground-fault protection.
2. Switchboards, panelboards, motor control centers, and other equipment rated 1,000 amps or more; or over 600 volts.
3. Emergency and standby power systems, including switchboards, panel boards, distribution boards, transfer equipment, power source, conductors, fire pumps, and exhaust and ventilation fans.

110.3.11.2 Electrical Observation. Electrical observation shall be provided for the following installations:

1. Installation or alteration of that portion of health care facility electrical systems which fall within the scope of Article 517, Chapter III of the adopted National Electric Code where critical care areas are present.
2. Installations or alterations of high-voltage electrical systems, which exceed 600 volts. Installations or alterations of electrical systems within locations classified as hazardous by the provisions of adopted the National Electric Code, or the International Fire Code, except for gasoline dispensing installations and systems located within storage garages, repair garages or lubritoriums.
3. When such observation is specifically required by the building official.

The owner shall employ the engineer responsible for the electrical design, or another engineer designated by the engineer responsible for the electrical design to perform visual observation of complex electrical equipment and systems for general conformance to the interconnection of equipment. Electrical observation shall be performed at significant

stages of the construction and when the installation is complete and ready to be inspected by the building official.

Justification:

The reference to Chapter 17 is retained. These additional requirements align with Glendale electrical inspection policies.

Included in 2018 Code Amendments: YES

IBC Section 110.3.13 Proposed Amendment

Original Code Text:

There is no original text. This is an added subsection.

PROPOSED AMENDMENT:

Section 110.3.13 is added as follows:

110.3.13 Building Service Equipment Inspections. All building service equipment inspections for which a permit is required by this code shall be inspected by the building official. No portion of any building service equipment intended to be concealed by any permanent portion of the building shall be concealed until inspected and approved. When the installation of any building service equipment is complete, an additional and final inspection shall be made. Building service equipment regulated by the technical codes shall not be connected to the water, fuel or power supply or sewer system until authorized by the building official.

1. Electrical inspections. A rough-in inspection is required for all conduit, semi-rigid piping or wiring after installation but prior to being concealed. Final inspection is required when all conduit, wires, fixtures and equipment including covers, have been installed and connected.
2. Mechanical inspections. All mechanical equipment and systems for which a permit is required by the code, including all associated ductwork, flues, condensate and refrigeration lines, shall be subject to inspection and shall remain accessible and exposed for inspection purposes until approved.
3. Plumbing inspections. A rough-in or underground inspection is required for all sewer, drainage and vent piping, and for all water and gas distribution systems prior to their being buried or concealed. A final inspection is required when all fixtures are set and operating or ready to operate. Tests shall be performed as required by the currently adopted plumbing code.

Justification:

This amendment aligns the code with Glendale inspections policies and clarifies when inspections may be requested for mechanical, plumbing and electrical systems.

Included in 2018 Code Amendments: YES

IBC Section 111.5 Proposed Amendment

Original Code Text:

There is no original code text. This is an added subsection.

PROPOSED AMENDMENT:

Section 111.5 is added as follows:

111.5 Certificate of Completion for Shell Buildings. The building official is authorized to issue a Certificate of Completion for all commercial shell/ non-occupied buildings and/or structures. This document will be utilized to indicate the building official's approval and completion of non-occupied buildings and/or structures also defined or labeled as "Shell Buildings, Vanilla Shell, Grey Shell, Equipment Installation and Spec Suites."

The Certificate of Completion document must specify the following:

1. Specify "No occupancy" or "Occupancy of one (1) person allowed only for maintenance, security or fire watch"
2. Certificate/ permit number
3. Date
4. Premises, address, suite number
5. Legal description, Assessor's Parcel Number (APN)
6. Type of construction
7. Occupancy group: UNOCCUPIED
8. Owner
9. General contractor
10. Date of permit
11. Valuation
12. Comments (building area, AFES, occupant load)
13. Other conditions (specified by the building official)

Justification:

This updates the code based upon a Technical Bulletin previously issued by the building official. The code only stipulates a Certificate of Occupancy. This amendment provides a Certificate of Completion which is useful for the completion of a shell building, even though it is not ready for occupancy. This allows the shell building contractor to finalize his contract and its associated construction financing.

Included in the 2018 Code Amendments: NO

This is a new code subsection.

IBC Section 113 Proposed Amendment

Original Code Text:

The original code text for Means of Appeals is based upon a board of appeals which does not exist in Glendale. See justification below.

PROPOSED AMENDMENT:

113 MEANS OF APPEALS

113.1 General. Decisions of the building official shall be appealed to Glendale City Court. An application for an appeal of any order, decision or interpretation made by the building official shall be filed in writing, along with the appropriate fee established by resolution or pursuant to Glendale City Code Sec. 2-3, and shall be delivered to the Court and to the building official within thirty (30) calendar days of the date of the order, decisions or interpretation. The fee shall not be refundable. The decision of the building official may be reversed or modified by the Court upon finding that:

- a. The decision of the building official is not supported by a reasonable interpretation and application of the city code to the specific facts presented, or the city code does not apply to the facts presented.
- b. The reversal or modification of the building official's decision will not create or manifest injustice or affect the intent of the city code.
- c. The reversal of the building official's decision will not be detrimental to the public health, safety and welfare.

113.2 Limitations of Authority. The Court shall have no authority relative to interpretation of the administrative provisions of the codes set forth in Sec. 9-16, nor shall the Court be empowered to waive the requirements of the codes set forth in Sec. 9-16.

Justification:

In Glendale, appeals of decisions of the building official are processed through the Glendale City Court and determined by a court hearing officer, not by a board of appeals as stipulated in the building code.

Included in the 2018 Code Amendments: YES

IBC Section 116 Proposed Amendment

Original Code Text:

116.1 Unsafe conditions. Structures or existing equipment that are or hereafter become unsafe, insanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or that constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the building official deems necessary and as provided for in this section. A vacant structure that is not secured against unauthorized entry shall be deemed unsafe.

PROPOSED CODE AMENDMENT:

Section 116, Unsafe Structures and Equipment is amended as follows:

Section 116.1, Unsafe conditions. The requirements for the abatement of unsafe buildings, structures and equipment shall be governed by the 2024 International Property Maintenance Code and its related amendments.

The balance of the text of IBC Section 116 is deleted.

Justification:

The requirements for the abatement of unsafe structures are deferred to the *International Property Maintenance Code (IPMC)*, as adopted and amended by Glendale. The IPMC provides more comprehensive and detailed requirements than the *International Building Code* for this subject. This replaces the amended IBC Section 116 from the previous 2018 code adoption.

Included in the 2018 Code Amendments: NO

IBC Section 201.4 Proposed Amendment

Original Code Text:

201.4 Terms not defined.

Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies.

PROPOSED AMENDMENT:

Section 201.4, Terms Not Defined is amended by adding to the end of this subsection:

Miriam-Webster's Unabridged Dictionary of the English Language shall be considered as providing ordinarily accepted meanings.

Justification:

This amendment clarifies that for terms not defined by the building code, Glendale shall refer to the *Miriam-Webster Dictionary* as the source for definitions.

Included in the 2018 Code Amendments: YES

IBC Section 202 Proposed Amendment

Original Code Text:

ELECTRIC VEHICLE CHARGING STATION. One or more vehicle spaces served by an electric vehicle charging system.

PROPOSED AMENDMENT:

Section 202, Definitions is amended by revising the following definition:

ELECTRIC VEHICLE CHARGING STATION. One or more vehicle spaces served by an electric vehicle charging system, including the vehicle charging system.

Justification:

This amendment clarifies that the charging equipment is part of the electric vehicle charging station, not just the parking space. Thus, this includes the equipment to meet code accessibility requirements (for persons with physical disabilities).

Included in the 2018 Code Amendments: NO

This is a new definition in the code.

IBC Section 202 Proposed Amendment

Original Code Text:

EXISTING BUILDING. A building erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.

EXISTING STRUCTURE. A structure erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.

PROPOSED AMENDMENT:

Section 202, Definitions is amended by revising the following definitions:

EXISTING BUILDING. A building erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued and all required inspections have been approved.

EXISTING STRUCTURE. A structure erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued and all required inspections have been approved.

Justification:

These amended definitions add the stipulation that an existing building (or structure) is required to have passed all inspections to be legally considered as “existing” by the code, and therefore qualify for the exemptions granted to an “existing building.”

Included in the 2018 Code Amendments: NO

IBC Section 406.3 Proposed Amendment

Original Code Text:

There is no original code text. This is an added subsection.

PROPOSED AMENDMENT:

Section 406.3, Private Garages and Carports is amended by adding the following subsection:

406.3.4 Open Carports. Carports for other than single family residential use which are open on all sides and constructed entirely of noncombustible materials, except for an approved fascia, shall not exceed 5,000 square feet and shall be located no closer than 3 feet to an adjacent lot line, nor closer than 6 feet to any projecting element of an adjacent building or structure. The edge of the carport roof shall be used to measure the separation distance to adjacent lot lines, buildings or structures.

Justification:

The code limits the area of carports not associated with a single-family residence to 3,000 square feet (without fire wall separation). This increase to 5,000 square feet is consistent with the Glendale Fire Code. These structures do not represent a great fire hazard as they are completely open and non-combustible. These structures are typically used as parking lot shade structures.

Included in the 2018 Code Amendments: YES

IBC Section 406.3.5 Proposed Amendment

Original Code Text:

There is no original code text. This is an added code subsection.

PROPOSED AMENDMENT:

Section 406.3, Private Garages and Carports is amended by adding the following subsection:

406.3.5 Electric vehicle (EV) receptacle outlets in private garages. In a minimum of 10% of the attached private, enclosed garages and in a minimum of 10% of the detached private, enclosed garages, associated with Group R-2 occupancy dwelling units, provide a minimum of one EV-ready receptacle outlet in each garage, not more than 48 inches above and not less than 18 inches above the floor. EV receptacle outlets serving accessible parking spaces shall be installed in accordance with Section 1107 and ANSI A117.1. Each EV-ready receptacle outlet installation shall include a junction box, conductors, raceway and a dedicated minimum 50-ampere, 240-volt circuit breaker. All components shall be installed in compliance with the *National Electrical Code*.

Justification:

This amendment is an added code requirement to install an EV-ready charging receptacles in private garages associated with multi-family dwelling units. (These are classified as group R-2 occupancy in the IBC.) This mandate does not exist in the IBC as published. This amendment is added at the request of the City Manager's Office.

Included in the 2018 Code Amendments: NO

This is an entirely new code section.

IBC Section 420.4 Proposed Amendment

Original Code Text:

[F] 420.4 Automatic sprinkler system.

Group R occupancies shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.2.8. Group I-1 occupancies shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.2.6. Quick-response or residential automatic sprinklers shall be installed in accordance with Section 903.3.2.

PROPOSED AMENDMENT:

Section 420.4 Automatic sprinkler system. Revise the first sentence to read:

Other than where preempted by Arizona State Law, Group R occupancies shall be equipped throughout with an automatic sprinkler system in accordance Section 903.2.8 and Glendale City Code Section 16-52.

Justification:

The building code (IBC) requires that fire sprinklers shall be installed in all Group R (residential) occupancies. However, Arizona state statutes dictate that local jurisdictions shall not require fire sprinklers in single-family detached homes, townhouses, duplexes, triplexes and fourplexes. This amendment incorporates the state law preemption, while maintaining the requirement for fire sprinklers in multi-family dwelling buildings with 5 or more dwelling units.

Included in 2018 Code Amendments: NO

The state law acknowledged by this amendment was passed in 2024.

IBC Section 707.3.12 Proposed Amendment

Original Code Text:

There is no original code text. This is an added subsection.

PROPOSED AMENDMENT:

Section 707.3.12 Electrical Rooms with Service Entrance Equipment is added and shall read as follows:

Fire barrier walls and/ or fire-resistance-rated horizontal assemblies with a fire-resistance rating of one hour shall be provided to separate an electrical room containing service entrance equipment from adjacent rooms and spaces.

Justification:

The requirement to separate rooms containing electrical service equipment from adjacent spaces with 1-hour fire-resistance rated construction is dictated by the local electrical utility companies.

Included in the 2018 Code Amendments: YES

IBC Section 708.3 Proposed Amendment

Original Code Text:

708.3 Fire-resistance rating. Fire partitions shall have a fire-resistance rating of not less than 1 hour.

Exceptions:

1. Corridor walls permitted to have a 1/2-hour fire-resistance rating by Table 1020.2.
2. Dwelling unit and sleeping unit separations in buildings of Types IIB, IIIB and VB construction shall have fire-resistance ratings of not less than 1/2 hour in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

PROPOSED AMENDMENT:

Section 708.3, Fire-resistance rating; the first paragraph is amended as follows:

Fire partitions shall have a fire-resistance rating of not less than 1 hour except when required by Section 420.2 in a building that does not have an automatic sprinkler system in accordance with Section 903.2.8. Where fire partitions are required by Section 420.2 and the building does not have an automatic sprinkler system the fire-resistance rating shall be not less than 2 hours. Where the fire partitions have a required fire-resistance rating of more than 1 hour, opening protectives shall be provided in accordance with Table 716.1(2) for fire barriers having a fire-resistance rating greater than 1 hour.

(The Exceptions shall remain unchanged.)

Justification:

The recent State statute A.R.S. 9-462.13 prohibits municipalities from requiring fire sprinklers in residential structures containing up to four dwelling units. To compensate for this reduction in fire protection, this amendment increases the fire-resistance rating of the walls which separate these dwelling units from 1 hour to 2 hours when fire sprinklers are not installed. (The design professional still has the option to install fire sprinklers and provide 1-hour fire-rated dwelling unit demising walls.) This increase of fire-rating of demising walls to 2 hours is similar to a provision in the International Residential Code for non-sprinklered townhouses. One of the greatest life safety risks posed in multiple dwelling unit buildings is the fire risk created by occupants of adjacent dwelling units.

Included in the 2018 Code Amendments: NO

This amendment addresses a State law passed in 2024.

IBC Section 903.2 Proposed Amendment

Original Code Text:

[F] 903.2 Where required.

Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

PROPOSED AMENDMENT:

Section 903.2, Automatic Sprinkler Systems is hereby amended by replacing the first sentence with the following:

Approved automatic sprinkler systems in new buildings and structures, and in existing buildings and structures, that are modified, expanded, remodeled, renovated or change occupancy classifications, shall be provided in accordance with the Glendale City Code, Chapter 16, Article III. In accordance with A.R.S. § 9-462.10, automatic fire sprinkler systems shall not be required in newly constructed three-family dwellings (triplexes) and in newly constructed four-family dwellings (fourplexes).

Justification:

This is a revision to a previously approved amendment of the 2018 code adoption. In Glendale, the provision of fire sprinklers in buildings (included in the IBC) is governed by Glendale City Code Chapter 16, which overrides the requirements of IBC 903.2. This revised amendment incorporates the recent State law which prohibits jurisdictions from requiring fire sprinklers in triplex and fourplex buildings.

Included in the 2018 Code Amendments: NO

The State law acknowledged by this revised amendment was passed in 2024.

IBC Section 1010.2.8.2 Proposed Amendment

Original Code Text:

1010.2.8.2 Rooms with electrical equipment.

Exit or exit access doors serving transformer vaults, rooms designated for batteries or energy storage systems, or modular data centers shall be equipped with panic hardware or fire exit hardware. Rooms containing electrical equipment rated 800 amperes or more that contain overcurrent devices, switching devices or control devices and where the exit or exit access door is less than 25 feet (7620 mm) from the equipment working space as required by NFPA 70, such doors shall not be provided with a latch or lock other than panic hardware or fire exit hardware. The doors shall swing in the direction of egress travel.

PROPOSED AMENDMENT:

Section 1010.2.8.2, Rooms with Electrical Equipment is amended to read as follows:

Exit or exit access doors serving transformer vault, rooms designated for batteries or energy storage systems, or modular data centers shall be equipped with panic hardware or fire exit hardware. Exit or exit access doors serving rooms containing electrical equipment rated 800 amperes or more that contain overcurrent devices, switching devices or control devices shall be equipped with panic hardware or fire exit hardware. The doors shall swing in the direction of exit travel.

Justification:

This code section dictates when panic hardware is required for egress doors serving rooms with electrical equipment rated 800 amps or more. The code invokes this requirement only when the distance to the door is less than 25 feet. Glendale building safety staff believes that the hazard presented by this electrical equipment warrants the provision of panic hardware regardless of the size of the room.

Included in the 2018 Code Amendments: YES

IBC Section 1028.3 Proposed Amendment

Original Code Text:

1028.3 Exit discharge width or capacity.

The minimum width or required capacity of the exit discharge shall be not less than the minimum width or required capacity of the exits being served.

PROPOSED AMENDMENT:

Section 1028.3 Exit discharge width or capacity, add the following sentence:

The minimum width of an exterior sidewalk serving as a component of the exit discharge shall be 60 inches (effective sidewalk width) or as determined by Section 1005.3, whichever is greater. Effective sidewalk width is defined as the usable sidewalk area for pedestrian travel, excluding obstructions such as building walls, trees, poles, or other elements that might restrict pedestrian movement. Typically, 1 foot is subtracted from each side in which one of these listed obstructions is present. Sidewalks adjacent to parking stalls shall be a minimum of 72 inches wide or can be 60 inches wide if a landscape buffer is present.

Justification:

The code allows an exit discharge sidewalk having a width of only 36 inches. Glendale staff believes this is difficult for a person in a wheelchair to navigate, especially if the sidewalk is obstructed by overhanging vehicle bumpers in adjacent parking spaces. The minimum 60 inch width will provide greater accessibility. The 60 inch width has regularly been requested as part of site development review. For any two people to walk together, 60 inches width is the bare minimum required for people to walk comfortably.

Included in the 2018 Code Amendments: NO

IBC Section 1101.1 Proposed Amendment

Original Code Text:

1101.1 Scope.

The provisions of this chapter shall control the design and construction of facilities for accessibility for individuals with disabilities.

PROPOSED AMENDMENT:

Section 1101.1 Scope, revise to read as follows:

The provisions of this chapter and the Arizona Revised Statutes Section ARS 41-1492 shall control the design and construction of *facilities* for accessibility for individuals with disabilities.

Justification:

This is a clarification that Arizona law also dictates accessibility requirements for the design and construction of buildings.

Included in the 2018 Code Amendments: NO

IBC Section 1102.1 Proposed Amendment:

Original Code Text:

1102.1 Design.

Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1.

PROPOSED AMENDMENT:

Section 1102.1 Design, revise to read as follows:

Buildings and facilities shall be designed and constructed to be *accessible* in accordance with this code and ICC A117.1 and in accordance with provisions State of Arizona Attorney General Administrative Rules R10-3-401 through R-10-3-404 (2010 ADA Standards for Accessible Design, referred to as “2010 Standards”, adopted by the U.S. Department of Justice), whichever standard provides the greatest degree of accessibility.

Justification:

This amendment cites the Arizona state standards which govern accessibility in addition to the IBC and ICC A117.1.

Included in the 2018 Code Amendments: NO

IBC Section 1104.1 Proposed Amendment

Original Code Text:

1104.1 Site arrival points.

At least one accessible route within the site shall be provided from public transportation stops, accessible parking, accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance served.

PROPOSED AMENDMENT:

Section 1104.1 Site arrival points, revise the first paragraph to read as follows:

All pedestrian routes within the site provided from public transportation stops, accessible parking, accessible passenger loading zones, and public streets or public sidewalks to all building entrances shall be accessible. The minimum width of sidewalks serving as accessible routes shall be 60 inches (effective sidewalk width). Effective sidewalk width is defined as the usable sidewalk area for pedestrian travel, excluding obstructions such as building walls, trees, poles, or other elements that might restrict pedestrian movement. Typically, 1 foot is subtracted from each side in which one of these listed obstructions is present. Sidewalks adjacent to parking stalls shall be a minimum of 72 inches wide or can be 60 inches wide if a landscape buffer is present.

Justification:

The code allows an access sidewalk having a width of 36 inches. Glendale staff believes this is difficult for a person in a wheelchair to navigate, especially if the sidewalk is obstructed by overhanging vehicle bumpers in adjacent parking spaces. The minimum 60-inch width will provide greater accessibility. The 60-inch width has regularly been requested as part of site development review. For any two people to walk together, 60 inches width is the bare minimum required for people to walk comfortably.

Included in the 2018 Code Amendments: NO

IBC Section 1109.2 Proposed Amendment

Original Text:

1109.2 Assembly area seating.

A building, room or space used for assembly purposes with fixed seating, bleachers, grandstands or folding and telescopic seating shall comply with Sections 1109.2.1 through 1109.2.5. Lawn seating shall comply with Section 1109.2.6. Assistive listening systems shall comply with Section 1109.2.7. Performance areas viewed from assembly seating areas shall comply with Section 1109.2.8. Dining areas shall comply with Section 1109.2.9.

PROPOSED AMENDMENT:

Section 1109.2 Assembly area seating, revise the last sentence to read:

Dining areas shall comply with Section 1109.2.9 and Section 1110.14.

Justification:

Section 1110.14 is a new section in the 2024 IBC which provides additional information regarding dining area accessibility. This amendment adds a cross reference to subsection 1110.14 for clarification. This was likely an oversight in the code.

Included in the 2018 Code Amendments: NO

IBC Section 1110.2 Proposed Amendment

Original Code Text:

1110.2 Toilet and bathing facilities.

Each toilet room and bathing room shall be accessible. Where a floor level is not required to be connected by an accessible route, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. Except as provided for in Sections 1110.2.4 and 1110.2.5, at least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing room shall be accessible.

Exceptions:

3. Where multiple single-user toilet rooms ~~or bathing rooms~~ are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be accessible.

PROPOSED AMENDMENT:

Section 1110.2 Toilet and bathing facilities. Amend Exception #3 by deleting the words “or bathing rooms.” Revise to read as follows:

3. Where multiple single-user toilet rooms are clustered at a single location, at least 50 percent but not less than one room at each cluster shall be *accessible*.

Justification:

The exception for the bathing rooms is not supported by the ADA Standards. This amendment eliminates the conflict.

Included in the 2018 Code Amendments: NO

IBC Table 1607.1 Proposed Amendment

Original Code Text:

TABLE 1607.1 MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS, L_o , AND MINIMUM CONCENTRATED LIVE LOADS

	OCCUPANCY OR USE	UNIFORM (psf)
27.	Residential Habitable Attics and Sleeping Areas	30

PROPOSED AMENDMENT:

Section 1607.1, Table 1607.1. Amend this table by revising item #27, Residential Habitable Attics and Sleeping Areas uniform live load value to 40 psf.

Justification:

In the code, all other habitable areas require a uniform live load of 40 psf. During a structure's lifetime, the potential for an attic or a bedroom to be used for other habitable purposes is very likely. It is common industry practice to design all residential floor areas for a live load of 40 psf.

Included in the 2018 Code Amendments: NO

IBC Section 1609.4.3 Proposed Amendment

Original Text:

1609.4.3 Exposure categories.

An exposure category shall be determined in accordance with the following:

PROPOSED AMENDMENT:

Section 1609.4.3 Exposure Categories is amended by adding the following:

The City of Glendale is predominantly categorized as exposure category C. Deviating from this shall require additional proof and verification from the registered design professional in responsible charge. The engineer shall provide a surface roughness analysis, provide aerials, etc. proving that the proposed site meets exposure category B as defined in ASCE 7-22, Section 26.7.3.

Exception: Single story one- and two-family dwellings are permitted to use exposure category B for wind design.

Justification:

The IBC offers descriptions of various wind exposure categories. This amendment stipulates the wind exposure categories for Glendale to assist the design professional for the structural design. The ASCE 7 reference is also updated to the 2022 edition.

Included in the 2018 Code Amendments: YES

IBC Section 1705.4 Proposed Amendment

Original Code Text:

1705.4 Masonry construction.

Special inspections and tests of masonry construction shall be performed in accordance with the quality assurance program requirements of TMS 402 and TMS 602.

Exception: Special inspections and tests shall not be required for:

1. Glass unit masonry or masonry veneer designed in accordance with Section 2110 or Chapter 14, respectively, where they are part of a structure classified as Risk Category I, II or III.
2. ~~Masonry foundation walls constructed in accordance with Table 1807.1.6.3(1), 1807.1.6.3(2), 1807.1.6.3(3) or 1807.1.6.3(4).~~
3. Masonry fireplaces, masonry heaters or masonry chimneys installed or constructed in accordance with Section 2111, 2112 or 2113, respectively.

PROPOSED AMENDMENT:

Section 1705.4 Masonry Construction is amended by deleting Exception 2.

Justification:

These tables allow for the prescriptive design of masonry foundation walls without structural engineering which is not permitted for a commercial building (i.e. governed by the IBC) by State law.

Included in the 2018 Code Amendments: YES

IBC Sections 1806.1 & 1806.2 Proposed Amendments

Original Code Text:

1806.1 Load combinations.

The presumptive load-bearing values provided in Table 1806.2 shall be used with the allowable stress design load combinations specified in ASCE 7, Section 2.4 or the alternative allowable stress design load combinations of Section 1605.2. The values of vertical foundation pressure and lateral bearing pressure given in Table 1806.2 shall be permitted to be increased by one-third where used with the alternative allowable stress design load combinations of Section 1605.2 that include wind or earthquake loads.

1806.2 Presumptive load-bearing values.

The load-bearing values used in design for supporting soils and rock near the surface shall not exceed the values specified in Table 1806.2 unless data to substantiate the use of higher values are submitted and approved. Where the building official has reason to doubt the classification, strength or compressibility of the soil or rock, the requirements of Section 1803.5.2 shall be satisfied.

Presumptive load-bearing values shall apply to materials with similar physical and engineering characteristics. Mud, organic silt and organic clays (OL, OH), peat (Pt) and undocumented fill shall not be assumed to have a presumptive load-bearing capacity unless data to substantiate the use of such a value are submitted.

PROPOSED AMENDMENTS:

Section 1806.1 Load Combinations is amended by adding the following:

In lieu of the presumptive load-bearing values of Table 1806.2, a geotechnical investigation report is required for all new construction.

Section 1806.2 Presumptive Load- Bearing Values is amended by adding the following:

In lieu of the presumptive load-bearing values of Table 1806.2, a geotechnical investigation report is required for all new construction.

Justification:

Due to the expansive nature and poor bearing capacity of existing soils typically found in Glendale, a geotechnical investigation report is required for all new building construction. Very often, existing soil will not provide the minimum prescribed bearing capacity in Table 1806.2.

Included in the 2018 Code Amendments: YES

IBC Section 1809.4 Proposed Amendment

Original Code Text:

1809.4 Depth and width of footings.

The minimum depth of footings below the undisturbed ground surface shall be 12 inches (305 mm). Where applicable, the requirements of Section 1809.5 shall be satisfied. The minimum width of footings shall be 12 inches (305 mm).

PROPOSED AMENDMENT:

Section 1809.4 Depth and width of footings is amended by revising the first sentence to read as follows:

The minimum depth of footings below the undisturbed ground surface shall be 18 inches (458 mm), unless otherwise recommended by a geotechnical investigation report.

Justification:

Due to the typically poor soils conditions found in Glendale, the code's minimum prescribed bearing depth of 12 inches for footings will not provide adequate soil bearing capacity. Therefore, the minimum depth is amended to 18 inches. This is typical in most Valley jurisdictions.

Included in the 2018 Code Amendments: YES

IBC Table 2902.1 Proposed Amendment

Original Code Text:

e. For business and mercantile classifications with an occupant load of 15 or fewer, a service sink shall not be required.

PROPOSED AMENDMENT:

Table 2902.1 Minimum Number of Required Plumbing Fixtures is amended as follows:

Revise footnote “e” to “50 or fewer.”

Add new footnote “g” to read as follows:

- g. 24 inches (610 mm) of wash sink or 18 inches (457 mm) of a circular wash basin shall be considered equivalent to one lavatory.

Justification:

This increases the threshold for requiring a service sink from 15 occupants to 50. Requiring a separate service sink for a small business is unnecessary and is a cost burden. This is not a life safety issue. The code does not address the equivalency of linear wash sinks and circular wash basins.

Included in the 2018 Code Amendments: YES

IBC Section 2902.6 Proposed Amendment

Original Code Text:

2902.6 Small occupancies.

Drinking fountains shall not be required for an occupant load of 15 or fewer.

PROPOSED AMENDMENT:

Section 2902.6, Small Occupancies is amended by revising “15” to “50.”

Justification:

This increases the threshold for requiring a drinking fountain from 15 occupants to 50. Requiring a drinking fountain for a small business is unnecessary and is a cost burden. This is not a life safety issue.

Included in the 2018 Code Amendments: YES

Amendments to the 2024 International Residential Code (IRC)

These amendments apply to one- and two-family dwellings only. They do not apply to multi-family residential buildings and commercial buildings. The IRC includes mechanical, plumbing, electrical and energy conservation requirements for one- and two-family dwellings.

IRC Chapter 1 Proposed Amendment

Original Code Text:

The text of Chapter 1 of the International Residential Code is being deleted. See Justification below.

PROPOSED AMENDMENT:

Chapter 1. Administration is amended by the deletion of Sections R101 through R114.

For the administration of this code, see the *2024 International Building Code* and related amendments.

Justification:

Chapter 1 of the code contains administrative provisions. Chapter 1 of the International Building Code (IBC) is more complete. It addresses subjects (such as special inspection) that are missing from Chapter 1 of the IRC. Therefore, Glendale has historically utilized IBC Chapter 1 for its code administrative provisions.

Included in the 2018 Code Amendments: YES

IRC Section R201.4 Proposed Amendment

Original Code Text:

R201.4 Terms not defined.

Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies.

PROPOSED AMENDMENT:

Section R201.4, Terms Not Defined is amended by adding to the end of this subsection:

Mirriam-Webster's Unabridged Dictionary of the English Language shall be considered as providing ordinarily accepted meanings.

Justification:

This amendment clarifies that for terms not defined by the building code, Glendale shall refer to the *Mirriam-Webster Dictionary* as the source for definitions.

Included in the 2018 Code Amendments: YES

IRC Section R202 Proposed Amendment

Original Code Text:

[RB] FIRE SEPARATION DISTANCE. The distance measured from the building face to one of the following:

1. To the closest interior *lot line*.
2. To the centerline of a street, an alley or public way.
3. To an imaginary line between two *buildings* or *townhouse units* on the *lot*.

The distance shall be measured at a right angle from the face of the wall.

PROPOSED AMENDMENT:

Section R202, Definitions, FIRE SEPARATION DISTANCE, revise the last sentence to read as follows:

The distance shall be measured at a right angle from the exterior face of the foundation.

Justification:

The measurement of fire separation distance to the face of wall, i.e. wall finish, can be inconsistent. This amendment was requested by HBACA and is consistent with Glendale inspection policy.

Included in the 2018 Code Amendments: NO

IRC Section R202 Proposed Amendment

Original Code Text:

[MP] GRAYWATER. Waste discharged from lavatories, bathtubs, showers, clothes washers and laundry trays.

PROPOSED AMENDMENT:

Section R202, Definitions, GRAYWATER. Revise this definition to read as follows:

Wastewater that has been collected separately from a sewage flow and that originates from a clothes washer or a bathroom tub, shower or sink, but that does not include wastewater from a kitchen sink, dishwasher or toilet.

Justification:

The text of the code definition for graywater is inconsistent with that of the Arizona Department of Environmental Quality (ADEQ). This amendment was requested by the Glendale Water Services Department.

Included in the 2018 Code Amendments: NO

IRC Section R301 Proposed Amendment

Original Code Text:

There is no original code text. This is an added subsection.

PROPOSED AMENDMENT:

Section R301, Design Criteria is amended by adding this subsection:

R301.1.5 Lot Corner Identification. In construction applications where legally surveyed lot corner identification markers are not readily verifiable or are missing, the building official, when deemed necessary, shall require lot boundary markers to be surveyed and permanently identified in accordance with State law at the owner's or applicant's expense. The survey shall be executed by a registrant licensed to do such work by the Arizona State Board of Technical Registration.

Justification:

The accurate identification of property boundaries is important to avoid property disputes and establish zoning setbacks and fire separation benchmarks. This amendment codifies current Glendale inspection policy.

Included in the 2018 Code Amendments: NO

IRC Table R301.2(1) Proposed Amendment

Original Code Text:

There is no original code text. This is a blank table in the code.

PROPOSED AMENDMENT:

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP	ICE BARRIER UNDERLAYM'T REQUIRED	FLOOD HAZARDS	AIR FREEZ'G INDEX	MEAN ANNUAL TEMP
	Speed (mph)	Topographic effects		Weather'g	Frost line depth	Termite					
N/A	115 mph ultimate 89 mph ASD	None	B	Negligible	N/A	Moderate to Heavy	32°F	No	FEMA	N/A	72.6°F

Justification:

This is a blank table in the code which is required to be completed by the adopting jurisdiction.

Included in the 2018 Code Amendments: YES

IRC Table R301.5 Proposed Amendments

Original Code Text:

TABLE R301.5 MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS (psf)

USE	UNIFORM LOAD (psf)
Habitable attics and attics served with fixed stairs	30
Sleeping areas	30

PROPOSED AMENDMENT:

Table R301.5 Minimum Uniformly Distributed Live Loads is amended with the following values:

Habitable attics and attics served with fixed stairs	40 psf
Sleeping areas	40 psf

Justification:

In the code, all other habitable areas require a uniform live load of 40 psf. During a structure's lifetime, the potential for an attic or a bedroom to be used for other habitable purposes is very likely. It is common industry practice to design all residential floor areas for a live load of 40 psf.

Included in the 2018 Code Amendments: NO

IRC Section R302.2 Proposed Amendment

Original Code Text:

R302.2 Townhouses.

Walls separating townhouse units shall be constructed in accordance with Section R302.2.1 or R302.2.2 and shall comply with Sections R302.2.3 through R302.2.5.

PROPOSED AMENDMENT:

Section R302.2, Townhouses is amended by adding this sentence:

No plumbing, mechanical, electrical, piping, or other services in any form are allowed to traverse from one side to the other side of the wall or walls separating *townhouse units*.

Justification:

While the code allows fire sprinkler piping and electrical components to exist in the common wall between townhouse units, this amendment clarifies that systems cannot be shared between the units. Townhouses are independently owned. Utility services must be individually delivered to each townhouse unit.

Included in the 2018 Code Amendments: NO

IRC Section 302.2.6 Proposed Amendment

Original Code Text:

R302.2.6 Structural independence.

Each townhouse unit shall be structurally independent.

Exceptions:

1. Foundations supporting exterior walls or common walls.
2. Structural roof and wall sheathing from each unit fastened to the common wall framing.
3. Nonstructural wall and roof coverings.
4. Flashing at termination of roof covering over common wall.
- ~~5. Townhouse units separated by a common wall as provided in Section R302.2.2, Item 1 or 2.~~
- ~~6. Townhouse units protected by an automatic sprinkler system complying with NFPA 13D.~~

PROPOSED AMENDMENT:

Section R302.2.6, Townhouses, Structural independence is amended by deleting Exceptions 5 and 6.

Justification:

Exceptions 5 and 6 are provisions that eliminate the true structural independence of adjacent townhouse units. Note that the townhouse units themselves have no required fire-resistance, just the wall between them. The point of structural independence is so that common walls function so that a fire in one unit causing structural collapse of that unit does not cause the structural collapse of the common wall, as such these walls should not serve as gravity load bearing walls. Doing so greatly increases the chances of the wall being pulled down from one unit collapsing. Exceptions 5 and 6 are removed to reinforce this functioning. Exception 2 remains such that the common walls can still be used as braced walls. This amendment mimics a similar provision in the 2024 Phoenix building code adoption.

Included in the 2018 Code Amendments: NO

IRC Section R308.1 Proposed Amendment

Original Code Text:

R308.1 Address identification.

Buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches (102 mm) in height with a stroke width of not less than 0.5 inch (12.7 mm). Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.

PROPOSED AMENDMENT:

Section R308.1 is deleted in its entirety and replaced with the following:

R308.1 Address Numbers. Property owners shall obtain and display on the residence, the correct building number or numbers as assigned to such property(ies) by the Planning Department or functional equivalent in accordance with established street assignment policy, prior to final inspection and /or issuance of a certificate of occupancy. The address numbers shall be of a durable material, permanently attached to the building and must be readily distinguished and readable from the nearest paved public/common roadway fronting that property. The size of the address numbers shall comply with the city's adopted fire code and its amendments.

Justification:

This amendment clarifies that the assignment of a building address is dictated by the Planning Department in Glendale. Also, the specifications for the address numbers are dictated by the Glendale Fire Code.

Included in the 2018 Code Amendments: YES

IRC Section R309.1 Proposed Amendment

Original Code Text:

R309.1 Townhouse automatic sprinkler systems.

An automatic sprinkler system shall be installed in townhouses.

Exception: An automatic sprinkler system shall not be required where additions or alterations are made to existing townhouses that do not have an automatic sprinkler system installed.

PROPOSED AMENDMENT:

Section R309.1 Townhouses automatic sprinkler systems. Revise this section to read as follows:

Other than where preempted by Arizona State Law, an automatic sprinkler system shall be installed in *townhouses*.

Exception: An automatic sprinkler system shall not be required where *additions* or *alterations* are made to existing *townhouses* that do not have an automatic sprinkler system installed.

Justification:

State statute ARS 9-462.10 (passed in 2024) prohibits municipalities from mandating the installation of fire sprinklers in townhouses constructed in specified geographic locations.

Included in the 2018 Code Amendments: NO

IRC Section R309.2 Proposed Amendment

Original Code Text:

R309.2 One- and two-family dwellings automatic sprinkler systems.

An automatic sprinkler system shall be installed in one- and two-family dwellings.

Exception: An automatic sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with a sprinkler system.

PROPOSED CODE AMENDMENT:

Section R309.2 One- and two-family dwellings automatic sprinkler systems. In accordance with A.R.S. § 9-807, delete this section in its entirety. In accordance with A.R.S. § 9-461, accessory dwelling units shall not be required to have automatic sprinkler systems.

Justification:

This is a previous amendment recognizing that State statute ARS 9-807 (passed in 2010) prohibits municipalities from mandating fire sprinklers in single-family homes and duplexes. This amendment is updated to incorporate State statute 9-461 (passed in 2024) which prohibits municipalities from requiring fire sprinklers in accessory dwelling units.

Included in 2018 Code Amendments: YES

IRC Section R310.2.2 Proposed Amendment

Original Code Text:

R310.2.2 Alterations, repairs and additions.

Where alterations, repairs or additions requiring a permit occur, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings.

Exceptions:

1. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, the addition or replacement of windows or doors, or the addition of a porch or deck.
2. Installation, alteration or repairs of plumbing or mechanical systems.

PROPOSED AMENDMENT:

Section R310.2.2 Smoke Alarms. Alterations, repairs and additions; add the following to the list of Exceptions:

3. Swimming pools.
4. Electrical panel replacements.
5. Covered patios and shade structures (porches or decks)
6. Detached garages or other detached accessory structures. This does not exempt Accessory Dwelling Units.
7. Photovoltaic solar systems

Justification:

This amendment adds to the list of exceptions in the code when permitted work items will not trigger the retrofit of smoke alarms in a residence. This incorporates a previously issued Technical Bulletin into the code.

Included in the 2018 Code Amendments: NO

IRC Section R317.6 Proposed Amendment

Original Code Text:

There is no original text. This is an added requirement.

PROPOSED AMENDMENT:

Section R317.6, Electric vehicle (EV) charging receptacle outlets and systems. Amend this section to read as follows:

In attached garages, provide a minimum of one EV-ready receptacle outlet, not more than 48 inches above and not less than 18 inches above the floor. This installation shall include a junction box, conductors, raceway and a minimum 50-ampere, 240-volt circuit breaker installed in the electrical service panel. Electric vehicle charging branch circuits shall be installed in accordance with Section E3702.14. The EV-ready receptacle outlet shall be provided in addition to the general use receptacle outlets required by Section 3901.9.

Exception. Garage additions and garage remodels.

Electric vehicle charging systems shall be installed in accordance with the *National Electrical Code*. Electric vehicle charging equipment shall be listed and labeled in accordance with UL 2202. Electric vehicle supply equipment shall be listed and labeled in accordance with UL 2594.

Justification:

This amendment mandates the installation of an EV-ready receptacle outlet in newly constructed, attached garages of single-family houses. An “EV-ready” installation requires the provision of the outlet box, wiring and electrical panel circuit breaker and load capacity. This amendment is made at the request of the city manager’s office.

Included in the 2018 Code Amendments: NO

IRC Section R318.1 Proposed Code Amendment

Original Code Text:

R318.1 Means of egress.

Dwelling units shall be provided with a means of egress in accordance with this section. The means of egress shall provide a continuous and unobstructed path of vertical and horizontal egress travel from all portions of the dwelling unit to the required egress door without requiring travel through a garage. The required egress door shall open directly into a public way or to a yard or court that opens to a public way.

PROPOSED AMENDMENT:

Section R318.1, Means of Egress is amended by adding the following sentences:

The means of egress from dwelling units or sleeping rooms shall not lead through other sleeping rooms, toilet rooms or bathrooms.

Justification:

This amendment ensures that the path of egress is as direct as possible, especially from sleeping rooms. This specific language is found in the *International Building Code*, but is omitted from the *International Residential Code*.

Included in the 2018 Code Amendments: YES

IRC Section R319.2 Proposed Amendment

Original Code Text:

R319.4 Area wells.

An emergency escape and rescue opening where the bottom of the clear opening is below the adjacent grade shall be provided with an area well in accordance with Sections R319.4.1 through R319.4.4.

PROPOSED AMENDMENT:

Section R319.4, Area Wells is amended by adding the following:

An area well shall not be located beneath an emergency escape and rescue opening. A protective grate shall be provided over all area wells. The grate shall comply with Section R319.4.4 and shall be designed for a minimum uniformly distributed live load of 40 pounds per square foot.

Justification:

This amendment ensures that a basement area well is not located directly beneath an emergency escape and rescue opening. (These are required for sleeping rooms.) It also requires a protective grate over the area well openings. The code, as published, does not address this condition.

Included in the 2018 Code Amendments: YES

IRC Section 319.4.4 Proposed Amendment

Original Code Text:

R319.4.4 Bars, grilles, covers and screens.

Where bars, grilles, covers, screens or similar devices are placed over emergency escape and rescue openings, bulkhead enclosures or area wells that serve such openings, the minimum net clear opening size shall comply with Sections R319.2 through R319.2.2 and R319.4.1. Such devices shall be releasable or removable from the inside without the use of a key or tool or force greater than that required for the normal operation of the escape and rescue opening.

PROPOSED AMENDMENT:

Section R319.4.4 Bars, grilles, covers and screens is amended by adding the following sentence:

The dwelling shall be equipped with smoke alarms installed in accordance with Section R310.

Justification:

The code allows the installation of security grilles and screens over windows. These are required to have quick-release mechanisms when they are installed at bedroom windows (which serve as emergency escape and rescue openings). This amendment adds the requirement that the dwelling shall be retrofitted with smoke alarms, if they do not exist. This is a critical, added life safety feature.

Included in the 2018 Code Amendments: NO

IRC Section R325.8 Proposed Amendment

Original Code Text:

R325.8 Required heating.

Where the winter design temperature in Table R301.2 is below 60°F (16°C), every dwelling unit shall be provided with heating facilities capable of maintaining a room temperature of not less than 68°F (20°C) at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls in habitable rooms at the design temperature. The installation of one or more portable space heaters shall not be used to achieve compliance with this section.

PROPOSED AMENDMENT:

Section R325.8 Required heating is amended to read as follows:

R325.8 Required heating and cooling. Every dwelling unit shall be provided with a heating system capable of maintaining a temperature of not less than 70°F; and a cooling system capable of maintaining a temperature no greater than 82°F (if cooled by air conditioning) or 86°F (if cooled by evaporative cooling); at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls in habitable rooms. The installation of one or more portable space heaters or portable space coolers shall not be used to achieve compliance with this code section.

Justification:

The code as published only addresses required heating. In our climate, proper cooling is equally important. This amendment adds cooling system performance requirements. This is a typical amendment in Phoenix area municipalities.

Included in the 2018 Code Amendments: NO

IRC Section R401.1 Proposed Amendment

Original Code Text:

R401.4 Soil tests.

Where quantifiable data created by accepted soil science methodologies indicate expansive soils, compressible soils, shifting soils or other questionable soil characteristics are likely to be present, the building official shall determine whether to require a soil test to determine the soil's characteristics at a particular location. This test shall be done by an approved agency using an approved method. Where the seismic design category in accordance with Section R301.2.2.1 is C or greater and where soil testing is performed, the geotechnical report shall include the determination of the site class and the short-period spectral response acceleration, S_{DS} , in accordance with Section 1613 of the International Building Code. The seismic design category shall be assigned in accordance with Table R301.2.2.1.1.

PROPOSED AMENDMENT:

Section R401.4, Soil Tests is amended by adding the following sentence:

A soils test and geotechnical evaluation report shall be required for all new buildings governed by this code.

Justification:

The code allows the building official to determine when a soils test is needed. Due to the prevalence of poor soil characteristics in the Glendale area, this amendment stipulates the requirement for a soils test (and accompanying geotechnical evaluation report) for all new residential construction. This has been a code amended requirement in Glendale for many years.

Included in the 2018 Code Amendments: YES

IRC Section 403.1.3 Proposed Amendment

Original Code Text:

There is no original code text. This is an added requirement.

PROPOSED AMENDMENT:

Section R403.1.3, Footing and Stem Wall Reinforcing is amended by adding Seismic Design Categories B and C to all seismic design requirements listed in this section.

Justification:

This amendment correlates Seismic Design Categories B and C (which govern buildings in Glendale) with the design requirements listed for Seismic Category D. This effectively adds reinforcing requirements to our foundation design requirements. The reinforcing requirements listed for Seismic Category D are industry standard for concrete design. This is important given the typically poor soils conditions found in Glendale. This also helps to prevent cracking in concrete foundations. This is a typical code amendment for Phoenix area cities.

Included in the 2018 Code Amendments: YES

IRC Section R403.1.3 Proposed Amendment

Original Code Text:

There is no original code text. This is an added requirement.

PROPOSED AMENDMENT:

Section R403.1.3 is amended by adding the following subsection:

Section R403.1.3.7 Foundation Ties. When an addition is constructed, the new foundation shall be tied to the existing foundation by installing two (2) No. 4 dowel bars, minimum 12 inches long. These shall be embedded a minimum of 6 inches into the existing footing.

Justification:

This amendment adds reinforcing to tie a new foundation to an existing foundation. This would typically occur when constructing an addition to a residence. These reinforcing ties help to prevent differential settlement.

Included in the 2018 Code Amendments: YES

IRC Section R403.1.4 Proposed Amendment

Original Code Text:

R403.1.4 Minimum depth.

Exterior footings shall be placed not less than 12 inches (305 mm) below the undisturbed ground surface. Where applicable, the depth of footings shall also conform to Section R403.1.4.1. Deck footings shall be in accordance with Section R507.3.

PROPOSED AMENDMENT:

Section R403.1.4 Minimum Depth is amended by revising 12 inches to 18 inches, unless otherwise recommended by a geotechnical evaluation report.

Justification:

The code allows a minimum bearing depth for footings of 12 inches. Local soils investigations have typically found that our soils will not provide adequate bearing capacity at 12 inches depth. However, this bearing capacity will usually be achieved at 18 inches depth (i.e. 1,500 pounds per square foot). This depth may need to be additionally increased if recommended by a soils report.

Included in the 2018 Amendments: YES

IRC Sections R403.4.1 and R403.5 Proposed Amendments

Original Code Text:

These sections provide prescriptive code requirements for crushed stone footings and are being deleted. See justification below.

PROPOSED AMENDMENTS:

Section R403.4.1 Crushed Stone Footings is deleted in its entirety.

Section R403.5 Crushed Stone Footings for Cast-In-Place Foundations is deleted in its entirety.

Justification:

Crushed stone footings are not recommended due to our poor soil conditions, and therefore these prescriptions are being deleted. We typically do not see them requested for foundation designs.

Included in the 2018 Code Amendments: YES

IRC Section R502.9 Proposed Amendment

Original Code Text:

There is no original code text. This is an added subsection.

PROPOSED AMENDMENT:

Section R502.9 is amended by adding the following subsection:

R502.9.1 Framing Connections. Framing details for bearing walls and posts shall be such that all components are tied together with positive connections to transmit wind uplift forces from the roof to the foundation. Nails loaded in withdrawal by such forces shall not be considered as positive connections.

Approved metal framing anchors shall be provided at the top and bottom of every other stud of a wood-frame bearing wall, except where structural panel sheathing is nailed directly to the studs, top plate and bottom plate in accordance with Table R602.3(1).

Floor-to-floor connections shall have approved metal strap ties at a maximum of 48 inches on center, except where justified by an engineered analysis that bears the seal of a registered design professional.

Each truss, joist and rafter shall be connected to the top plate of the supporting wall with an approved metal framing anchor. The framing anchor shall be of the type which connects to both members of the double top plate. Beams shall be anchored to supporting walls and posts with approved metal framing connectors.

Justification:

This amendment clarifies and specifies requirements for metal framing connectors in wood-framed construction. These are essential to provide positive connections to resist withdrawal and wind uplift. The use of these connectors is typical in Arizona residential construction.

Included in the 2018 Code Amendments: YES

IRC Section R502.3.1 Proposed Amendment

Original Code Text:

This amendment deletes Table R502.3.1(1). See justification below.

PROPOSED AMENDMENT:

Section R502.3.1 Sleeping areas and attic joists is amended to read as follows. Table R502.3.1(1) is deleted:

Table R502.3.1(2) shall be used to determine the maximum allowable span of floor joists that support sleeping areas and attics that are accessed by means of a fixed stairway in accordance with Section R318.7 provided that the design live load does not exceed 40 pounds per square foot and the design dead load does not exceed 20 pounds per square foot. The allowable span of ceiling joists that support attics used for limited storage or no storage shall be determined in accordance with Section R802.5.

Justification:

This amendment is needed to coordinate with our amended Section R301.5 which requires a 40 psf design live load for sleeping areas. Thus, Table R502.3.1(1) which is based on 30 psf live load is deleted.

Included in the 2018 Code Amendments: NO

IRC Section R602.10 Proposed Amendment

Original Code Text:

R602.10 Wall bracing.

Buildings shall be braced in accordance with this section or, when applicable, Section R602.12. Where a building, or portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with Section R301.1.

PROPOSED AMENDMENT:

Section R602.10 Wall Bracing is amended by adding the following:

For buildings that are two or more stories in height, the empirical design provisions for wall bracing in this section shall not be used. An engineered design shall be provided to include both gravity and lateral load calculations. The project drawings and engineering calculations shall bear the seal of a registered design professional.

Justification:

The lateral bracing requirements for structures that are two or more stories in height are complex and the connections required for lateral load transfer from story to story are complicated. The prescriptions offered by the code truly require a design professional to understand and properly apply. Therefore, we are requiring an engineered design for these structures.

Included in the 2018 Code Amendments: YES

IRC Section R606.1.1 Proposed Amendment

Original Text:

R606.1.1 Professional registration not required.

Where the provisions of TMS 403 or the provisions of this section are used to design masonry, project drawings, typical details and specifications are not required to bear the seal of the architect or engineer responsible for design, unless otherwise required by the state law of the jurisdiction having authority.

PROPOSED AMENDMENT:

Section R606.1.1, Professional Registration Not Required is revised to read as follows:

Masonry shall be designed in accordance with the requirements of this section and shall be reinforced in accordance with Figure R606.11.3. Such masonry shall support only a roof and shall be limited to 10 feet in height and shall not require an engineered design. Masonry construction not meeting these limits shall require drawings and engineering calculations bearing the seal of a registered design professional.

Justification:

This will require minimum reinforcing in all new masonry construction. This reinforcing has been required in previous Glendale code amendments at the recommendation of the Structural Engineers Association of Arizona as an inexpensive way to significantly increase the safety of masonry construction.

Included in the 2018 Code Amendments: YES

IRC Section R606.12 Proposed Amendment

Original Code Text:

R606.12 Seismic requirements.

The seismic requirements of this section shall apply to the design of masonry and the construction of masonry building elements located in Seismic Design Category D₀, D₁ or D₂. Townhouses in Seismic Design Category C shall comply with the requirements of Section R606.12.2. These requirements shall not apply to glass unit masonry conforming to Section R607, anchored masonry veneer conforming to Section R703.8 or adhered masonry veneer conforming to Section R703.12.

PROPOSED AMENDMENT:

Section 606.12 Seismic requirements is revised to read as follows:

All new masonry elements shall meet the minimum reinforcing requirements of Sections R606.12.2.2.3, R606.12.2.3.2 and R606.12.2.3.3. These requirements shall not apply to glass unit masonry conforming to Section R607, anchored masonry veneer conforming to Section R703.8 or adhered masonry veneer conforming to Section R703.12.

Justification:

This amendment correlates with amended Section 606.1.1. This will require minimum reinforcing in all new masonry construction. This reinforcing has been required in previous Glendale code amendments at the recommendation of the Structural Engineers Association of Arizona as an inexpensive way to significantly increase the safety of masonry construction.

Included in the 2018 Code Amendments: YES

IRC Section R608.1 Proposed Amendment

Original Code Text:

R608.1 General.

Exterior concrete walls shall be designed and constructed in accordance with the provisions of this section or in accordance with the provisions of PCA 100, ACI 318 or ACI 332. Where PCA 100, ACI 318, ACI 332 or the provisions of this section are used to design concrete walls, project drawings, typical details and specifications are not required to bear the seal of the architect or engineer responsible for design, unless otherwise required by the state law of the jurisdiction having authority.

PROPOSED AMENDMENT:

Section R608.1 General is amended by revising the last sentence to read:

Project drawings, details, calculations and specifications are required to bear the seal of a registered design professional.

Justification:

The design of concrete walls and understanding of the referenced standards is complex and requires the knowledge of a licensed design professional.

Included in the 2018 Code Amendments: YES

IRC Section R610.1 Proposed Amendment

Original Code Text:

R610.1 General.

Structural insulated panel (SIP) walls shall be designed in accordance with the provisions of this section. Where the provisions of this section are used to design structural insulated panel walls, project drawings, typical details and specifications are not required to bear the seal of the architect or engineer responsible for design, unless otherwise required by the state law of the jurisdiction having authority.

PROPOSED AMENDMENT:

Section R610.1 General is amended by revising the last sentence to read:

Project drawings, details, calculations and specifications are required to bear the seal of a registered design professional.

Justification:

The design of structural insulated panel (SIP) walls is complex and requires the knowledge of a licensed design professional. It should be noted that SIP construction is seldom used in our area.

Included in the 2018 Code Amendments: YES

IRC Section R802.8 Proposed Amendment

Original Code Text:

R802.8 Lateral support.

Roof framing members and ceiling joists having a depth-to-thickness ratio exceeding 5 to 1 based on nominal dimensions shall be provided with lateral support at points of bearing to prevent rotation. For roof rafters with ceiling joists attached in accordance with Table R602.3(1), the depth-to-thickness ratio for the total assembly shall be determined using the combined thickness of the rafter plus the attached ceiling joist.

Exception: Roof trusses shall be braced in accordance with Section R802.10.3.

PROPOSED AMENDMENT:

Section R802.8 Lateral Support is amended to read as follows:

Rafters and ceiling joists shall be provided with lateral support at points of bearing to prevent rotation. Where lateral support is provided by solid wood blocking, 1X nominal lumber shall not be allowed.

Justification:

The provision of blocking to prevent rotation at points of bearing is recommended regardless of the size of the roof framing members. The use of 1X nominal lumber is prohibited due to its tendency to split when nailed. The use of 2X nominal lumber blocking at these locations is industry standard practice.

Included in the 2018 Code Amendments: YES

IRC Section R802.8.1 Proposed Amendment

Original Code Text:

R802.8.1 Bridging.

Rafters and ceiling joists having a depth-to-thickness ratio exceeding 6 to 1 based on nominal dimensions shall be supported laterally by solid blocking, diagonal bridging (wood or metal) or a continuous 1-inch by 3-inch (25 mm by 76 mm) wood strip nailed across the rafters or ceiling joists at intervals not exceeding 8 feet (2438 mm).

PROPOSED CODE AMENDMENT:

Section R802.8.1 Bridging. The first sentence is revised to read as follows:

Floor joists, rafters and ceiling joists shall be supported by nominal 2 x solid blocking, diagonal bridging (wood or metal) or a continuous 1-inch by 3-inch wood strip nailed across the rafters or ceiling joists at intervals not exceeding 8 feet.

Justification:

The provision of bridging to prevent rotation and excessive movement of joists is recommended regardless of the size of the joists. This also helps to prevent “squeaking” in wood-framed floor construction.

Included in the 2018 Code Amendments: YES

IRC Section N1101.4 Proposed Amendment:

Original Code Text:

N1101.4 Above code programs.

The code official or other authority having jurisdiction shall be permitted to deem a national, state or local energy-efficiency program to exceed the energy efficiency required by this code. Buildings approved in writing by such an energy-efficiency program shall be considered to be in compliance with this code.

PROPOSED AMENDMENT:

Section N1101.4, Above Code Programs add the following subsection:

N1101.4.1 RESNET Testing & Inspection Protocol. The Residential Energy Services Network (RESNET) Mortgage Industry National Home Energy Rating System Standards (MINHERS) for third party testing and inspections shall be deemed to meet the requirements of sections N1102.5.1, N1102.5.1.2 and N1103.3.7 and shall meet the following conditions:

1. Third Party Testing & Inspections shall be completed by RESNET certified Raters or Rating Field Inspectors and shall be subject to RESNET Quality Assurance Field Review Procedures.
2. Sampling in accordance with Chapter 6 of the MINHERS Standards shall be performed by Raters or Rating Field Inspectors Working under a RESNET Accredited Sampling Provider.
3. Third Party Testing is required for the following items:
 - a. N1102.5.1– Building Envelope – Thermal Air Barrier Checklist
 - b. N1102.5.1.2 – Testing – Air Leakage Rate
 - c. N1103.3.7 – Sealing – Duct Tightness
 - d. Any other testing and inspections required under the code.
4. Alternate testing and inspection programs and protocols shall be allowed when approved by the Building Official.

Justification:

This code section allows the use of alternative energy-compliance programs, such as RESNET, with the approval of the building official. This amendment was requested by the Homebuilders Association of Central Arizona, and it is acceptable. This provides additional design flexibility.

Included in the 2018 Code Amendments: NO

IRC Table N1102.5.1.1 Proposed Amendment

Original Code Text:

This is a deletion of a specific item from this code table. This was added in the 2024 edition of the IRC. See amendment and justification below.

PROPOSED AMENDMENT:

IRC Table N1102.5.1.1, Air Barrier, Air Sealing and Insulation Installation, revise the criteria for “rim joists” as follows:

Delete the statement, “The junctions of the rim board to the sill plate and the rim board and the subfloor shall be air sealed.”

Justification:

The air-sealing requirements of the building exterior thermal envelope are sufficient without the addition of this criteria. This is not a life safety issue. This amendment was requested by the Homebuilders Association of Central Arizona, and it is acceptable.

Included in the 2018 Code Amendments: NO

IRC Section N1104.2 Proposed Amendment

Original Code Text:

N1104.2 Interior lighting controls.

All permanently installed luminaires shall be controlled as required in Sections N1104.2.1 and N1104.2.2.

N1104.2.1 Habitable spaces.

All permanently installed luminaires in habitable spaces shall be controlled with a manual dimmer or with an automatic shutoff control that automatically turns off lights within 20 minutes after all occupants have left the space and shall incorporate a manual control to allow occupants to turn the lights on or off.

N1104.2.2 Specific locations.

All permanently installed luminaires in garages, unfinished basements, laundry rooms and utility rooms shall be controlled by an automatic shutoff control that automatically turns off lights within 20 minutes after all occupants have left the space and shall incorporate a manual control to allow occupants to turn the lights on or off.

PROPOSED AMENDMENT:

Section N1104.2, Interior lighting controls. Delete this section in its entirety.

Justification:

This is a new code requirement to install occupancy (motion) sensors at all switches that control interior light fixtures. These sensors are a safety concern and an annoyance with lights shutting off unexpectedly. This amendment was proposed by the Homebuilders Association of Central Arizona, and it is acceptable.

Included in the 2018 Code Amendments: NO

This is a new code section.

IRC Section N1104.3 Proposed Amendment

Original Code Text:

N1104.3 Exterior lighting controls.

Exterior lighting controls shall comply with Section N1104.3.1.

N1104.3.1 Controls for individual dwelling units.

Where the total permanently installed exterior lighting power is greater than 30 watts, the permanently installed exterior lighting shall comply with the following:

1. Lighting shall be controlled by a manual on and off switch that permits automatic shutoff actions.
2. Lighting shall be automatically shut off when daylight is present and satisfies the lighting needs.
3. Controls that override automatic shutoff actions shall not be allowed unless the override automatically returns automatic control to its normal operation within 24 hours.

PROPOSED AMENDMENT:

Section N1104.3, Exterior lighting controls. Delete this section in its entirety.

Justification:

The automatic timing switch controls required by this new code section are not readily available. Many exterior light fixtures are already available with photocells which shut off the light fixture when daylight is detected, thus meeting the energy conservation intent of this code requirement. This amendment was proposed by the Homebuilders Association of Central Arizona, and it is acceptable.

Included in the 2018 Code Amendments: NO

This is a new code section.

IRC Section M1411.9 Proposed Amendment

Original Code Text:

There is no original text. This is an added requirement.

PROPOSED AMENDMENT:

Section M1411.9, Condensate disposal, add the following:

Condensate drain piping shall not terminate over sidewalks, asphalt, concrete, walking surfaces or similar surfaces. All condensate drain piping shall terminate in an approved location as determined by the building official or his representative.

Justification:

This amendment assures that the condensate water runoff will not occur in a location such as a pedestrian sidewalk and cause a safety issue or a nuisance. This integrates a previously issued Technical Bulletin into the code.

Included in the 2018 Code Amendments: NO

IRC Section M1413 Proposed Amendment

Original Code Text:

There is no original text. This is an added subsection.

PROPOSED AMENDMENT:

Section M1413 Evaporative Cooling Equipment, add the following subsection:

Section M1413.2 Water conservation. Evaporative cooling systems shall be provided with a recirculating water system. Any bleed off rate used by the system shall be limited to that recommended by the manufacturer. Once-through evaporative cooling systems using potable water shall not be permitted.

Justification:

This amendment requires that newly installed evaporative coolers recirculate their cooling water. Most available evaporative coolers will comply with this requirement. This is a water conservation measure.

Included in the 2018 Code Amendments: NO

IRC Section P2903.2 Proposed Amendment

Original Code Text:

MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS^b

Lavatory faucet 2.2 gpm at 60 psi

Shower head^a 2.5 gpm at 80 psi

Sink faucet 2.2 gpm at 60 psi

Water closet 1.6 gallons per flushing cycle

For SI: 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

- a. A hand-held shower spray shall be considered to be a shower head.
- b. Consumption tolerances shall be determined from referenced standards.

PROPOSED AMENDMENT:

Section P2903.2, delete and replace with the following text and table:

Section P2903.2 Maximum flow and water consumption. The maximum water consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table P2903.2. Exception: Replacement of existing fixtures that do not require a permit.

TABLE P2903.2 MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FITTINGS^b

Plumbing fixture or fixture fitting	Maximum flow rate or quantity^b
Lavatory faucet	1.5 gpm at 60 psi
Shower head ^{a,c}	2.0 gpm at 80 psi
Sink faucet	1.8 gpm at 60 psi
Water closet	1.28 gallon per flushing cycle ^{d,e}

For SI: 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa

- a. A hand-held shower spray shall be considered a shower head.
- b. Consumption tolerances shall be determined from referenced standards.
- c. Shower heads shall comply with all requirements for high-efficiency shower heads in ASME A112.18.1-2020/CSA B125.1
- d. For a dual-flush water closet, the full-flush volume shall not exceed 1.28 gallons.
- e. A 1.6 gallon per flushing cycle is permitted where a water closet is connected to an existing building's sanitary drainage piping.

Justification:

This amendment dictates water usage rates that are lower (stricter) than the published IRC rates. This is a water conservation measure in recognition of our desert climate and limited water supply. Other municipalities in Arizona are adopting similar amendments including Phoenix, Scottsdale and Tucson.

Included in the 2018 Code Amendments: NO

IRC Section P2904.1 Proposed Amendment

Original Code Text:

P2904.1 General.

The design and installation of automatic sprinkler systems shall be in accordance with NFPA 13D or Section P2904, which shall be considered to be equivalent to NFPA 13D. Partial automatic sprinkler systems shall be permitted to be installed only in buildings not required to be equipped with an automatic sprinkler system. Section P2904 shall apply to stand-alone and multipurpose wet-pipe sprinkler systems that do not include the use of antifreeze. A multipurpose automatic sprinkler system shall provide domestic water to both fire sprinklers and plumbing fixtures. A stand-alone automatic sprinkler system shall be separate and independent from the water distribution system. A backflow preventer shall not be required to separate an automatic sprinkler system from the water distribution system, provided that the sprinkler system complies with all of the following:

PROPOSED AMENDMENT:

Section P2904.1, Dwelling Unit Automatic Sprinkler Systems, General is revised to read as follows; delete all remaining sections of P2904.

The design and installation of automatic sprinkler systems shall be in accordance with NFPA 13D and the *Glendale Municipal Code, Chapter 16, Article III*. Partial automatic sprinkler systems shall be permitted to be installed only in buildings not required to be equipped with an automatic sprinkler system.

Justification:

This amendment deletes the option of using IRC Section P2904 to prescriptively design a fire sprinkler system for a residence. This amendment correlates the building code with the Glendale Fire Code which dictates that this system complies with the NFPA 13D standard, thus requiring design by a qualified fire sprinkler engineer.

Included in the 2018 Code Amendment: NO

However, this requirement was included in the 2018 Glendale Fire Code.

IRC Section 2906.2 Proposed Amendment

Original Code Text:

The lead content in pipe and fittings used in the water supply system shall be not greater than 8 percent.

PROPOSED AMENDMENT:

Section P2906.2, Lead Content is amended to read as follows:

The lead content in pipe and fittings used in the water supply system shall comply with 40 CFR 143.12(a) as “lead free” as follows:

1. Not contain more than 0.2 percent lead when used with respect to solder and flux; and,
2. Not have more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings and fixtures.

Justification:

This amendment is needed to align the code with the definition of “lead free” in accordance with the Reduction of Lead in Drinking Water Act (RLDWA) and federal regulation 40 CFR 143.12(a).

Included in the 2018 Code Amendments: NO

IRC Section E3404.1 Proposed Amendment

Original Code Text:

There is no original text. This is an added clarification.

PROPOSED AMENDMENT:

Section E3404.1 Applicability is amended by adding the following sentence:

“For electrical systems not covered by this Code, see the *2023 National Electrical Code*.”

Justification:

The electrical chapters of the *International Residential Code* are excerpts from the *National Electrical Code* which are intended to address the electrical systems of one- and two-family dwellings. For additional electrical components that may be utilized in these dwellings, this amendment incorporates the *National Electrical Code*.

Included in the 2018 Code Amendments: YES

IRC Sections E3703.5 and E3901.9 Proposed Amendments

Original Code Text:

There is no original code text. These are added requirements.

PROPOSED AMENDMENTS:

Section E3703.5, Garage branch circuits. This section is amended by adding the following sentence:

In addition to the other branch circuits required by this section, provide a dedicated, minimum 50-ampere, 240-volt branch circuit to supply EV receptacle outlets required by Sections R317.6 and E3901.9 in attached garages.

Section E3901.9, Basements, garages and accessory buildings. This section is amended by adding the following sentence:

In attached garages, provide a minimum of one EV-ready receptacle outlet in accordance with Section R317.6. All components shall be installed in compliance with the *National Electrical Code*.

Justification:

These amendments coordinate the electrical chapters of the IRC with the new code amendment of Section R317.6 to provide an EV-ready outlet in newly constructed, attached garages. This amendment was requested by the City Manager's Office.

Included in the 2018 Code Amendments: NO

This is a new code requirement.

IRC Section E3704 Proposed Amendment

Original Code Text:

There is no original text. This is an added subsection.

PROPOSED AMENDMENT:

Section E3704, Feeder Requirements is amended by adding the following section:

E3704.7 Townhouses. Feeders supplying townhouse units shall not pass through or above other townhouse units.

Justification:

This amendment further clarifies the independence of utilities serving townhouse units. Townhouse units are independently owned. Unlike condominium units, there are no laws to address common walls and common utility services for townhouse units. This correlates with amended code section R302.2.

Included with the 2018 Code Amendments: NO

IRC Sections E3901.4.2 and E3901.4.3 Proposed Amendments [NEC Sections 210.52(C)(2) and 210.52(C)(3)]

Original Code Text:

E3901.4.2 Island and peninsular countertops and work surfaces. Receptacle outlets, if installed to serve an island or peninsular countertop or work surface, shall be installed in accordance with Section E3901.4.3. If a receptacle outlet is not provided to serve an island or peninsular countertop or work surface, provisions shall be provided at the island or peninsula for future addition of a receptacle outlet to serve the island or peninsular countertop or work surface.

E3901.4.3 Receptacle outlet location. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or rangetops as covered in the exception to Section E3901.4.1, or appliances occupying assigned spaces shall not be considered as these required outlets. Required receptacle outlets shall be located in one or more of the following:

1. On or above, but not more than 20 inches (508 mm) above, the countertop or work surface.
2. In a countertop using receptacle outlet assemblies listed for the use in countertops.
3. In a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops.

PROPOSED AMENDMENT:

Sections E3901.4.2 and E3901.4.3 are amended; delete the text and replace with the following:

E3901.4.2 Island and peninsular countertops and work surfaces. At least one receptacle shall be installed at each island and peninsular countertop space with a long dimension of 600 mm (24 in.) or greater and a short dimension of 300 mm (12 in.) or greater. A peninsular countertop is measured from the connected perpendicular wall.

E3901.4.3 Receptacle outlet location. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or rangetops as covered in the exception to Section E3901.4.1, or appliances occupying assigned spaces shall not be considered as these required outlets. Required receptacle outlets shall be located in one or more of the following:

1. On or above, but not more than 20 inches (508 mm) above, the countertop or work surface.
2. In a countertop using receptacle outlet assemblies listed for the use in countertops.
3. In a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops. [210.52(C)(3)]

Exception: To comply with the following conditions (1) and (2), receptacle outlets shall be permitted to be mounted not more than 12 inches (300 mm) below the

countertop or work surface. Receptacles mounted below a countertop or work surface in accordance with this exception shall not be located where the countertop or work surface extends more than 6 inches (150 mm) beyond its support base.

1. Construction for the physically impaired
2. On island and peninsular countertops or work surfaces where the surface is flat across its entire surface (no backsplashes, dividers, etc.) and there are no means to mount a receptacle within 20 inches (500 mm) above the countertop or work surface, such as an overhead cabinet

Justification:

This amendment restores the allowance for electrical outlets at island and peninsular countertops to be located below the countertop surface, for example, on the face of the cabinet. The 2024 IRC as published requires that such outlets be located above the countertop, typically requiring “pop-up” receptacles listed for such use. The NAHB and HBACA requested this amendment as they believe there is inadequate justification to prohibit receptacles below the countertop. Therefore, this amendment restores the language found in the 2018 IRC and previous IRC/ NEC code editions. [The National Electrical Code (NEC) is also cited and amended to cover this provision in buildings other than one- and two-family dwellings.]

Included in the 2018 Code Amendments: NO

IRC Section E3901.9 Proposed Amendment:

Original Code Text:

E3901.9 Basements, garages and accessory buildings.

Not less than one receptacle outlet, in addition to any provided for specific equipment, shall be installed in each separate unfinished portion of a basement; in each vehicle bay not more than 5.5 feet (1676 mm) above the floor in attached garages; in each vehicle bay not more than 5.5 feet (1676 mm) above the floor in detached garages that are provided with electric power and in accessory buildings that are provided with electric power. Receptacles supplying only a permanently installed premises security system shall not be considered as meeting these requirements. [210.52(G)(1), (2), and (3)]

PROPOSED AMENDMENT:

Section E3901.9, Basements, garages and accessory buildings is amended to read as follows:

Not less than one receptacle outlet, in addition to any provided for specific equipment, shall be installed in each separate unfinished portion of a basement; in each vehicle bay at not less than (18) inches (457 mm) and not more than 5.5 feet (1676 mm) above the floor in attached garages; in each vehicle bay at not less than (18) inches (457 mm) and not more than 5.5 feet (1676 mm) above the floor in detached garages that are provided with electric power and in accessory buildings that are provided with electric power. [210.52(G)(1), (2), and (3)]

Justification:

This amendment adds the requirement that electrical receptacle outlets installed in garages and basements shall be a minimum of 18 inches above the floor. The 18 inch minimum height is a requirement for electrical outlets where a source of ignition may be present, such as a fuel-fired appliance, to avoid ignition of low-lying fumes. In addition, there is a tendency to store flammable liquids in garages and basements.

Included in the 2018 Code Amendments: NO

IRC Section E3908.9 Proposed Amendment

Original Code Text:

E3908.9 Types of equipment grounding conductors.

The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

1. A copper, aluminum or copper-clad aluminum conductor. This conductor shall be solid or stranded; insulated, covered or bare; and in the form of a wire or a busbar of any shape. [250.118(1)]
2. Rigid metal conduit. [250.118(2)]
3. Intermediate metal conduit. [250.118(3)]
4. Electrical metallic tubing. [250.118(4)]

PROPOSED AMENDMENT:

Section E3908.9, Types of equipment grounding conductors. Amend item #4 as follows:

4. Electrical metallic tubing with an additional equipment grounding conductor.

Justification:

The use of electrical metallic tubing (EMT) as a grounding conductor is questionable due to possible poor workmanship at the tubing joints. EMT joints can become loose, resulting in a loss of continuity as an enclosing grounding conductor. This amendment requires the provision of an independent equipment grounding conductor when installing EMT.

Included in the 2018 Code Amendments: NO

IRC Appendix BC Proposed Amendment

Original Code Text:

This completely replaces the ICC text of Appendix BC. See justification below.

PROPOSED AMENDMENT:

IRC Appendix BC: Accessory Dwelling Units is adopted and amended as follows:

APPENDIX BC: ACCESSORY DWELLING UNITS (ADU)

SECTION BC101

GENERAL

BC101.1 Scope.

Accessory dwelling units (ADUs) proposed for existing residential construction shall be in accordance with this appendix and other applicable requirements in this code, and the existing building together with the ADUs shall not exceed the scoping limitations of Section R101.2.

BC101.1.1 Prohibited conditions.

An ADU shall not be permitted:

1. On the same lot or parcel as a two-family dwelling (duplex) or other multiple-family dwellings.

BC101.2 Conditions.

ADUs shall be permitted without requiring a change of occupancy where in compliance with all of the following:

1. An ADU shall be permitted within an existing single-family detached dwelling, attached to a single-family dwelling, or in a detached structure that is within the scope of the International Residential Code and in accordance with Arizona Statute 9-461.18.
2. No more than one attached ADU and one detached ADU shall be permitted per single-family dwelling lot or parcel.
3. No more than one attached ADU and two detached ADUs shall be permitted if the single-family dwelling lot is one acre or more, and only if at least one of the ADUs is recorded as a restricted-affordable dwelling unit in accordance with the Glendale *Unified Development Code*.
4. An ADU shall not have a separate address from the principal dwelling.

5. ADUs shall be ancillary or secondary to the primary dwelling and may be constructed to equal the square footage of the primary single-family dwelling; but in no case shall the ADU exceed 1,000 square feet.
6. An ADU shall be provided with a separate entrance from that serving the primary dwelling unit from the exterior of the building.
7. The location of a detached ADU shall comply with Section R302.
8. An ADU shall be provided with adequate provisions for electricity, water supply and sewage disposal.

SECTION BC102

DEFINITIONS

BC102.1 Definitions.

The following words and terms shall, for the purposes of this appendix, have the meanings shown herein:

ACCESSORY DWELLING UNIT (ADU). An ancillary or secondary living unit to a single-family detached dwelling unit. The ADU shall have a kitchenette or kitchen, bathroom, and sleeping area, and is independently accessed from and located on the same lot as a single-family detached unit, either within the same building as the single-family dwelling or in a detached building.

SECTION BC103

ADU PLANNING

BC103.1 Design.

Except as modified by this section, building planning shall be in accordance with Chapter 3 and building structure shall comply with the *International Residential Code*.

BC103.2 Means of egress.

The path of egress travel from an ADU to a public way or to a yard or court that opens to a public way shall be independent of, and not pass through, the primary dwelling unit.

BC103.3 Fire separation.

For ADUs adjoining the primary dwelling unit, the 1-hour fire-resistance-rated wall and floor assembly provisions of Section R302.3 shall be required.

BC103.4 Fire sprinklers.

ADUs shall not be required to be provided with automatic fire sprinklers in accordance with Arizona Statute 9-461.18.

SECTION BC104

UTILITIES

BC104.1 Heating, ventilation and air-conditioning systems.

An ADU shall be provided with:

1. A separate, dedicated heating and cooling system.
2. A separate HVAC thermostat.

BC104.2 Electrical systems.

An ADU shall be provided with:

1. A separate electric meter and a separate electric service and disconnecting means.
2. Ready access for the occupants to all overcurrent devices protecting the conductors supplying the ADU.

BC104.3 Gas piping.

An ADU shall be provided with:

1. A separate gas meter and service.
2. Ready access for the occupants to shutoff valves serving the ADU.

BC104.4 Water service.

An ADU shall be provided with a separate city water meter and water service line.

BC104.5 Sewage disposal.

An ADU may share a sewer connection with the primary dwelling provided that the sewer line is adequately sized. This shall be proven by calculations submitted with the construction documents. Alternatively, an ADU may be provided with a separate building sewer line and tap.

Justification:

This amendment is written to address the new State statute A.R.S. Section 9-461.18 mandating that a municipality (with a population exceeding 75,000) adopt regulations to allow the construction of accessory dwelling units. This amendment is based on the ICC-published *IRC Appendix BC: Accessory Dwelling Units (ADU)*, but is revised to comply with the State statute and Glendale's *Unified Development Code*. In addition, this amendment addresses building code issues relevant to accessory dwelling units.

Included in the 2018 Code Amendments: NO

This addresses a State law passed in 2024.

Amendments to the 2024 International Existing Building Code (IEBC)

These amendments apply to the renovation and change of use/ occupancy of existing multi-family residential buildings and commercial buildings.

IEBC Section 101.1 Proposed Amendment

Original Code Text:

101.1 Title.

These regulations shall be known as the Existing Building Code of [NAME OF JURISDICTION], herein-after referred to as “this code.”

PROPOSED AMENDMENT:

Section 101.1 is amended to read as follows:

Section 101.1 Title. These regulations shall be known as the Existing Building Code of the City of Glendale, Arizona hereinafter referred to as “this code.”

Justification:

The code requires that the name of the jurisdiction be filled in.

Included in the 2018 Code Amendments: YES

IEBC Section 306.7.12 Proposed Amendment

Original Code Text:

306.7.12 Toilet rooms.

Where it is technically infeasible to alter existing toilet rooms to be accessible, one accessible single-user toilet room or one accessible family or assisted-use toilet room constructed in accordance with Section 1110.2.1 of the International Building Code is permitted. This toilet room shall be located on the same floor and in the same area as the existing toilet rooms. At the inaccessible toilet rooms, directional signs indicating the location of the nearest such toilet room shall be provided. These directional signs shall include the International Symbol of Accessibility, and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

PROPOSED AMENDMENT:

Section 306.7.12, Toilet Rooms is amended by adding the following:

As an alternative, in existing toilet rooms and bathing rooms, one fixture (water closet or urinal) may be removed (where two or more fixtures exist) to create the required space for an accessible water closet.

Justification:

In an existing building, this amendment provides the option of removing a plumbing fixture to create the extra space needed for accessibility compliance in an existing restroom. This is in lieu of needing to construct an additional restroom as prescribed in the IEBC. This can provide accessibility compliance at a lower cost and without the loss of space that would be required to construct an additional restroom. This is especially important in the construction of smaller business occupancies.

Included in the 2018 Code Amendments: YES

IEBC Section 1203.3 Proposed Amendment

Original Code Text:

1203.3 Means of egress.

Where, in the opinion of the code official, there is sufficient width and height for a person to pass through the opening or traverse the means of egress, existing door openings and corridor and stairway widths are not required to meet the widths required by the International Building Code or this code. Where approved by the code official, the front or main exit doors need not swing in the direction of the path of exit travel, provided that other approved means of egress having sufficient capacity to serve the total occupant load are provided.

PROPOSED AMENDMENT:

Section 1203.3 is amended by revising the title and the text to read as follows:

1203.3 Means of Egress and Emergency Escape and Rescue. Where, in the opinion of the building official, there is sufficient width and height for a person to pass through the opening or traverse the means of egress, existing window openings, door openings and corridor and stairway widths are not required to meet the widths required by the International Building Code or this code. Where approved by the building official, the front or main exit doors need not swing in the direction of the path of exit travel, provided that other approved means of egress having sufficient capacity to serve the total occupant load are provided.

Justification:

This code section regulates elements of historic buildings for remodel. This amendment adds existing window openings (used for emergency escape and rescue) to the list of components that may be exempt from compliance with current code standards with the approval of the building official. This helps to preserve the exterior appearance of a historic building.

Included in the 2018 Code Amendments: YES

IEBC Section 1204.6 Proposed Amendment

Original Code Text:

1204.6 Means of egress.

Existing door openings and corridor and stairway widths less than those that would be acceptable for nonhistoric buildings under these provisions shall be approved, provided that, in the opinion of the code official, there is sufficient width and height for a person to pass through the opening or traverse the exit and that the capacity of the exit system is adequate for the occupant load, or where other operational controls to limit occupancy are approved by the code official.

PROPOSED AMENDMENT:

Section 1204.6 is amended by revising the title and the text to read as follows:

1204.6 Means of Egress and Emergency Escape and Rescue. Existing window openings, door openings, and corridor and stairway widths less than those that would be acceptable for nonhistoric buildings under these provisions shall be approved, provided that, in the opinion of the building official, there is sufficient width and height for a person to pass through the opening or traverse the exit and that the capacity of the exit system is adequate for the occupant load, or where other operational controls to limit occupancy are approved by the building official.

Justification:

This code section regulates elements of historic buildings for remodel. This amendment adds existing window openings (used for emergency escape and rescue) to the list of components that may be exempt from compliance with current code standards with the approval of the building official. This helps to preserve the exterior appearance of a historic building.

Included in the 2018 Code Amendments: YES

IEBC Section 1201 Proposed Amendment:

Original Code Text:

There is no original code text. This is an added stipulation.

PROPOSED AMENDMENT:

Section 1201 is amended by adding the following subsection:

1201.6 Energy efficiency. Exterior alterations to a *historic building* shall be exempt from the provisions of the International Energy Conservation Code.

Justification:

This amendment exempts exterior alterations to a historic building from compliance with the energy code. These alterations might be required in order to achieve energy code compliance of the building's thermal envelope, but would alter its historic exterior character and thus invalidate its historic compliance.

Included in the 2018 Code Amendments: NO

Amendments to the 2024 International Mechanical Code (IMC)

These amendments apply to the mechanical (HVAC) systems of multi-family residential buildings and commercial buildings. They do not apply to one- and two-family dwellings.

IMC Section 307.2.1 Proposed Amendment

Original Code Text:

307.2.1 Condensate disposal.

Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than $\frac{1}{8}$ unit vertical in 12 units horizontal (1-percent slope). Condensate shall not discharge into a street, alley or other areas so as to cause a nuisance.

PROPOSED AMENDMENT:

Section 307.2.1, Condensate disposal is amended by adding the following:

Condensate drain piping shall not terminate over sidewalks, asphalt, concrete, walking surfaces or similar surfaces. All condensate drain piping shall terminate in an approved location as determined by the building official or his representative.

Justification:

This is an additional stipulation to ensure that condensate water from HVAC equipment is not drained onto areas such as sidewalks where it could create a safety hazard or a nuisance. This integrates a previous Technical Bulletin into the code.

Included in the 2018 Code Amendments: NO

IMC Section 408 Proposed Amendment

Original Code Text:

There is no original code text. This is an added requirement.

PROPOSED AMENDMENT:

Section 408, Marijuana Related Occupancies, add this section:

408 Marijuana Related Occupancies

408.1 General. Any building used to cultivate, produce, infuse or dispense marijuana shall be designed such that there shall be no emission of dust, fumes, vapors, or odors into the environment from the premise. A ventilation system shall be designed to prevent the distribution of odors to other occupied parts of the building or adjacent properties. Design of the odor control system shall be based on accepted engineering practices. All equipment and filter media shall be listed and labeled for the application. Exhaust systems used in odor control systems shall meet the requirements of Section 501.

408.1.1 Exhaust outlets. The termination point for exhaust outlets shall be in accordance with Section 501.3. Exhaust from cultivation and production facilities shall be in accordance with Section 501.3.1(2) and for dispensaries in accordance with Section 501.3.1(3).

Justification:

This is an amendment which adds specific ventilation and exhaust requirements for marijuana-related facilities. Improper interior ventilation can pose health and life safety risks. Insufficient odor control measures for exhaust fumes can create nuisance odors for surrounding properties. This amendment is based upon a similar Phoenix amendment.

Included in the 2018 Code Amendments: NO

IMC Section 607.2 Proposed Amendment

Original Code Text:

607.2 Installation.

Fire dampers, smoke dampers, combination fire/smoke dampers and ceiling radiation dampers located within air distribution and smoke control systems shall be installed in accordance with the manufacturer's instructions, the dampers' listing and Sections 607.2.1 through 607.2.3.

PROPOSED AMENDMENT:

Section 607.2 Installation is amended to read as follows:

Fire dampers, smoke dampers, combination fire/smoke dampers and ceiling radiation dampers located within air distribution and smoke control systems shall be installed in accordance with the manufacturer's instructions, the dampers' listing and Sections 607.2.1 through 607.2.3. Dampers shall be tested by an approved testing agency or a qualified third-party special inspector. The special Inspector/testing agency shall be an independent third-party individual or firm and shall not be the installing contractor. Special inspections shall be as specified in Chapter 17 of the *International Building Code*.

Justification:

Fire and smoke dampers play a critical role in preventing the spread of fire, smoke and toxic gases through ductwork in a fire event. This amendment requires independent third-party testing of the installed dampers to ensure that they are all working properly. This is a task that requires the time and expertise typical of Special Inspections.

Included in the 2018 Code Amendments: NO

IMC Section 928 Proposed Amendment

Original Code Text:

There is no original code text. This is an added requirement.

PROPOSED AMENDMENT:

Section 928, Evaporative Cooling Equipment, add the following subsection:

Section 928.2 Water conservation. Evaporative cooling systems shall be provided with a recirculating water system. Any bleed off rate used by the system shall be limited to that recommended by the manufacturer. Once-through evaporative cooling systems using potable water shall not be permitted.

Justification:

This amendment requires that newly installed, commercial evaporative coolers recirculate their cooling water. Most available evaporative coolers have recirculating pumps. This is a water conservation measure.

Included in the 2018 Code Amendments: NO

IMC Section 932 Proposed Amendment

Original Code Text:

There is no original code text. This is an added requirement.

PROPOSED AMENDMENT:

Section 932, add this new section to read as follows:

Section 932 Water-cooled refrigeration/ heat removal systems.

932.1 Water conservation. A water-cooled refrigeration system or heat removal system, (defined as refrigeration or heat removal system using water, all, or in part, for condensing a refrigerant), shall not discharge more than three gallons of water per nominal ton per hour into an approved sanitary disposal system. Condenser wastewater discharge shall be accomplished by the use of an air gap, as described in the International Plumbing Code. Each water-cooled system shall be provided with one or more of the following water-saving devices: (a) a cooling tower; or (b) an evaporative condenser; or (c) an approved water circulating device.

Justification:

This amendment mandates reduced condenser water discharge in commercial HVAC systems. It provides options for water-savings components. This is a water conservation measure.

Included in the 2018 Code Amendments: NO

Amendments to the 2024 International Plumbing Code (IPC)

These amendments apply to the plumbing systems of multi-family residential buildings and commercial buildings. They do not apply to one- and two-family dwellings.

IPC Section 101.1 Proposed Amendment:

Original Code Text:

101.1 Title.

These regulations shall be known as the Plumbing Code of [name of jurisdiction] hereinafter referred to as “this code.”

PROPOSED AMENDMENT:

Section 101.1 Title is amended to read as follows:

These regulations shall be known as the Plumbing Code of the City of Glendale, Arizona hereinafter referred to as “this code.”

Justification:

The code requires that the name of the adopting jurisdiction be filled in.

Included in the 2018 Code Amendments: YES

IPC Section 301.6 Proposed Amendment

Original Code Text:

301.6 Prohibited locations.

Plumbing systems shall not be located in an elevator shaft or in an elevator equipment room.

Exception: Floor drains, sumps and sump pumps shall be permitted at the base of the shaft, provided that they are indirectly connected to the plumbing system and comply with Section 1003.4.

PROPOSED AMENDMENT:

Section 301.6 Prohibited Locations, Exception is amended to read as follows:

Exception: Floor drains, sumps and sump pumps shall be permitted at the base of the elevator shaft, provided they are daylighted to landscape or indirectly connected to the plumbing system and comply with Section 1003.4.

Justification:

The plumbing plan review and inspection staff have been allowing the option of allowing the elevator shaft drain piping to daylight to landscape to provide more flexibility.

Included in the 2018 Code Amendments: NO

IPC Section 305.4.1 Proposed Amendment

Original Code Text:

305.4.1 Sewer depth.

Building sewers that connect to private sewage disposal systems shall be installed not less than [number] inches below finished grade at the point of septic tank connection. Building sewers shall be installed not less than [number] inches below grade.

PROPOSED AMENDMENT:

Section 305.4.1 Sewer Depth is amended as follows:

Building sewers that connect to private sewage disposal systems shall be installed not less than 12 inches below finished grade at the point of septic tank connection.

Building sewers shall be installed not less than 12 inches below grade.

Justification:

The code requires that these minimum depth values be specified by the adopting jurisdiction.

Included in the 2018 Code Amendments: YES

IPC Section 410.4 Proposed Amendment

Original Code Text:

410.4 Substitution.

Where restaurants provide drinking water in a container free of charge, drinking fountains shall not be required in those restaurants. In other occupancies where three or more drinking fountains are required, water dispensers shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains.

PROPOSED AMENDMENT:

Section 410.4 Substitution is hereby amended by revising the last sentence to read:

In other occupancies where drinking fountains are required, *water dispensers* shall be permitted to be substituted for drinking fountains.

Justification:

This amendment allows for the substitution of various types of water dispensers in lieu of drinking fountains. Water dispensers are more sanitary and typically more cost effective for small businesses.

Included in the 2018 Code Amendments: YES

IPC Section 412 Proposed Amendment

Original Code Text:

There is no original code text. This is an added requirement.

PROPOSED AMENDMENT:

Section 412, Faucets and Fixture Fittings, add the following subsection:

412.13 Automatic faucets. New or replacement faucets serving lavatories in all buildings other than R3 occupancies, individual units in R2 occupancies, or *International Residential Code* structures shall be provided with automatic faucets in accordance with Table 604.4.

Justification:

This amendment requires that all lavatory faucets in newly constructed commercial buildings shall automatically shut off. Automatic faucets are very available. This is a water conservation measure.

Included in the 2018 Code Amendments: NO

IPC Section 604.4 Proposed Amendment

Original Code Text:

MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS

Lavatory, private	2.2 gpm at 60 psi
Lavatory, public (metering)	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Shower head ^{a, g}	<u>2.0</u> gpm at 80 psi
Sink faucet	2.2 gpm at 60 psi
Urinal	1.0 gallon per flushing cycle
Water closet	1.6 gallons per flushing cycle

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

- A hand-held shower spray is a shower head.
- Consumption tolerances shall be determined from referenced standards.
- Showers shall comply with all requirements for high-efficiency showerheads in ASME A112.18.1-2020/CSA B125.1.

PROPOSED AMENDMENT:

Section 604.4, delete and replace with the following:

Section 604.4 Maximum flow and water consumption. The maximum water consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4. Exception: Replacement of existing fixtures that do not require a permit.

TABLE 604.4 MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FITTINGS

Plumbing Fixture or Fixture Fitting	Maximum Flow Rate or Quantity ^b
Lavatory, private	1.5 gpm at 60 psi
Lavatory, public	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Shower heads ^{a,c}	2.0 gpm at 80 psi
Sink faucet	1.8 gpm at 60 psi
Flushing urinals	0.5 gallons per flush
Water closet	1.28 gallons per flush ^{d,e}

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa

- a. A hand-held shower spray is a shower head.
- b. Consumption tolerances shall be determined from referenced standards.
- c. Shower heads shall comply with all requirements for high-efficiency shower heads in ASME A112.18.1-2020/CSA B125.1
- d. For a dual-flush water closet, the full-flush volume shall not exceed 1.28 gallons.
- e. A 1.6 gallon per flushing cycle is permitted where a water closet is connected to a building's existing sanitary drainage piping.

Justification:

This amendment dictates water usage rates that are lower (stricter) than the published IPC rates. This is a water conservation measure in recognition of our desert climate and limited water resources. Other municipalities in Arizona are adopting similar amendments including Phoenix, Scottsdale and Tucson.

Included in the 2018 Code Amendments: NO

IPC Section 605.2 Proposed Amendment

Original Code Text:

Pipe and pipe fittings, including valves and faucets, utilized in the water supply system shall have not more than 8 percent lead content.

PROPOSED AMENDMENT:

Section 605.2, Lead Content of Water Supply Pipe and Fittings is amended to read as follows:

The lead content in pipe and fittings used in the water supply system shall comply with 40 CFR 143.12(a) as “lead free” as follows:

1. Not contain more than 0.2 percent lead when used with respect to solder and flux; and,
2. Not have more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings and fixtures.

Justification:

This amendment is needed to align the code with the definition of “lead free” in accordance with the Reduction of Lead in Drinking Water Act (RLDWA) and federal regulation 40 CFR 143.12(a).

Included in the 2018 Code Amendments: NO

IPC Chapter 7 and Chapter 13 Proposed Amendments

Original Code Text:

Chapter 7 references to the International Private Sewage Disposal Code are deleted, and Chapter 13 Non-potable Water Systems is deleted.

PROPOSED AMENDMENTS:

Chapter 7 is amended as follows:

Any reference in this chapter that refers to the International Private Sewage Disposal Code shall be deferred to the Maricopa County Environmental Services Department.

Chapter 13 Non-potable Water Systems is amended by deleting this chapter in its entirety. These systems shall be designed and constructed in accordance with applicable Maricopa County and State of Arizona regulations and requirements.

Justification:

The design and construction of private sewage disposal systems (septic systems) are governed by Maricopa County. The design and construction of non-potable water systems are governed by Maricopa County and the State of Arizona.

Included in the 2018 Code Amendments: YES

IPC Sections 701.5, 803 and 1003 Proposed Amendments;

Original Code Text:

These code sections are deleted. See justification below.

PROPOSED AMENDMENTS:

Section 701.5 Damage to drainage system or public sewer is amended to reference Section 1003 in its entirety and any requirements in that section shall be deferred to the City of Glendale Water Services Department where applicable.

Section 803 Special Wastes is amended to defer to the City of Glendale Water Services Department.

Section 1003 Interceptors and Separators is amended by deferring to the requirements of the City of Glendale Water Services Department where applicable.

Justification:

The subjects of public sewer, special wastes, interceptors and separators are governed by the Glendale Water Services Department policies.

Included in the 2018 Code Amendments: YES

IPC Section 903.1.1 Proposed Amendment:

Original Code Text:

903.1.1 Roof extension unprotected.

Open vent pipes that extend through a roof shall be terminated not less than [number] inches above the roof.

PROPOSED AMENDMENT:

Section 903.1.1 Roof Extension is amended as follows:

This section allows the Authority Having Jurisdiction to determine the minimum height above a roof that a vent must terminate. The City of Glendale shall require that all vents terminate a minimum of 6 inches above the roof and not less than 12 inches from any vertical surface.

Justification:

The code requires that the adopting jurisdiction specify the minimum height of vent pipe extensions. (This is typically a minimum of 6 inches with greater height required where there is snow.)

Included in the 2018 Code Amendments: YES

Amendments to the 2023 National Electrical Code (NEC)

These amendments apply to the electrical systems of all buildings, including one- and two-family dwellings, multi-family residential buildings and commercial buildings. Some of the code sections apply only to components typically found in commercial buildings, such as high-voltage electrical and critical care systems.

NEC Section 90.1 Proposed Amendment

Original Code Text:

90.1 Purpose.

(A) **Practical Safeguarding.** The purpose of this *Code* is the practical safeguarding of persons and property from hazards arising from the use of electricity. This *Code* is not intended as a design specification or an instruction manual for untrained persons.

PROPOSED AMENDMENT:

Section 90.1 (A) is amended to read as follows:

90.1 (a) Practical safeguarding. The purpose of this code is the practical safeguarding of persons and property from hazards arising from the use of electricity. Any and all electrical work for light, heat, power, or any other purposes shall be installed in conformity with the rules and regulations as set forth in this code and that document titled, *National Electrical Code, 2023 edition*, also known as *NFPA 70*, and in conformity with the rules, policies, regulations and amendments as set forth by the building official. This Code is not intended as a design specification or an instruction manual for untrained persons.

Justification:

This section, as amended, lists more clearly what is covered by the NEC and gives the Building Official and the ability to issue policy and guidelines for enforcement of the Code as is consistent with IBC Section 104.

Included in the 2018 Code Amendments: YES

NEC Section 90.2 Proposed Amendment

Original Text:

There is no original text. This is an added subsection.

PROPOSED AMENDMENT:

Section 90.2(C)(7) is added to read as follows:

Special Inspection. The City of Glendale requires Special Electrical Inspections for the types of work specified below as amended by adding sections 90.2(C)(7) and 90.2(C)(8) Special Electrical Inspections include, but are not limited to, testing or observation of the work assigned for conformance with the approved design drawings and specifications, and submission of appropriate inspection reports or certificates to the City of Glendale Electrical Inspector.

The Special Electrical Inspector shall be a qualified person who demonstrates competence to the satisfaction of the Building Official for the type of work requiring Special Inspection. These individual(s) or firm(s) shall be responsible for performing the Special Inspection tasks and reports required by the City of Glendale. The Special Electrical Inspector(s) shall be an independent, third-party individual, firm or testing agency and shall not be the installing contractor or any other person responsible for the work.

Electrical Special Inspection:

1. Ground-fault protection performance tests for equipment provided or required to have ground-fault protection.
2. Switchboard, panelboards, motor control center, and all other equipment rated 1,000 amps or more; or over 600 volts. (over-potential test, also known as a dielectric withstand test, and commonly referred to as a hi-pot test.)
3. Emergency and standby power systems including: switchboards, panelboards, distribution boards, transfer equipment, power source, conductors, fire pumps, exhaust and ventilation fans.
4. Other special inspections as required by the building official.

Justification:

This amendment provides more clarity regarding requirements for Electrical Special Inspection. This is common on large, commercial electrical systems. The above-mentioned electrical equipment is required to be tested to make sure there are no issues before turning power on. There have been occasional factory, installation, or shipping defects that have been detected by this testing that prevented damage to equipment or possible injury to workers. Also, ground fault protection needs to be tested to make sure it works properly and all settings are per specifications.

Included in the 2018 Code Amendments: YES

NEC Section 90.2 (C)(8) Proposed Amendment

Original Code Text:

There is no original code text. This is an added subsection.

PROPOSED AMENDMENT:

Electrical observation. Electrical observation by the ‘Registrant of Record’ shall be provided for the following installations:

1. Installation or alteration of that portion of a health care facility electrical system which fall within the scope of article 517, Part 3- “Essential Electrical System” of the *2023 National Electrical Code*.
2. Installations or alterations of high voltage electrical systems, which exceed 600 volts.
3. Installations or alterations of electrical systems within locations classified as hazardous by the provisions of the *2023 National Electrical Code*, or the currently adopted International Fire Code, except for gasoline dispensing installations and systems located within storage garages, repair garages or lubratoriums.

The owner shall employ the Engineer responsible for the electrical design, or another Engineer designated by the Engineer responsible for the electrical design to perform visual observation of complex electrical equipment and systems for general conformance

to the approved plans and specifications, including but not limited to, placement and interconnection of equipment. Electrical observation shall be performed at intermediate significant stages of the construction progression and when installation is complete and ready to be inspected by the Building Official. Certificates of Electrical Observation shall be completed and sealed by the Engineer of Record for all life safety items as one of the requirements prior to release of a temporary certificate of occupancy. All certificates of Electrical Observation shall be completed and sealed prior to the project’s final approval and the electrical portion of the certificate of occupancy is completed.

Justification:

This amendment clarifies Glendale’s requirements for Electrical Observation by the electrical engineer. This is required by the code for high voltage electrical systems and critical care electrical systems such as in hospitals.

Included in the 2018 Code Amendments: YES

NEC Article 100 and Section 210(B)(2) Proposed Amendments

Original Code Text:

Kitchen. An area with a sink and permanent provisions for food preparation and cooking.

PROPOSED AMENDMENTS:

Article 100 is amended by revising the definition of the following items to read as follows:

Kitchens. Commercial and Institutional Kitchens and Bars. For the purposes of this section, a kitchen or bar is defined as any area where food or beverage is prepared, served or dispensed.

Section 210.8(B)(2) is amended to read as follows:

(2) Kitchens: Commercial and Institutional Kitchens and bars. For the purposes of this section, a kitchen or bar is defined as any area where food or beverage is prepared, served or dispensed.

Justification:

This amendment is intended to clarify that in a commercial building the requirements of the NEC regarding kitchens shall apply to any area where food and beverages are prepared, such as a beverage station.

Included in the 2018 Code Amendments: YES

NEC Section 210.52 Proposed Amendment:

Original Code Text:

210.52(C)(2) Island and Peninsular Countertops and Work Surfaces.

Receptacle outlets, if installed to serve an island or peninsular countertop or work surface, shall be installed in accordance with 210.52(C)(3). If a receptacle outlet is not provided to serve an island or peninsular countertop or work surface, provisions shall be provided at the island or peninsula for future addition of a receptacle outlet to serve the island or peninsular countertop or work surface.

PROPOSED AMENDMENT:

Section 210.52 is amended to read as follows:

210.52(C)(2) Island and Peninsular Countertops and Work Surfaces. At least one receptacle outlet shall be installed to serve each island and/or peninsular countertop or work surface, and shall be installed in accordance with 210.52(C)(3).

If a range, counter-mounted cooking unit, or sink is installed in an island or peninsular countertop and the depth of the countertop behind the range, counter-mounted cooking unit, or sink is less than 12 inches (300 mm), the range, counter-mounted cooking unit, or sink shall be considered to divide the countertop space into two separate countertop spaces.

Justification:

This amendment mandates the provision of a minimum of one receptacle outlet at an island or peninsula countertop in a kitchen consistent with previous editions of the code. The new code language allows the option for the future installation of these receptacles. As a result, a homeowner may not install them and, instead, use extension cords to serve appliances at an island or peninsula countertop. This is a safety hazard.

Included in the 2018 Code Amendments: NO

This amendment restores a previous code requirement.

NEC Section 230.2 Proposed Amendment

Original Code Text:

230.2 Number of Services. A building or other structure served shall be supplied by only one service unless permitted in 230.2(A) through (D). For the purpose of 230.40, Exception No. 2 only, underground sets of conductors, 1/0 AWG and larger, running to the same location and connected together at their supply end but not connected together at their load end shall be considered to be supplying one service.

PROPOSED AMENDMENT:

Section 230.2 is amended by adding the following sentence to the end of the first paragraph:

No electrical service on one property shall supply power to another separate and distinct property unless these properties are legally combined and under the same ownership.

Justification:

We have had situations develop where abatement case properties (with their power turned off) were being fed by a neighbors' house power electrical service.

Included in the 2018 Code Amendments: YES

NEC Section 230.43 Proposed Amendment

Original Code Text:

230.43 Wiring Methods for 1000 Volts, Nominal, or Less. Service-entrance conductors shall be installed in accordance with the applicable requirements of this *Code* covering the type of wiring method used and shall be limited to the following methods:

- (1) Open wiring on insulators
- (2) Type IGS cable
- (3) Rigid metal conduit (RMC)
- (4) Intermediate metal conduit (IMC)
- (5) Electrical metallic tubing (EMT)
- (6) Electrical nonmetallic tubing
- (7) Service-entrance cables
- (8) Wireways
- (9) Busways
- (10) Auxiliary gutters
- (11) Rigid polyvinyl chloride conduit (PVC)
- (12) Cablebus
- (13) Type MC cable
- (14) Mineral-insulated, metal-sheathed cable, Type MI
- (15) Flexible metal conduit (FMC) not over 1.8 m (6 ft) long or liquidtight flexible metal conduit (LFMC) not over 1.8 m (6 ft) long between a raceway, or between a raceway and service equipment, with a supply-side bonding jumper routed with the flexible metal conduit (FMC) or the liquidtight flexible metal conduit (LFMC) according to the provisions of 250.102(A), (B), (C), and (E)
- (16) Liquidtight flexible nonmetallic conduit (LFNC)
- (17) High density polyethylene conduit (HDPE)
- (18) Nonmetallic underground conduit with conductors (NUCC)
- (19) Reinforced thermosetting resin conduit (RTRC)

PROPOSED AMENDMENT:

Section 230.43 is amended to read as follows:

Section 230.43. Wiring methods for 600 volts, nominal, or less. Service-entrance conductors shall be installed in accordance with the applicable requirements of this code covering the type of wiring method used and shall be limited to the following methods:

1. Rigid metal conduit
2. Intermediate metal conduit
3. Wire ways
4. Bus ways
5. Auxiliary gutters
6. Rigid non-metallic conduit may be used underground
7. Schedule 80 rigid non-metallic conduit may extend above ground to the service equipment.

(Informational note): Refer to the serving utility company's requirements for additional information on installing service-entrance conductors on or within buildings and underground laterals serving the premises.

Justification:

This amends the code's list of allowable wiring methods for electrical service entrance conductors based upon the local electrical utility company's restrictions.

Included in the 2018 Code Amendments: YES

NEC Section 250.118 Proposed Amendment

Original Code Text:

250.118 Types of Equipment Grounding Conductors. The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

- (4) Electrical metallic tubing

PROPOSED AMENDMENT:

Section 250.118, Types of equipment grounding conductors. Amend item #4 as follows:

- 4. Electrical metallic tubing with an additional equipment grounding conductor.

Justification:

The use of electrical metallic tubing (EMT) as a grounding conductor is questionable due to possible poor workmanship at the tubing joints. EMT joints can become loose, resulting in a loss of continuity as an enclosing grounding conductor. This amendment requires the provision of an independent equipment grounding conductor when installing EMT.

Included in the 2018 Code Amendments: NO

NEC Section 300.4(D) Proposed Amendment

Original Code Text:

Exception 1: Steel plates, sleeves, or the equivalent shall not be required to protect rigid metal conduit, intermediate metal conduit, or electrical metallic tubing.

PROPOSED AMENDMENT:

Section 300.4(D) Exception 1 is amended to read as follows:

Exception 1: Steel plates, sleeves, or the equivalent shall not be required to protect rigid metal conduit, intermediate metal conduit, or electrical metallic tubing. Rigid nonmetallic conduit (PVC conduit) is required to be protected.

Justification:

The NEC does not mention protection of PVC conduits; however, we have found nails and screws can easily penetrate it and have caused short circuits.

Included in the 2018 Code Amendments: YES

NEC Section 310.12 Proposed Amendment

Original Code Text:

310.12 120/240-Volt, Single-Phase Dwelling Services and Feeders. For one-family dwellings and the individual dwelling units of two-family and multifamily dwellings, service and feeder conductors supplied by a single-phase, 120/240-volt system shall be permitted to be sized in accordance with 310.12(A) through (D).

For one-family dwellings and the individual dwelling units of two-family and multifamily dwellings, single-phase feeder conductors consisting of two ungrounded conductors and the neutral conductor from a 208Y/120 volt system shall be permitted to be sized in accordance with 310.12(A) through (C).

PROPOSED AMENDMENT:

Section 310.12 is amended to read as follows:

310.12: 120/240-Volt, Single-Phase Dwelling Services and Feeders. For one-family dwellings and the individual dwelling units of two-family and multifamily dwellings, service and feeder conductors supplied by a single-phase, 120/240-volt system shall be permitted to be sized in accordance with 310.12(A) through (D).

(A) **Services.** For a service rated 100 amperes through 400 amperes, the service conductors supplying the entire load associated with a one-family dwelling, or the service conductors supplying the entire load associated with an individual dwelling unit in a two-family or multifamily dwelling, shall be permitted to have an ampacity not less than 83 percent of the service rating. If no adjustment or correction factors are required, Table 310.12(A) shall be permitted to be applied.

(B) **Feeders.** For a feeder rated 100 amperes through 400 amperes, the feeder conductors supplying the entire load associated with a one-family dwelling, or the feeder conductors supplying the entire load associated with an individual dwelling unit in a two-family or multifamily dwelling, shall be permitted to have an ampacity not less than 83 percent of the feeder rating. If no adjustment or correction factors are required, Table 310.12(A) shall be permitted to be applied.

(C) **Feeder Ampacities.** In no case shall a feeder for an individual dwelling unit be required to have an ampacity greater than that specified in 310.12(A) or (B).

(D) **Grounded Conductors.** Grounded conductors shall be permitted to be sized smaller than the ungrounded conductors, if the requirements of 220.61 and 230.42 for service conductors or the requirements of 215.2 and 220.61 for feeder conductors are met.

Where correction or adjustment factors are required by 310.15(B) or (C), they shall be permitted to be applied to the ampacity associated with the temperature rating of the conductor.

Informational Note No. 1: See 240.6(A) for standard ampere ratings for fuses and inverse time circuit breakers.

Informational Note No. 2: See Informative Annex D, Example D7.

Justification:

Conductor ampacity is required by the code to be selected per the ampacity tables and adjusted for conditions that cause heating of the conductor. The ampacity of a conductor is affected by heat, including both the heat generated by current flowing in the conductor, and other adjacent conductors, and from the ambient temperature surrounding the conductors.

The ampacities in Table 310.16 are based on three current-carrying conductors in a raceway or cable and an ambient temperature of 86°F.

The code requires that if there are more than three current-carrying conductors, that the allowable ampacity be adjusted by the factors listed in Table 310.15(C)(1). This is due to the additional heating effects of having more current-carrying conductors in the same raceway or cable. Similarly, the code requires the ampacity to be adjusted if the ambient temperature is greater than the 86° F that Table 310.16 is based upon. The ampacity must be adjusted by the factors listed in Table 310.15(B)(1)(1). This is because the higher ambient temperature reduces the ampacity of the conductor as well as hinders the dissipation of heat from the conductor.

Consider the electrical characteristics of a single-phase 120/240V system, which has two ungrounded conductors and a neutral conductor. The ungrounded conductors are 180 degrees out of phase with each other. Therefore, for a balanced load, the neutral current would be zero and for an unbalanced load the neutral current will be a small value based on the unbalance. This system essentially represents two current-carrying conductors since the neutral current is negligible.

However, in a 208Y/120-volt single-phase system, with two ungrounded conductors and a neutral conductor, the ungrounded conductors are 120 degrees out of phase with each other. This results in neutral current that is the same as the phase current for a balanced load and almost as large as the phase current for an unbalanced load. Therefore, this system represents three current-carrying conductors.

Prior to the 2017 edition, NEC 310.15(B)(7), (now 2023 NEC 310.12), has historically only been applicable to 120/240-volt single phase dwelling services and feeders. This is due to considering only two current-carrying conductors and allowing an increase in ampacity in those conductors due to less heat being generated by the conductors. However, since 208V single-phase systems must be considered three current-carrying conductors, the ampacities in Table 310.16 must be used and 310.12 should not apply. Allowing the use of this ampacity adjustment on 208Y/120-volt systems will result in conductors being undersized based on the load and the overcurrent device intended to protect them. This will be an unsafe installation that could result in fire.

Included in the 2018 Code Amendments: NO

NEC Section 334.10 Proposed Amendment

Original Code Text:

334.10 Uses Permitted. Type NM and Type NMC cables shall be permitted to be used in the following, except as prohibited in 334.12:

- (1) One- and two-family dwellings and their attached or detached garages, and their storage buildings.
- (2) Multi-family dwellings and their detached garages-permitted to be of Types III, IV, and V construction.
- (3) Other structures permitted to be of Types III, IV, and V construction. Cables shall be concealed within walls, floors, or ceilings that provide a thermal barrier of material that has at least a 15-minute finish rating as identified in listings of fire-rated assemblies.
- (4) Cable trays in structures permitted to be Types III, IV, or V where the cables are identified for the use.
- (5) Types I and II construction where installed within raceways permitted to be installed in Types I and II construction.

PROPOSED AMENDMENT:

Section 334.10 is amended to read as follows:

334.10 Uses Permitted. Type NM and Type NMC cables shall be permitted to be used in the following, except as prohibited in 334.12:

1. One- and two-family dwellings and their attached or detached garages, and their storage buildings.
2. Multi-family dwelling units and their detached garages – permitted to be of Types III, IV and V construction.
3. Cable trays in dwellings in accordance with 334.10(1) or in dwelling units, in accordance with 334.10(2) where the cables are identified for the use.

Justification:

The use of Nonmetallic-Sheathed cable in commercial buildings has not typically been permitted in the Phoenix metropolitan area as well as many surrounding cities. Nonmetallic-Sheathed cable (NM) is traditionally used in dwelling units, whereas a stouter wiring method enclosed within raceways is traditionally used in commercial buildings.

The code restrictions of the NEC, with respect to allowing type NM cable in a commercial building, would tend to make the installation impractical in most cases, (i.e. NM cable would not be allowed underground or in drop ceilings), and at best the resulting installation would

likely be a mixture of several different wiring methods, (each with their own requirements). This type of mixture would actually tend to make the installation more complex, creating a larger hurdle to providing a code compliant installation.

Concerns also exist that Nonmetallic-Sheathed Cable would be more subject to damage, such as nicks in the insulation, etc. The integrity of the insulation is critical to the safety of the electrical installation. In dwelling units, the NEC requires AFCI (Arc-Fault Circuit Interrupter) protection for most circuits since a nick in the insulation, such as from a nail for hanging a picture, can cause an arcing fault which may not be cleared by a normal circuit breaker before a fire starts.

The AFCI breaker was developed specifically to detect and clear arcing faults; however, the NEC does not require AFCI protection in most non-dwelling occupancies.

Included in the 2018 Code Amendments: YES

NEC Section 410.36(B) Proposed Amendment

Original Code Text:

These is no original code text. This is an added requirement.

PROPOSED AMENDMENT:

Section 410.36(B) is amended by adding a second paragraph to read as follows:

Intermediate or heavy-duty ceiling systems shall be used for the support of luminaires (lighting fixtures). All light fixtures shall be positively attached to the suspended ceiling system. The attachment device shall have a capacity of 100 percent of the lighting fixture weight acting in any direction. Luminaires (fixtures) weighing less than 56 pounds and track lighting shall have two 12 gauge wires attached at opposing corners of the luminaire(s) (fixture) or track lighting strip to the structure above. These wires may be slack, and shall contain, at a minimum, at least 3 tight twists within a 3-inch length of the wire at each end. Recessed luminaire housings, exit signage, all single bulb fixtures and emergency unit equipment that are installed within or on a suspended ceiling shall have a minimum of at least one 12-gauge wire attached to the structure above and this wire may be slack and shall contain, at a minimum, at least 3 tight twists of the wire within a 3-inch length at each end. Luminaires weighing more than 50 pounds shall comply with NEC 314.27 (a)(2).

Justification:

This is taken out of the Standard for Installation of Lighting Fixtures and is provided in our Amendments so customers don't need to buy the Standard. Most importantly, this includes slack wire installation requirements for light fixtures in suspended ceiling systems.

Included in the 2018 Code Amendments: YES

Amendments to the 2024 International Property Maintenance Code (IPMC)

The IPMC establishes minimum maintenance requirements for existing buildings after the Certificate of Occupancy has been issued. This code is primarily enforced by the Code Compliance Division. It is also helpful to the Building Safety Division in Insafe building abatement cases.

IPMC Section 101.1 Proposed Amendment

Original Code Text;

101.1 Title.

These regulations shall be known as the Property Maintenance Code of [NAME OF JURISDICTION], hereinafter referred to as “this code.”

PROPOSED AMENDMENT:

Section 101.1, Title is amended to read as follows:

These regulations shall be known as the *Property Maintenance Code of Glendale, Arizona*, hereinafter referred to as “this code.”

Justification:

The code requires that the adopting jurisdiction’s name be provided.

Included in the 2018 Amendments: NO

IPMC Section 102.3 Proposed Amendment

Original Code Text:

102.3 Application of other codes.

Repairs, additions or alterations to a structure, or changes of occupancy, shall be done in accordance with the procedures and provisions of the International Building Code, International Existing Building Code, International Energy Conservation Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Residential Code, International Plumbing Code and NFPA 70. Nothing in this code shall be construed to cancel, modify or set aside any provision of the International Zoning Code.

PROPOSED AMENDMENT:

Section 102.3, Application of other codes is amended by replacing *International Zoning Code* with *Glendale Unified Development Code* in the last sentence.

Justification:

Glendale adopts its own zoning ordinance, the *Glendale Unified Development Code*, instead of the *International Zoning Code*.

Included in the 2018 Code Amendments: NO

This is a newly added and amended section in the *International Property Maintenance Code*.

IPMC Section 103.1 Proposed Amendment

Original Code Text:

103.1 Creation of agency.

The [INSERT NAME OF DEPARTMENT] is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

PROPOSED AMENDMENT:

Section 103.1, Creation of agency is amended to read as follows:

The Building Safety Division is hereby created and the official in charge thereof shall be known as the building official. The Code Compliance Division is hereby created and the official in charge thereof shall be known as the code compliance official. The function of these agencies shall be the implementation, administration and enforcement of the provisions of this code. When this code refers to the *code official*, it has the same meaning as the building official and the code compliance official.

Justification:

The code requires that the enforcing agency (department) be named.

Included in the 2018 Code Amendments: NO

IPMC Section 105.2.2 Proposed Amendment

Original Code Text:

105.2.2 Alternative materials, design and methods of construction and equipment.

The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative is not specifically prohibited by this code and has been approved.

Exception: Performance-based alternative materials, designs or methods of construction and equipment complying with the *International Code Council Performance Code*.

PROPOSED AMENDMENT:

Section 105.2.2, Alternative materials, design and methods of construction and equipment is amended by deleting the Exception.

Justification:

The City of Glendale is not adopting the *International Code Council Performance Code*. The *International Property Maintenance Code* and the *International Building Code* as written already provide the flexibility and allowances to consider alternative materials, designs and methods of construction without the adoption of this additional code book.

Included in 2018 Code Amendments: NO

This is a new provision in the 2024 IPMC.

IPMC Section 105.6 Proposed Amendment

Original Code Text:

105.6 Official records.

The code official shall keep official records as required by Sections 105.6.1 through 105.6.5. Such official records shall be retained for not less than 5 years or for as long as the building or structure to which such records relate remains in existence, unless otherwise provided by other regulations.

PROPOSED AMENDMENT:

Section 105.6 Official records is amended to read as follows:

The *code official* shall keep official records as required as required by Sections 105.6.1 through 105.6.5. Such official records shall be retained in accordance with the regulations of the State of Arizona and City Clerk's Office.

Justification:

Records retention in the City of Glendale is governed by the State of Arizona laws and corresponding City Clerk's Office policies.

Included in the 2018 Code Amendments: NO

This is a new provision in the 2024 IPMC.

IPMC Section 105.7 Proposed Amendment

Original Text:

105.7 Liability.

The code official, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction, in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered personally liable, either civilly or criminally, and is hereby relieved from personal liability for any damage accruing to persons or property as a result of an act or by reason of any act or omission in the discharge of official duties.

PROPOSED AMENDMENT:

Section 105.7, Liability is amended by replacing “member of the board of appeals” with “hearing officer” in the first sentence.

Justification:

Glendale uses a hearing officer to review decisions of the building official related to abatement cases, not a board of appeals. This is specified in IPMC Section 106.

Included in the 2018 Code Amendments: YES

This provision was previously included in the IBC amendments.

IPMC Section 106 Proposed Amendment

Original Code Text:

106.1 General.

In order to hear and decide appeals of orders, decisions or determinations made by the code official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the applicable governing authority and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the code official.

PROPOSED AMENDMENT:

106 - APPEALS RELATED TO UNSAFE BUILDINGS, STRUCTURES AND EQUIPMENT

106.1 Appeals. Decisions, orders and notices of violations relating to unsafe buildings, structures or building service equipment may be appealed to the building official. The appeal shall be filed within 30 calendar days from the date of the order or action of the building official; provided however, that if the building or structure or building service equipment is in such condition as to make it immediately dangerous to the life, limb, property, or safety of the public or adjacent property and is ordered vacated and is posted in accordance with this code, such appeal shall be filed within 20 calendar days from the date of service from the building official in accordance with this code.

106.1.1 Processing, Scheduling and Noticing of Appeal. Upon receipt of any appeal filed pursuant to this section, the building official shall schedule a hearing with a hearing officer appointed by the city manager's office. As soon as practicable, the hearing officer shall fix a date, time and place for the hearing of the appeal. Such date shall not be less than 10 calendar days nor more than 60 calendar days from the date the appeal was filed with the building official, unless the parties agree to another date. Written notice of the time and place of the hearing shall be given at least 10 calendar days prior to the date of the hearing to each appellant by either causing a copy of such notice to be delivered to the appellant personally or by mailing a copy thereof, postage prepaid, addressed to the appellant at the address shown on the appeal.

106.1.2 Failure to Appeal. Failure of any person to file an appeal in accordance with the provisions of this code shall constitute a waiver of the right to an administrative hearing and adjudication of the notice of violation or any portion thereof.

106.1.3 Scope of Hearing on Appeal. Only those matters or issues specifically raised by the appellant shall be considered in the hearing of the appeal.

106.1.4 Staying of Notice of Violation. Except for vacation orders made pursuant to this section, enforcement of any notice of violation issued under this code shall be stayed during the pendency of an appeal therefrom which is properly and timely filed.

106.1.5 Failure to Abate.

- (a) If the unsafe building, structure or building service equipment is not repaired or demolished as required by the notice provided for in Section 109, the building official shall give written notice to the owner of the unsafe building, structure or service equipment and other parties in interest, by certified mail or personal service, to appear before a hearing officer at a designated time and place to show cause why the unsafe conditions have not been repaired or demolished in accordance with the statement of particulars set forth in the notice provided for in Section 109. The city manager shall appoint a hearing officer who shall conduct the hearing in accordance with this section.
- (b) The hearing officer shall hear such testimony as the building official, owner and other parties in interest may offer relevant to the condition of the unsafe building, structure or building service equipment and the failure to repair or demolish the same.
- (c) The hearing officer shall make written findings of fact from the testimony offered as to whether or not the building, structure or building service equipment in question is an unsafe condition as defined in this section and whether good cause exists for the failure to repair or demolish the unsafe condition.
- (d) If the hearing officer finds the building, structure, or building service equipment to be unsafe and if the owner of the unsafe building, structure or building service equipment or other parties in interest fail to show good cause why the unsafe building, structure or building service equipment should not be demolished forthwith, the hearing officer shall authorize the building official to cause the damaged building to be demolished. The costs of such demolition shall be charged against the real property on which the unsafe building, structure or building service equipment existed as an assessment. Such assessment shall be recorded in the office of the county recorder and shall be a lien on such real property from the date of its recording until paid. Such lien shall be subject and inferior to a lien for general taxes and to all prior encumbrances of record.
- (e) If the hearing officer finds the building, structure or building service equipment to be unsafe and that good cause exists to grant the owner or other parties in interest additional time to complete the repair or demolition of the damaged building, structure, or building service equipment, the hearing officer shall order that such repairs or demolition be completed with diligence and before a date certain, provided that no extension of time longer than 270 calendar days shall be granted to complete the repairs or demolition. If an extension of time to complete repairs or demolition of the unsafe building, structure or building service equipment is granted but the owner and other parties in interest do not complete the repair or demolition of the unsafe conditions within the extension of time granted, the building official, upon the expiration of the extension granted, shall cause the unsafe building, structure or service equipment to be

demolished forthwith, no further extensions shall be allowed or granted. The costs of such demolition are the responsibility of the property owner and are due 30 calendar days after the final invoice is submitted. Where costs are not paid within 30 calendar days of issuance of the final invoice, the city shall place a lien upon the property and charge interest at the annual rate of 10% until such time as the lien is satisfied. Such assessment shall be recorded in the office of the county recorder and shall be a lien on such real property from the date of its recording until paid. Such lien shall be subject and inferior to a lien for general taxes.

- (f) Any determination by the hearing officer, including any additional extension in time beyond that initially granted by the hearing officer may only be appealed to Maricopa County Superior Court.

106.1.6 Notice by Publication.

If the whereabouts of any person entitled to notice under this section cannot be ascertained by the city in the exercise of reasonable diligence, service of such notice may be made by publishing the notice in a newspaper printed and published in the city for two (2) consecutive weeks.

Justification:

This amendment describes the appeal procedure for abatement cases utilized by the City of Glendale. This is significantly different and more detailed than the methods prescribed in the IPMC. This procedure has been reviewed by the City Attorney's Office.

Included in the 2018 Code Amendments: YES

This language was previously included in the IBC amendments, but is being moved to the IPMC in this code adoption cycle.

IPMC Sections 109.1, 109.2, 109.7, 109.7.1, 109.8, 202 Proposed Amendments

Original Code Text:

In each of these code sections, the words “condemned” and “condemnation” are being replaced with “unsafe” or “unsafe to occupy.”

PROPOSED AMENDMENTS:

Section 109.1, Unsafe conditions is amended by replacing “condemned” with “unsafe to occupy.”

Section 109.2, Closing of vacant structures is amended by revising “placard of condemnation” to “placard stating unsafe to occupy.”

Section 109.7, Placarding is amended by revising placard bearing the word “Condemned” to placard bearing the words:

DO NOT ENTER
UNSAFE TO OCCUPY
IT IS A CLASS I MISDEMEANOR TO OCCUPY THESE PREMISES
OR TO REMOVE OR DEFACE THIS NOTICE

In the last sentence, revise “condemned equipment” to “unsafe equipment.”

Section 109.7.1, Placard removal is amended by removing the word “condemnation” throughout this subsection.

Section 109.8, Prohibited occupancy, revise the first sentence to read:

Any occupied *structure* declared unsafe to occupy and placarded by the *code official* shall be vacated as ordered by the *code official*.

Section 202, General definitions; delete the definition of “Condemn.”

Justification:

The process of declaring a building or equipment as “unsafe to occupy” or “unsafe” is not a legal condemnation process. Thus, the use of the words “condemned” and “condemnation” is not accurate nor appropriate.

Included in the 2018 Code Amendments: NO

This condemnation language was not included in the previous IBC.

IPMC Section 109.1.5 Proposed Amendment

Original Code Text:

5. The building or structure is neglected, damaged, dilapidated, unsecured or abandoned so as to become an attractive nuisance to children who might play in the building or structure to their danger, becomes a harbor for vagrants, criminals or immoral persons, or enables persons to resort to the building or structure for committing a nuisance or an unlawful act.

PROPOSED AMENDMENT:

Section 109.1.5, item #5 is amended by deleting the words “or immoral persons.”

Justification:

In the previous code adoption, City Council objected to the inclusion of the term “immoral persons.”

Included in the 2018 Code Amendments: YES

IPMC Section 110.5 Proposed Amendment

Original Code Text:

110.5 Costs of emergency repairs.

Costs incurred in the performance of emergency work shall be paid by the jurisdiction. The legal counsel of the jurisdiction shall institute appropriate action against the owner of the premises or owner's authorized agent where the unsafe structure is or was located for the recovery of such costs.

PROPOSED AMENDMENT:

Section 110.5 shall be amended to read as follows:

Section 110.5 Costs of emergency repairs and securing the property. All costs incurred in the performance of emergency work; securing a home, business and/or property shall be paid by the legal property owner. The legal counsel of the jurisdiction shall institute appropriate action against the owner of the premises or owner's authorized agent where the unsafe structure or equipment is or was located for the recovery of any costs imposed on the jurisdiction.

Justification:

This amendment clarifies that all costs related to the abatement of an unsafe building, property or equipment are ultimately the responsibility of the legal property owner, not the City of Glendale.

Included in the 2018 Amendments: YES

This language was included as part of the previously amended IBC 116.

IPMC Section 110.6 Proposed Amendment

Original Code Text:

110.6 Hearing.

Any person ordered to take emergency measures shall comply with such order forthwith. Any affected person shall thereafter, upon petition directed to the appeals board, be afforded a hearing as described in this code.

PROPOSED AMENDMENT:

Section 110.6, Hearing is amended by revising “appeals board” to “building official.”

Justification:

In Glendale, appeals related to an abatement posting are initially directed to the building official and, subsequently, to a hearing officer – not to a board of appeals.

Included in the 2018 Code Amendments: YES

IPMC Section 111.1 Proposed Amendment

Original Code Text:

111.1 General.

When the code official determines any structure is so old, dilapidated or has become so out of repair and is dangerous, unsafe, insanitary and otherwise unfit for human habitation or occupancy the code official can order either of the following:

1. The code official is permitted to authorize the owner or owner's authorized agent to make the structure safe by repairs in order to make the structure safe and sanitary. Where there has been a cessation of construction repairs of any structure for a period of more than 2 years the structure will be ordered demolished and removed.
2. The code official is permitted to order the owner or owner's authorized agent to demolish and remove any such structure.

PROPOSED CODE AMENDMENT:

Section 111.1, Demolition, General, item #1, revise "2 years" to "1 year."

Justification:

This amendment aligns the maximum time frame with other amendments, including any extension granted by the hearing officer.

Included in the 2018 Code Amendments: YES

This is consistent with the previously adopted IBC 116.

IPMC Section 303.2 Proposed Amendment

Original Code Text:

303.2 Enclosures.

Private swimming pools, hot tubs and spas, containing water more than 24 inches (610 mm) in depth shall be completely surrounded by a fence or barrier not less than 48 inches (1219 mm) in height above the finished ground level measured on the side of the barrier away from the pool. Gates and doors in such barriers shall be self-closing and self-latching. Where the self-latching device is less than 54 inches (1372 mm) above the bottom of the gate, the release mechanism shall be located on the pool side of the gate. Self-closing and self-latching gates shall be maintained such that the gate will positively close and latch when released from an open position of 6 inches (152 mm) from the gatepost. An existing pool enclosure shall not be removed, replaced or changed in a manner that reduces its effectiveness as a safety barrier.

PROPOSED AMENDMENT:

Section 303.2, Swimming Pools, Enclosures is amended by deferring these requirements to the adopted *2024 International Swimming Pool and Spa Code* and related amendments.

Justification:

In this code cycle, Glendale is adopting the *2024 International Swimming Pool and Spa Code (ISPSC)*. This will address pool barrier requirements and their maintenance.

Included in the 2018 Code Amendments: NO

The ISPSC is being adopted for the first time.

IPMC Section 304.3 Proposed Amendment

Original Code Text:

304.3 Premises identification.

Buildings shall have approved address numbers placed in a position to be plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be not less than 4 inches (102 mm) in height with a minimum stroke width of 0.5 inch (12.7 mm).

PROPOSED AMENDMENT:

Section 304.3, Premises Identification is amended by revising the last sentence to read as follows:

The size of the address numbers shall comply with the city's adopted fire code and its amendments.

Justification:

Address identification is governed by the *Glendale Fire Code*.

Included in the 2018 Code Amendments: YES

IPMC Sections 602.3 and 602.4 Proposed Amendments:

Original Code Text:

602.3 Heat supply. Every owner and operator of any building who rents, leases or lets one or more dwelling units or sleeping units on terms, either expressed or implied, to furnish heat to the occupants thereof shall supply heat during the period from [DATE] to [DATE] to maintain a minimum temperature of 68°F (20°C) in all habitable rooms, bathrooms and toilet rooms.

Exceptions:

1. When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity. The winter outdoor design temperature for the locality shall be as indicated in Appendix D of the International Plumbing Code.

2. In areas where the average monthly temperature is above 30°F (-1°C), a minimum temperature of 65°F (18°C) shall be maintained.

602.4 Occupiable work spaces. Indoor occupiable work spaces shall be supplied with heat during the period from [DATE] to [DATE] to maintain a minimum temperature of 65°F (18°C) during the period the spaces are occupied.

PROPOSED AMENDMENT:

Section 602.3, Heating and Cooling Supply is amended to read as follows:

Every owner and operator of any building who rents, leases or lets one or more dwelling units or sleeping units or indoor occupiable work spaces shall supply heating and cooling to the occupants thereof. These dwelling units, sleeping units and indoor occupiable work spaces shall be provided with a heating system capable of maintaining a temperature of not less than 70°F; and a cooling system capable of maintaining a temperature no greater than 82°F (if cooled by air conditioning) or 86°F (if cooled by evaporative cooling); at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls in habitable rooms. The installation of one or more portable space heaters or portable space coolers shall not be used to achieve compliance with this code section.

Section 602.4 is deleted in its entirety.

Justification:

This amendment provides both heating and cooling requirements for our climate. This amendment is consistent with other Glendale building code amendments and with Glendale Municipal Code Chapter 29.1. Section 602.4 is covered by amended Section 602.3.

Included in the 2018 Code Amendments: NO

Amendments to the 2024 International Energy Conservation Code (IECC)

These amendments apply to all buildings, including one- and two-family dwellings, multi-family residential buildings and commercial buildings. It should be noted that the residential provisions of the IECC are repeated in Chapter 11 of the International Residential Code (IRC) because the IRC is intended to be a comprehensive code for the construction of one- and two-family dwellings.

IECC Section C101.1 Proposed Amendment

Original Code Text:

C101.1 Title and R101.1 Title.

This code shall be known as the Energy Conservation Code of [name of jurisdiction] and shall be cited as such. It is referred to herein as “this code.”

PROPOSED AMENDMENT:

Section C101.1 Title is amended to read as follows:

This code shall be known as the *Energy Conservation Code of the City of Glendale, Arizona*, hereinafter referred to as “this code.”

Section R101.1 Title is amended to read as follows:

This code shall be known as the *Energy Conservation Code of the City of Glendale, Arizona*, hereinafter referred to as “this code.”

Justification:

The code requires that the name of the adopting jurisdiction be provided. This appears in the commercial and residential sections of the IECC.

Included in the 2018 Code Amendments: YES

IECC Section C202 Proposed Amendment:

Original Text:

RESIDENTIAL BUILDING. For this code, includes detached one- and two-family dwelling and multiple single-family dwellings (townhouses) and Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane.

PROPOSED AMENDMENT:

Section C202, Definitions: RESIDENTIAL BUILDING is amended to allow the residential provisions of this energy code to apply to residential occupancies R-2, R-3 and R-4 of four or more stories in height. In accordance with A.R.S. 9-462, triplexes and fourplexes are allowed to comply with the residential provisions of this energy code. As an option, these R-2, R-3 and R-4 occupancies may be constructed to comply with the commercial provisions of this energy code.

Section R202, Definitions: RESIDENTIAL BUILDING is amended to allow the residential provisions of this energy code to apply to residential occupancies R-2, R-3 and R-4 of four or more stories in height. In accordance with A.R.S. 9-462, triplexes and fourplexes are allowed to comply with the residential provisions of this energy code. Also, as an option, these R-2, R-3 and R-4 occupancies may be constructed to comply with the commercial provisions of this energy code.

Justification:

This amended definition allows residential occupancies four or more stories in height to comply with the residential provisions (R sections) of the energy code. In addition, the definition emphasizes that triplexes and fourplexes are allowed to comply with the residential provision in accordance with the recent State law. This definition appears in both the commercial and residential sections of the IECC.

Included in the 2018 Code Amendments: YES

IECC Section C408.2.1 Proposed Amendment

Original Code Text:

C408.2.1 Commissioning plan.

A commissioning plan shall be developed by a registered design professional or approved agency and shall include the following items:

1. A narrative description of the activities that will be accomplished during each phase of commissioning, including the personnel intended to accomplish each of the activities.
2. A listing of the specific equipment, appliances or systems to be tested and a description of the tests to be performed.
3. Functions to be tested including, but not limited to, calibrations and economizer controls.
4. Conditions under which the test will be performed. Testing shall affirm winter and summer design conditions and full outside air conditions.
5. Measurable criteria for performance.

PROPOSED AMENDMENT:

Section C408.2.1 is amended by adding the following sentence:

The provision of a commissioning plan shall be optional.

Justification:

The mandate to provide an energy commissioning report is considered to be mandatory monitoring of energy usage which is prohibited by State law. Also, this would not typically be enforceable by the building department after the issuance of a certificate of occupancy. Thus, this monitoring is an option if the building owner chooses to do so.

Included in the 2018 Code Amendments: YES

IECC Section C404.5.1 Proposed Amendment

Original Code Text:

C404.5.1 Maximum allowable pipe length method.

The maximum allowable piping length from the nearest source of heated water to the termination of the fixture supply pipe shall be in accordance with the following. Where the piping contains more than one size of pipe, the largest size of pipe within the piping shall be used for determining the maximum allowable length of the piping in Table C404.5.1.

1. For a public lavatory faucet, use the “Public lavatory faucets” column in Table C404.5.1.
2. For all other plumbing fixtures and plumbing appliances, use the “Other fixtures and appliances” column in Table C404.5.1.

PROPOSED AMENDMENT:

Section C404.5.1, Maximum allowable pipe length method, revise item 1 to read as follows:

1. For a public lavatory faucet, the maximum allowable piping length from the nearest source of heated water supply pipe to the termination of the fixture supply pipe shall be 10 feet.

Justification:

This code section and its table limit the lengths of hot water branch pipes to reduce the overall length of hot water piping (to reduce heat loss for energy efficiency). However, the shorter lengths prescribed by the table are impractical to install. This is not a life safety issue.

Included in the 2018 Code Amendments: NO

IECC Section C405.15 Proposed Amendment

Original Code Text:

C405.15 Renewable energy systems.

Buildings in Climate Zones 0 through 7 shall comply with Sections C405.15.1 through C405.15.4.

C405.15.1 On-site renewable energy systems. Buildings shall be provided with on-site renewable electricity generation systems with a direct current (DC) nameplate power rating of not less than 0.75 watts per square foot (8.1 W/m²) multiplied by the sum of the gross conditioned floor area of all floors, not to exceed the combined gross conditioned floor area of the three largest floors.

Balance of C405.15 text not shown for brevity. All sections shall be deleted.

PROPOSED AMENDMENT:

Section C405.15, Renewable energy systems. This section is deleted in its entirety. The corresponding requirements in ASHRAE 90.1, Section 10.5.1 are deleted.

Justification:

2024 IECC C405.15 requires on-site renewable electricity generation systems to be installed on **ALL** commercial buildings. If the buildings qualify for one or more of the exceptions to Section C405.15.1 or do not meet the requirements of Section C405.15.1 with an on-site renewable energy system, the building owner is mandated to procure off-site renewable electrical energy in an amount equivalent to **15** times the on-site amount. The owner is required to obtain the off-site renewable energy by entering into a contract with a duration of not less than 10 years.

Furthermore, the contract is required to survive a partial or full transfer of ownership of the building property.

The intent of the International Energy Conservation Code is to promote the efficient **use** of energy. This is accomplished by requiring the components and systems (insulation, fenestration, heating / cooling systems, water heating, lighting, etc.) that are installed in a building to be energy efficient.

However, C405.15 goes well beyond this intent and imposes a heavy-handed mandate that the building owner must either purchase and install an on-site renewable electricity **generation** system or face a draconian penalty of procuring contracted off-site generated renewable electrical energy, sized at 15 times the on-site system size, for a minimum of 10 years. If the building owner needed to sell the building during the contract period, the building would include an encumbrance of this contract that would apply to the prospective owner that may hinder the owner's ability to sell the property.

This amendment recommends removing this requirement by striking C405.15 in its entirety.

Included in the 2018 Code Amendments: NO

This is a new code requirement.

IECC Section R104.1.1 Proposed Amendment

Original Code Text:

R104.1.1 Above code programs.

The code official or other authority having jurisdiction shall be permitted to deem a national, state or local energy-efficiency program to exceed the energy efficiency required by this code. Buildings approved in writing by such an energy-efficiency program shall be considered to be in compliance with this code.

PROPOSED AMENDMENT:

Section R104.1.1, Above Code Programs, add the following subsection:

R104.1.1.1 RESNET Testing & Inspection Protocol. The Residential Energy Services Network (RESNET) Mortgage Industry National Home Energy Rating System Standards (MINHERS) for third party testing and inspections shall be deemed to meet the requirements of sections R402.5.1, R402.5.1.2 and R403.3.7 and shall meet the following conditions:

1. Third Party Testing & Inspections shall be completed by RESNET certified Raters or Rating Field Inspectors and shall be subject to RESNET Quality Assurance Field Review Procedures.
2. Sampling in accordance with Chapter 6 of the MINHERS Standards shall be performed by Raters or Rating Field Inspectors Working under a RESNET Accredited Sampling Provider.
3. Third Party Testing is required for the following items:
 - a. R402.5.1– Building Envelope – Thermal Air Barrier Checklist
 - b. R402.5.1.2 – Testing – Air Leakage Rate
 - c. R403.3.7 – Sealing – Duct Tightness
 - d. Any other testing and inspections required under the code.
4. Alternate testing and inspection programs and protocols shall be allowed when approved by the Building Official.

Justification:

This code section allows the use of alternative energy-compliance programs, such as RESNET, with the approval of the building official. This amendment was requested by the Homebuilders Association of Central Arizona, and it is acceptable. This provides additional design flexibility.

Included in the 2018 Code Amendments: NO

IECC Sections R404.2 and R404.3 Proposed Amendments

Original Code Text:

R404.2 Interior lighting controls.

All permanently installed luminaires shall be controlled as required in Sections R404.2.1 and R404.2.2.

Exception: Lighting controls shall not be required for safety or security lighting.

R404.3 Exterior lighting controls.

Exterior lighting controls shall comply with Section R404.3.1.

R404.3.1 Controls for individual dwelling units.

Where the total permanently installed exterior lighting power is greater than 30 watts, the permanently installed exterior lighting shall comply with the following:

1. Lighting shall be controlled by a manual on and off switch which permits automatic shut-off actions.
2. Lighting shall be automatically shut off when daylight is present and satisfies the lighting needs.
3. Controls that override automatic shut-off actions shall not be allowed unless the override automatically returns automatic control to its normal operation within 24 hours.

PROPOSED AMENDMENTS:

Section R404.2, Interior lighting controls. Delete this section in its entirety.

Section R404.3, Exterior lighting controls. Delete this section in its entirety.

Justification:

This is a new code requirement to install occupancy (motion) sensors at all switches that control interior light fixtures. These sensors are a safety concern and an annoyance with lights shutting off unexpectedly. This amendment was proposed by the Homebuilders Association of Central Arizona, and it is acceptable.

The automatic timing switch controls required by this new code section are not readily available. Many exterior light fixtures are already available with photocells which shut off the light fixture when daylight is detected, thus meeting the energy conservation intent of this code requirement. This amendment was proposed by the Homebuilders Association of Central Arizona, and it is acceptable.

Included in the 2018 Code Amendments: NO

These are new code requirements.

Amendments to the 2024 International Swimming Pool and Spa Code (ISPSC)

The ISPSC will be a newly adopted code for the City of Glendale. It provides comprehensive standards for the construction of swimming pools and spas. These amendments coordinate this code with Chapter 32 of the Glendale Municipal Code, most notably the pool barrier (pool fence) requirements.

ISPSC Section 101.1 Proposed Amendment

Original Code Text:

101.1 Title.

These regulations shall be known as the Swimming Pool and Spa Code of [NAME OF JURISDICTION], hereinafter referred to as “this code.”

PROPOSED AMENDMENT:

Section 101.1 is amended to read as follows:

101.1 Title. These regulations shall be known as the *Swimming Pool and Spa Code of Glendale, Arizona*, hereinafter referred to as “this code.”

Justification:

The code requires that the name of the adopting jurisdiction be provided.

Included in the 2018 Code Amendments: NO

The ISPSC is being adopted for the first time by Glendale.

ISPSC Chapter 1 Proposed Amendment

Original Code Text:

Sections 102 through 114 of Chapter 1 are being deleted. See justification below.

PROPOSED AMENDMENT:

Chapter 1, Scope and Administration is amended by the deletion of Sections 102 through 114. For administration of this code, see the *2024 International Building Code* and related amendments.

Justification:

Glendale uses Chapter 1 of the International Building Code for its code administrative requirements. This avoids duplication and conflicts.

Included in the 2018 Code Amendments: NO

The ISPSC is being adopted for the first time by Glendale.

ISPSC Section 202 Proposed Amendment

Original Code Text:

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.

PROPOSED AMENDMENT:

ISPSC Section 202, Definition: RESIDENTIAL SWIMMING POOL (Residential Pool). Revise this definition as follows:

A pool intended for use that is accessory to a residential dwelling and available only to the household and its guest including any structure intended for swimming, dipping or immersion purposes with a minimum water depth of 18 inches (457.2 mm). This includes in-ground, above-ground and on-ground swimming pools, hot tubs, spas and fixed-in-place wading pools. All other pools shall be considered public pools for purposes of this code.

Justification:

This amended definition is more complete and provides the 18 inch depth threshold. This is consistent with Glendale Municipal Code Chapter 32.

Included in the 2018 Code Amendments: NO

The ISPSC is being adopted for the first time by Glendale. This requirement was previously included in the Glendale Municipal Code.

ISPSC Section 305.1 Proposed Amendment

Original Code Text:

There is no original code text. This is an added requirement.

PROPOSED AMENDMENT:

ISPSC Section 305.1, Barrier requirements, General. Add the following text:

It is the responsibility of the property owner and any other person in responsible charge of a swimming pool to ensure that the required swimming pool barrier, including all gates, doors, locks, latches, and other portions of the barrier are maintained safe and in good working order at all times. No person shall alter or remove any portion of a swimming pool barrier except to repair, reconstruct, or replace the barrier in compliance with provisions of this section. All barriers shall be installed, inspected and approved prior to plastering or filling with water.

Justification:

This is an added requirement to emphasize that it is the property owner's responsibility to maintain swimming pool barriers in a safe and working condition at all times after final inspection.

Included in the 2018 Code Amendments: NO

The ISPSC is being adopted for the first time by Glendale.

ISPSC Section 305.2.1 Proposed Amendment

Original Code Text:

305.2.1 Barrier height and clearances.

Barrier heights and clearances shall be in accordance with all of the following:

1. The top of the barrier shall be not less than 48 inches (1219 mm) above grade where measured on the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of 3 feet (914 mm) measured horizontally from the outside of the required barrier.

PROPOSED AMENDMENT:

ISPSC Section 305.2.1, Barrier height and clearances. Revise item #1 to read as follows:

1. The top of the barrier shall be not less than 60 inches (1524 mm) above grade where measured in the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of 3 feet (914 mm) measured horizontally from the outside of the required barrier. A dwelling or accessory building may be used as part of such barrier.

Justification;

This amendment revises the minimum pool barrier (pool fence) height to 60 inches. This is in compliance with State Statute Section 36-1681 and Glendale Municipal Code Chapter 32.

Included in the 2018 Code Amendments: YES

Although the ISPSC is being adopted for the first time, this barrier requirement has been previously included in the Glendale Municipal Code.

ISPSC Section 305.2.1 Proposed Amendment

Original Code Text:

There is no original code text. This is an added requirement.

PROPOSED AMENDMENT:

ISPSC Section 305.2.1, Barrier height and clearances. Add the following item:

5. The barrier shall be at least 20 inches from the water's edge.

Justification:

This added barrier requirement aligns with Glendale Municipal Code Chapter 32.

Included in the 2018 Code Amendments: NO

Although the ISPSC is being adopted for the first time, this barrier requirement has been previously included in the Glendale Municipal Code.

ISPSC Section 305.2.5 Proposed Amendment

Original Text:

305.2.5 Mesh fence as a barrier.

Mesh fences, other than chain link fences in accordance with [Section 305.2.8](#), shall be installed in accordance with the manufacturer's instructions and shall comply [with ASTM F2286](#) and with [both of the following](#):

1. Where a hinged gate is used with a mesh fence, the gate shall comply with [Section 305.3](#).
2. Mesh fences shall not be installed on top of on-ground residential pools.

PROPOSED AMENDMENT:

ISPSC Section 305.2.5, Mesh fence as a barrier. Delete the text and replace with the following:

Mesh fences, other than chain link fences in accordance with Section 305.2.8, shall be installed in accordance with the manufacturer's instructions and shall comply with ASTM F2286 and with all of the following:

1. The bottom of the mesh fence shall be not more than 1 inch above the deck or installed surface or grade.
2. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not permit the fence to be lifted more than 4 inches from grade or decking.
3. The fence shall be designed and constructed so that it does not allow passage of a 4-inch sphere under any mesh panel. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall be not greater than 4 inches from grade or decking.
4. An attachment device shall attach each barrier section at a height not lower than 45 inches above grade. Common attachment devices include, but are not limited to, devices that provide the security equal to or greater than that of a hook-and-eye-type latch incorporating a spring-actuated retaining lever such as a safety gatehook.
5. Where a hinged gate is used with a mesh fence, the gate shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool or spa, shall be self-closing and shall have a self-latching device.
6. Patio deck sleeves such as vertical post receptacles that are placed inside the patio surface shall be of a nonconductive material.

Justification:

This amendment provides more detailed requirements for mesh pool fences. This is in accordance with Glendale Municipal Code Chapter 32.

Included in the 2018 Code Amendments: NO

Although the ISPSC is being adopted for the first time, this barrier requirement has been previously included in the Glendale Municipal Code.

ISPSC Section 305.2.8 Proposed Amendment

Original Code Text:

305.2.8 Chain link dimensions.

The maximum opening formed by a chain link fence shall be not more than 1 3/4 inches (44 mm). Where the fence is provided with slats fastened at the top and bottom that reduce the openings, such openings shall be not greater than 1 3/4 inches (44 mm).

PROPOSED AMENDMENT:

ISPSC Section 305.2.8, Chain link dimensions. Revise to read as follows:

The maximum opening formed by a chain link fence shall be not more than 1 3/4 inches (44 mm). Where the fence is provided with slats fastened at the top and bottom that reduce the openings, such openings shall be not greater than 1 3/4 inches (44 mm). The chain link mesh shall be minimum 11 wire gauge.

Justification:

This amendment adds the specification that chain link fence, when used as a pool fence, shall be minimum 11 wire gauge for sufficient stiffness and strength. This provision was included in the 2012 IRC Appendix G.

Included in the 2018 Code Amendments: NO

ISPSC Section 305.3.2 Proposed Amendment

Original Code Text:

305.3.2 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.

PROPOSED AMENDMENT:

ISPSC Section 305.3.2, Double or multiple gates. Revise to read as follows:

If a set of double gates or multiple gates is the only access to the yard area where the swimming pool is located, they shall have not fewer than one leaf secured in place and the adjacent leaf shall be self-closing and be secured with a self-latching device. The gate and barrier shall not have openings larger than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the latch release mechanism. The self-latching mechanism shall comply with the requirements of Section 305.3.3.

If a pedestrian gate is present in conjunction with the double or multiple gates, the double or multiple gates need not be self-closing or self-latching and shall be equipped with a padlock or similar locking device. Where the release mechanism of the latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism shall comply with the following:

1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and
2. The gate and barrier shall have no opening greater than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

Justification:

This amendment provides more detailed requirements regarding gates in a pool barrier (pool fence). This is in accordance with Glendale Municipal Code Chapter 32.

Included in the 2018 Code Amendments: NO

Although the ISPSC is being adopted for the first time, this barrier requirement has been previously included in the Glendale Municipal Code.

ISPSC Section 305.4 Proposed Amendment

Original Code Section:

305.4 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, one of the following shall be required:

1. 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 window, door or their screens are opened. The alarm shall be listed and labeled as a water hazard entrance alarm in accordance with UL 2017.
2. 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. 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. 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.

PROPOSED AMENDMENT:

ISPSC Section 305.4, delete this section and replace with the following:

305.4 Secondary protection.

1. *Application*. The provisions of this section shall apply to swimming pools, spas, hot tubs or other contained bodies of water (above or below ground) when a residence, living area, accessory dwelling unit or accessory building, in which a child younger than six (6) years of age will or does reside, constitutes part of the barrier or enclosure required by Section 305.2:
 - a. Such swimming pool, spa, hot tub or other contained body of water is constructed or installed on or after the effective date of this ordinance at a single family residence; or
 - b. An existing swimming pool or other body of water lawfully

constructed prior to the effective date of this ordinance, but which does not conform to these regulations, shall become subject to these regulations as a result of any alteration, addition, or expansion of a dwelling unit, accessory dwelling unit or guest room having access to such pool, that increases the livable area; or

- c. The existing single family residence is sold.

2. *Requirements for secondary protection.* When an event described in paragraph (1) above occurs, one of the following methods of secondary protection shall be provided:

- a. Between the swimming pool or other contained body of water and the residence or living area, a minimum five (5) foot high wall, fence or barrier to the pool area which meets all of the requirements of Sections 305.2 and 305.3; or
- b. The pool shall be protected by a motorized safety pool cover in compliance with ASTM F1346 which requires the operation of a key switch and which does not require manual operation other than the use of the key switch. The key switch shall be located not less than 54 inches (1372 mm) above the floor or adjacent ground level and where the entire pool cover can be visually inspected; or
- c. All ground level doors or other doors with direct access to the area containing a swimming pool or other contained body of water shall be equipped with either: (1) a self-closing and self-latching device with the latch located at least 54 inches above the finished floor; or (2) an alarm placed not less than 54 inches above the finished floor which activates automatically whenever the door is opened. The alarm shall sound continuously for a minimum of 30 seconds beginning within the first 7 seconds after the door and its screen, if present, are opened and be capable of providing a sound pressure level of not less than 85 dBA when measured at 10 feet in any direction. The sound of the alarm shall be distinctive from other household sounds such as smoke detectors, telephones, and doorbells. The alarm system may be equipped with a manual means to temporarily deactivate the alarm for a single opening. Such deactivation shall last no longer than 15 seconds. An “off” switch is not acceptable. The deactivation switch shall be located at least 54 inches above the finished floor.

Sliding doors shall not form any part of a required barrier unless equipped with a self-closing and self-latching mechanism. Multi-panel sliding doors or walls shall meet the requirements of this section, or shall be secured in place by a permanent fastening method that requires a tool to remove.

Emergency escape or rescue windows from sleeping rooms with access to the swimming pool or other contained body of water shall be equipped with a latching device not less than 54 inches above the floor. All other openable dwelling unit or guest room windows with similar access shall be equipped with a screwed-in-place wire mesh screen or a latching device located not less than 54 inches above the floor; or

- d. An alarm maintained in or on the swimming pool or other body of water. The alarm shall be installed so as to activate automatically whenever a person enters the swimming pool or body of water and remain activated until manually turned off. The alarm shall sound continuously within the first 7 seconds after a person enters the swimming pool or body of water and be capable of providing a sound pressure level of not less than 85 dBA when measured at 10 feet in any direction. The sound of the alarm shall be distinctive from other household sounds such as smoke detectors, telephones, and doorbells; or
- e. The swimming pool shall be an above-ground swimming pool which has non-climbable exterior sides which are a minimum height of 4 feet. Any access ladder or steps shall be removable without tools and secured in an inaccessible position with a latching device not less than 54 inches above the ground when the pool is not in use; or
- f. Latching or locking hard safety cover which may be latched or locked shall be deemed to meet all barrier requirements of this section for any spa or hot tub which is not more than 8 feet in width, length or diameter; or
- g. Alternative protection not specified herein and providing protection meeting the intent of these requirements is allowed when approved by the building official.

3. *Compliance.*

- a. All plans submitted to the city for swimming pools to be constructed or installed after the effective date of this section shall specify the manner in which compliance with secondary protection shall be accomplished. Submission of plans shall constitute verification by the contractor and owner of compliance with this section and the manner of compliance.
- b. If an existing single family residence containing a swimming pool or other body of water is sold after the effective date of this ordinance, and secondary protection is required by this section, the buyer shall comply with the provisions of this section no later than 30 days after the date the buyer takes occupancy of the residence.

4. Maintenance. Secondary protection required by this section shall be maintained in proper operating order by the owner or occupant.

Justification:

This amendment provides the requirements for a secondary pool barrier. This concept is not present in the ISPSC. (The structure wall described in the original code text may serve as part of the secondary barrier.) A secondary pool barrier is required by Glendale Municipal Code Chapter 32. This amendment also incorporates the text of a previously issued Technical Bulletin. A secondary barrier is a common requirement in local jurisdictions' swimming pool barrier codes. The provision of a secondary barrier provides an additional layer of protection to help prevent child drownings.

Included in the 2018 Code Amendments: NO

Although the ISPSC is being adopted for the first time, this secondary barrier requirement has been previously included in the Glendale Municipal Code.

ISPSC Section 305 Proposed Amendment

Original Code Text:

There is no original code text. This is an added subsection.

PROPOSED AMENDMENT:

ISPSC Section 305. Add the following section:

305.9 Exemptions. The requirements of Section 305 do not apply to the following:

- a. A system of sumps, irrigation canals, irrigation flood control or drainage works constructed or operated for the purpose of storing, delivering, distributing or conveying water.
- b. Stock ponds, storage tanks, livestock operations, livestock watering troughs or other structures used in normal agricultural practices.
- c. Lakes or decorative ponds.

Justification:

These exemptions to the provision of a swimming pool barrier are in accordance with Glendale Municipal Code Chapter 32.

Included in the 2018 Code Amendments: NO

Although the ISPSC is being adopted for the first time, these exemptions have been previously included in the Glendale Municipal Code.

ISPSC Section 307.2.2 Proposed Amendment

Original Code Text:

307.2.2 Materials and structural design.

Pools and spas shall conform to one or more of the standards indicated in Table 307.2.2. The structural design of pools and spas shall be in accordance with the International Building Code or the International Residential Code, as applicable in accordance with Section 102.7.1 of this code.

Exception: Pools and spas constructed with reinforced concrete or reinforced shotcrete with a minimum compressive strength of 2,500 pounds per square inch (175.8 kg/cm²) as designed by a design professional and approved shall be permitted.

PROPOSED AMENDMENT:

ISPSC Section 307.2.2 Materials and Structural Design, Exception is revised to read as follows:

Exception: Pools and spas constructed with reinforced concrete or reinforced shotcrete with a minimum compressive strength of 2,500 pounds per square inch when designed by a *registered design professional* and approved by the *building official* shall be permitted.

Justification:

This amendment clarifies that the design professional involved shall be registered, i.e. licensed. Typically, pool design drawings are submitted with the seal of a licensed Arizona structural engineer.

Included in the 2018 Code Amendments: NO

The ISPSC is being adopted for the first time.

ISPSC Section 411.1.4 Proposed Amendment

Original Code Text:

Swimming pools greater than 30 feet wide in width shall be provided with entries and exits on each side of the deep area of the pool. The entries and exits on the sides of the deep area of a pool shall be located not more than 82 feet apart.

PROPOSED AMENDMENT:

ISPSC Section 411.1.4, Public Swimming Pools, Entry and Exit. Revise to read as follows:

Swimming pools greater than 20 feet wide in width shall be provided with entries and exits on each side of the deep area of the pool. The entries and exits on the sides of the deep area of a pool shall be located not more than 82 feet apart.

Justification:

This amendment is consistent with the Maricopa County Environmental Health Code which also governs public swimming pools.

Included in the 2018 Code Amendments: NO

The ISPSC is being adopted for the first time.

Amendments to the 2024 International Green Construction Code (IgCC)

The International Green Construction Code contains provisions that promote sustainable construction. It is being adopted for the first time by the City of Glendale for use on a voluntary basis by building owners and design professionals. Its adoption provides recognized sustainability standards developed cooperatively by ICC and ASHRAE.

IgCC Section 101.1 Proposed Amendment

Original Code Text:

101.1 Title.

These regulations shall be known as the Green Construction Code of [NAME OF JURISDICTION], hereinafter referred to as “this code.”

PROPOSED AMENDMENT:

IgCC Section 101.1 Title. Amend the text as follows:

These regulations shall be known as the *Green Construction Code* of Glendale, Arizona, hereinafter referred to as “this code.”

Justification:

The code requires that the name of the adopting jurisdiction be provided.

Included in the 2018 Code Amendments: NO

The IgCC is being adopted for the first time.

IgCC Table 101.5.1 Proposed Amendment:

Original Code Text:

101.5.1 Jurisdictional options.

The jurisdictional options listed in Table 101.5.1 provide jurisdictions the flexibility to adopt the code in a manner that is best suited to meet their unique environmental and regional goals and needs. The informative symbol [JO] after the section number indicates jurisdictional option provisions.

Table 101.5.1 may be used for the code adoption ordinance:

1. Where “No” boxes are provided, the jurisdiction checks the box to indicate where that section is not to be enforced as a requirement in the jurisdiction. Where the “No” box is not checked, that section is adopted.
2. Where a numerical value is listed to specify the level of performance, the jurisdiction shall indicate the required value to be adopted. Where a numerical value is not indicated, the value in the text is adopted without change.

In addition to the jurisdictional options listed in Table 101.5.1, the code also provides for optional jurisdictional adoption of Informative Appendix G, Option for Energy Efficiency Using the IECC Prescriptive Compliance Path and Informative Appendix M, Option for Residential Compliance Using the National Green Building Standard. Where the jurisdiction adopts Appendix G, compliance with Sections 701.3 (7.3) and 701.4 (7.4) of this code shall be as specified in Appendix G.

PROPOSED AMENDMENT:

IgCC Table 101.5.1 Requirements Determined by the Jurisdiction, is amended as follows:

All of the code sections listed in the Table are adopted as “optional” requirements. Compliance with the *2024 International Green Construction Code* is voluntary as determined by the design professional.

Justification:

All of the code sections listed in this Table shall be indicated as “Optional” because compliance with the 2024 International Green Construction Code (IgCC) is voluntary as adopted by the City of Glendale. The adoption of the IgCC provides the design professional with a set of ICC established standards for increased sustainability.

Included in the 2018 Code Amendments: NO

The IgCC is being adopted for the first time.

IgCC Chapter 1 Proposed Amendment

Original Text:

The balance of Chapter 1 is being deleted.

PROPOSED AMENDMENT:

IgCC Chapter 1, Administration is amended by the deletion of Sections 102 through 110. For administration of this code, see the *2024 International Building Code* and related amendments.

Justification:

The City of Glendale uses Chapter 1 of the *International Building Code* for its code administrative requirements to avoid duplication and conflicts.

Included in the 2018 Code Amendments: NO

The IgCC is being adopted for the first time.