# 2022 CITY OF SCOTTSDALE AMENDMENTS TO THE INTERNATIONAL RESIDENTIAL CODE, 2021 EDITION

Ordinance No. 4550, Resolution No. 12499

DRAFT

**2022 City of Scottsdale Amendments**
**to the International Residential Code, 2021 Edition**

**SCOTTSDALE REVISED CODE**
**CHAPTER 31 – BUILDINGS AND BUILDING REGULATIONS**

**ARTICLE II. INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS**
**DIVISION. 1. ADOPTED CODE**
**Sec. 31-50. International Residential Code for One- and Two-Family Dwellings adopted and amended.**
The International Residential Code for One- and Two-Family Dwellings (IRC), 2021 Edition, including appendices AA, AB, AC, AH, AJ, AK, AR, AS, AT and AU, as published by the International Code Council, Inc., declared a public record by city Resolution No. 12499, are adopted as part of the city Building Code.

**DIVISION. 2. AMENDMENTS TO IRC**

**Sec. 31-51. IRC CHAPTER 1 – amendments.**

*(a) Section 101.1, Title, is amended to read as follows:*
**101.1 Title.** These regulations shall be known as the Residential Code for One- and Two-family dwellings of the City of Scottsdale and will be referred to herein as "this code."

*(b)* To the extent that Chapter 1 of the International Residential Code for One- and Two-Family Dwellings, 2021 Edition, conflicts with the city amendments to Chapter 1 of the International Building Code, 2021 Edition, the amendments to the International Building Code prevail.

**Sec. 31-52. IRC CHAPTER 3 BUILDING PLANNING - amendments.**
*Only the following portions of CHAPTER 3 BUILDING PLANNING, are amended.*

*(a) Table R301.2, CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA, is amended to read as follows:*

| **TABLE R301.2<br>CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA** | |
|---|---|
| Ground snow load | 0 |
| Wind speed | 105 mph |
| Topographic effects | No |
| Special wind region | No |

| | |
|---|---|
| Windborne debris zone | No |
| Seismic design category: | B |
| Weathering | Negligible |
| Frost line depth | Final grade |
| Termite | Moderate |
| Ice barrier underlayment required | No |
| Flood hazard | AO designated flood zone |
| Air freezing index | 0 |
| Mean annual temperature | 71.2°F |
| **MANUAL J DESIGN CRITERIA** | |
| Elevation: | 1,473 feet |
| Latitude: | 33.62 N |
| Altitude correction factor | 0.97 |
| Daily range | High (H) |
| Mean coincident wet bulb | 70°F |
| Indoor summer design relative humidity | 45% |
| Indoor summer design dry-bulb temperature: | Minimum of 75°F |
| Indoor winter design dry-bulb temperature: | Maximum of 72°F |
| Outdoor summer design dry-bulb temperature: | 108°F |
| Outdoor winter design dry-bulb temperature: | 37°F |
| Heating temperature difference | 20.6 °F |
| Cooling temperature difference | 20.1°F |

*(b) Table R301.5, MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS,* is amended to read *as follows. All other values remain unchanged.*

**TABLE R301.5**
**MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS (In pounds per square foot)**

| USE | UNIFORM LIVE LOAD (psf) |
|---|---|
| Uninhabitable attics with limited storage[b, g] | 40 |

| USE | UNIFORM LIVE LOAD (psf) |
|---|---|
| Sleeping areas | 40 |

*(c) Section R303.3, Bathrooms, is amended to read as follows:*

**R303.3 Bathrooms.** Bathrooms, water closet compartments and other similar rooms shall be provided with a permanently installed lighting fixture and local exhaust fan. The minimum local exhaust rates shall be determined in accordance with Section M1505. Exhaust air from the space shall be exhausted directly to the outdoors.

**Exception:** A local exhaust fan system shall not be required for bathrooms and water closet compartments located in an unconditioned space with an openable window area of not less than 1.5 square feet (0.15 $m^2$).

**R303.3.1 Exhaust fan controls**. Exhaust fans shall be switched separately from lighting systems. Except where functioning as a component of a whole house ventilation system, exhaust fans in bathrooms with a shower or tub shall be provided with a delay timer or humidity/condensation control switch.

*(d) Section R303.10, Required heating, is amended to read as follows:*

**R303.10 Required heating and cooling.** Dwellings shall be provided with heating per Section R303.10.1 and cooling per Section R303.10.2.

**R303.10.1 Heating.** Heating facilities shall be provided, capable of maintaining a room temperature of not less than 68°F (20°C) in all habitable rooms, bathrooms and toilet rooms, based on the winter design temperature of 34°F (01°C), per Appendix D of the International Plumbing Code. Cooking appliances and portable space heaters shall not be used to achieve compliance with this section.

**Exception:** Heating systems are not required for interior spaces where the primary purpose of the space is not associated with human comfort.

**R303.10.2 Cooling.** Cooling facilities shall be provided, capable of maintaining room temperature of not more than 85°F (29°C) in all habitable rooms, bathrooms and toilet rooms, based on the summer design temperature of 107°F (42°C), per Appendix D of the International Plumbing Code.

**Exception:** Cooling systems are not required for interior spaces where the primary purpose of the space is not associated with human comfort.

*(e) A new Section R306.5, Trash disposal and recycling facilities, is added to read as follows:*

**R306.5 Trash disposal and recycling facilities.** Every *dwelling unit* shall be provided with a kitchen cabinet pull-out compartment containing not less than two 7-gallon bins for the separation and collection of trash and recyclable materials.

*(f) Section R313 Automatic Fire Sprinkler Systems is amended to read as follows:*

**R313 Automatic Fire Sprinkler Systems.** See Scottsdale Revised Code, Chapter 36, for automatic fire sprinkler system requirements.

**Sec. 31-53. IRC CHAPTER 4 FOUNDATIONS - amendments.**

*Only the following portions of CHAPTER 4 FOUNDATIONS, are amended.*

*(a) Section R403.1.1, Minimum size, is amended to read as follows:*

**R403.1.1 Minimum size.** The minimum width, W, and thickness, T, for concrete footings shall be in accordance with Tables R403.1(1) through R403.1(3) and Figure R403.1(1) or R403.1.3, as applicable, but not less than 12 inches in width and 6 inches in depth.

All footings in these tables shown as 12 to 16 inches wide shall be at least 16 inches wide. All footings in these tables shown as 17 to 24 inches wide shall be at least 24 inches wide. All footings in these tables shown as 25 to 32 inches wide shall be at least 32 inches wide. All footings in these tables shown as greater than 32 inches wide shall be as stated or larger.

Maximum bearing pressure from service loads shall not exceed 1500 psf. Footing projections, P. shall be not less than 2 inches and shall not exceed the thickness of the footing. Footing thickness and projection for fireplaces shall be in accordance with Section R1001.2.

The size of footings supporting piers and columns shall be based on the tributary load and allowable soil pressure. An isolated column carrying a load greater than 750 lbs. shall be supported on a minimum 4 square feet of footing, with minimum width of 24 inches.

A certified soils report from a registered design professional may be used in lieu of these requirements.

*(b) Section R403.1.4, Minimum depth, is amended to read as follows, with the subsections remaining the same:*

**R403.1.4 Minimum depth.** All footings shall be placed at least 18 inches (457 mm) below the undisturbed ground surface or engineered fill. 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.

**Sec. 31-54. IRC CHAPTER 5 FLOORS - amendments.**

*Only the following portion of CHAPTER 5 FLOORS, is amended.*

*(a) A new Section R502.11.4.1, Deferred submittals, is added to read as follows:*

**R502.11.4.1 Deferred submittals.** Floor truss design drawings may be submitted in compliance with Section 107.3.4.1 of the International Building Code (IBC).

**Sec. 31-55 IRC CHAPTER 7 WALL COVERING – amendments**

*(a) Section R703.7.2.1, Weep Screeds, is amended by adding the following:*

**Exception:** Weep screeds are not required to maintain a 2-inch (51 mm) clearance above paved areas where located under overhang at least 36 inches (914 mm) wide. They shall be installed per manufacturer's instructions.

**Sec. 31-56. IRC CHAPTER 8 ROOF-CEILING CONSTRUCTION - amendments.**
*Only the following portions of CHAPTER 8 ROOF-CEILING CONSTRUCTION, are amended.*

*(a) A new Section R802.10.1.1, Deferred submittals, is added to read as follows:*

**R802.10.1.1 Deferred submittals.** Roof truss design drawings may be submitted in compliance with Section 107.3.4.1 of the IBC.

*(b) Section R806.1, Ventilation, is amended by adding the following exception:*

**Exception:** Enclosed attic and rafter spaces are not required to be ventilated where there is 24 inches or less between the bottom of roof sheathing and the ceiling.

**Sec. 31-57. IRC CHAPTER 9 ROOF ASSEMBLIES - amendments.**
*Only the following portion of CHAPTER 9 ROOF ASSEMBLIES, is amended.*

*(a) Section R905.5, Mineral-surfaced roll roofing, is revised by adding the following:*

**R905.5.6 Drip edge.** A drip edge shall be provided at eaves and rake edges. Adjacent segments of drip edge shall overlap not less than 2 inches (51 mm). Drip edges shall extend not less than 1/4 inch (6.4 mm) below the roof sheathing and extend onto the roof deck not less than 2 inches (51 mm). Drip edges shall be fastened to the roof deck at not more than 12 inches (305 mm) on center with fasteners as specified in Section R905.2.5. Underlayment shall be installed over the drip edge along eaves, and under the drip edge along rake edges.

**Sec. 31-58. IRC CHAPTER 10 CHIMNEYS AND FIREPLACES - amendments.**

*Only the following portions of CHAPTER 10 CHIMNEYS AND FIREPLACES, are amended.*

(a) *A new Section R1007,* Clean Burning Fireplaces, Woodstoves and Solid Fuel Burning Devices *is added to read as follows:*

**SECTION R1007**

**CLEAN BURNING FIREPLACES, WOODSTOVES AND SOLID FUEL BURNING DEVICES**

**R1007.1 Purpose.** This Section regulates fireplaces, woodstoves, and other solid fuel burning devices to reduce air pollution caused by particulate matter and carbon monoxide.

**R1007.2 Installation restrictions.**

1. Only the following fireplaces, woodstoves and solid fuel burning devices are permitted:
   1.1 A fireplace with a permanently-installed gas or electric log insert.
   1.2 A fireplace, woodstove, or solid fuel burning device certified by the United States Environmental Protection Agency as conforming to 40 Code of Federal Regulations Part 60, Subpart AAA, as amended.
   1.3 A fireplace, woodstove or solid fuel burning device listed by a nationally-recognized testing agency as meeting performance standards equivalent to 40 Code of Federal Regulations Part 60, Subpart AAA, as amended.

1.4 A fireplace, woodstove or other solid fuel burning device determined by the Maricopa County Air Quality Department as meeting performance standards equivalent to 40 Code of Federal Regulations Part 60, Subpart AAA, as amended.

1.5 A fireplace with a permanently-installed woodstove insert which complies with paragraph 1.2, 1.3, or 1.4 above.

2. The following are not regulated by these requirements:
   2.1 Furnaces, boilers, incinerators, kilns, and similar space-heating equipment.
   2.2 Industrial process equipment.
   2.3 Cook-stoves, barbecue grills, and similar appliances designed primarily for cooking.

**R1007.3 Alterations prohibited.**

1. No permanently-installed gas or electric log insert, or woodstove insert, in a fireplace, shall be altered or removed to convert the fireplace to burn wood or other solid fuel.
2. No alteration shall be made to a fireplace, woodstove or solid fuel burning device to void its certification or remove its compliance with this section.

**R1007.4 Permits required.** Construction, installation and alteration of all fireplaces; woodstoves; and gas, electric and solid fuel burning devices and equipment, are subject to the requirements, permits and inspections of this code.

*(b) A new Section R1008,* Chimneys and Fireplaces *is added to read as follows:*

**R1008 CHIMNEYS AND FIREPLACES**

**R1008.1 Outdoor wood-burning devices.** Outdoor fireplaces, woodstoves, fire pits and other devices capable of burning wood shall be installed:

1. At least 8 feet from any property line that abuts another property; or
2. At least 10 feet from any property line in a zero lot line subdivision.

**Exceptions:**

1. When a property line abuts a street or alley, the setback for these devices shall comply with the Zoning Ordinance.
2. The building official may allow a smaller setback if safety standards are met.

**R1008.2 Outdoor gas devices.** Outdoor fireplaces, fire pits and other devices that burn gas only shall be vented as required by IRC Chapter 24 - Fuel Gas.

**R1008.3 Chimneys and flues.** Fireplaces, woodstoves, fire pits and other devices with a chimney or flue shall comply with Section R1003.9 Termination.

**R1008.4 Code compliance.**

1. Construction, installation and alteration of all outdoor fireplaces; woodstoves; fire pits and similar gas, electric and solid fuel burning devices and equipment, are subject to the requirements, permits and inspections of this code.

   **Exception:** No permit is required for the masonry surround for outdoor fireplaces; woodstoves; fire pits and similar gas, electric, and solid fuel burning devices.
2. With the permit application, a site plan shall be submitted indicating the location of the device and its proximity to the property line, alley, public right-of-way and all structures on the property.

**Sec. 31-59. IRC CHAPTER 11 ENERGY EFFICIENCY - amendments.**

*Only the following portions of CHAPTER 11 ENERGY EFFICIENCY, are amended.*

*(a) Section N1101.6 (R202), Defined terms, is amended by adding the following:*

**ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE).** The conductors, including the ungrounded, grounded, and equipment grounding conductors, and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

(b) *Table N1102.1.2 (R402.1.2), Maximum Assembly U-Factors and Fenestration Requirements, - Ceiling U-Factor, is amended to read as follows:*

| CLIMATE ZONE | CEILING U-FACTOR |
|---|---|
| 2 | 0.036 |

(c) *Table N1102.1.3 (R402.1.3), Insulation Minimum R-Values and Fenestration Requirements by Components – Ceiling R-Value, is amended to read as follows:*

| CLIMATE ZONE | CEILING R-VALUE |
|---|---|
| 2 | 38 |

*(c) Section N1102.2.13 (R402.2.13), Roof solar reflectance and thermal emittance, is added to read as follows:*

**N1102.2.13 (R402.2.13) Roof solar reflectance and thermal emittance.** Low-sloped roof surfaces over conditioned and unconditioned spaces in *Climate Zones* 0 through 3 shall comply with one or more of the options in Table N1102.2.13 (R402.2.13).

**Exception:** Portions of the roof that are covered by roof decks, vegetation, walkways, skylights, and solar energy systems are exempt from the requirements of Table N1102.2.13 (R402.2.13).

**TABLE N1102.2.13 (R402.2.13)**
**MINIMUM ROOF REFLECTANCE AND EMITTANCE OPTIONS**

| |
|---|
| Three-year-aged solar reflectance index (SRI) of 64 |
| Three-year-aged solar reflectance index (SRI) of 55 and a three-year aged thermal emittance of 0.75 |

(d) *Table 1102.4.1.1 (R402.4.1.1), Air Barrier, Air Sealing and Insulation Installation – Rim Joists is revised to read as follows:*

| COMPONENT | AIR BARRIER CRITERIA INSULATION | INSTALLATION CRITERIA |
|---|---|---|
| Rim joists | Rim joists shall include an air barrier.[b] | Rim joists shall be insulated so that the insulation maintains |

| | | |
|---|---|---|
| | The junctions of the rim board to the sill plate and the rim board and the subfloor shall be air sealed. | permanent contact with the exterior rim board.[b] |

(e) *Section N1102.4.6 (R402.4.6), Electrical and communication outlet boxes (air-sealed boxes), is amended to read as follows:*

**N1102.4.6 (R402.4.6) Electrical and communication outlet boxes (air-sealed boxes).** Where air-sealed boxes are required by Table N1102.4.1.1 (R402.4.1.1), electrical and communication boxes shall comply with all of the following:

1. be tested in accordance with NEMA OS 4, Requirements for Air-Sealed Boxes for Electrical and Communication Applications;
2. have an air leakage rate of not greater than 2.0 cubic feet per minute (0.944 L/s) at a pressure differential of 1.57 psf (75 Pa);
3. be marked “NEMA OS 4” or “OS 4” in accordance with NEMA OS 4; and
4. be installed per the manufacturer’s instructions and with any supplied components required to achieve compliance with NEMA OS 4.

(f) *Section N1103.3.2 (R403.3.2), Ducts located in conditioned space, item 3.3 is amended to read as follows:*

**3.3** A minimum R-13 insulation installed in the cavity width separating the duct from conditioned space.

(g) *Section N1103.5.1.1.1 (R403.5.1.1.1), Demand recirculation water systems, is amended to read as follows:*

**N1103.5.1.1.1 (R403.5.1.1.1) Demand recirculation water systems.** Demand recirculation water systems are required when the length of hot water supply piping from the source of hot water to the furthest fixture fitting exceeds the specified length in Table N1103.5.1.1.1 (R403.5.1.1.1). 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 piping before a recirculating hot water system is required. For the purpose of this section, the source of hot water shall be a water heater, boiler, circulation loop piping, distribution manifold, or heat-traced piping.

Demand recirculation water systems shall have controls that start the pump upon receiving a signal from the action of a user of fixture or appliance or sensing the flow of hot or tempered water to a fixture fitting or appliance.

| **Table N1103.5.1.1.1 (R403.5.1.1.1) DEMAND RECIRCULATION WATER SYSTEM REQUIREMENT BASED ON PIPE SIZE AND LENGTH** | |
|---|---|
| **Nominal Pipe Size (inches)** | **Piping Length (feet)** |
| 3/8 inch line or less | > 50 feet |

| | |
|---|---|
| 1/2 inch line | > 43 feet |
| 5/8 inch line | > 32 feet |
| 3/4 inch line | > 21 feet |

(h) *Section N1104.1 (R404.1), Lighting equipment is amended by adding the following exception:*

**Exception**: Where controlled by a dimmer switch, not more than 10 percent of permanently installed lighting fixtures shall be permitted to be installed without *high-efficacy lighting sources*.

(i) *Section N1104.2 (R404.2), Interior lighting controls, is deleted in its entirety.*

(j) A new *Section N1104.4 (R404.4), Electric Vehicle (EV) charging infrastructure, is added as follows:*

**N1104.4 (R404.4) Electric Vehicle (EV) charging infrastructure.** New construction shall accommodate future installation and use of *Electric Vehicle Supply Equipment (EVSE)* in accordance with the *National Electrical Code (NFPA 70).*

**N1104.4.1 (R404.4.1) EV-capable charging.** The main electrical service panel shall have a reserved space to allow installation of a full size 2-pole circuit breaker for future EV charging and shall be labeled “Future EV Charging”. Where the electrical service panel is located beyond the perimeter of the garage wall, a raceway shall be installed from the electrical service panel to a location within the garage, where it shall terminate in a junction box or outlet and be labeled “Future EV Charging”.

(k) *Table N1105.2 (R405.2), Requirements for Total Building Performance – Building Thermal Envelope and Electrical Power and Lighting Systems, are revised by adding a new line for Sections N1102.2.13 (R402.2.13) and N1104.4 (R404.4) as follows:*

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

| | |
|---|---|
| **Building Thermal Envelope** | |
| N1102.2.13 (R402.2.13) | Roof solar reflectance and thermal emittance. |
| **Electrical Power and Lighting Systems** | |
| N1104.4 (R404.4) | Electric vehicle charging infrastructure |

(l) *Table N1106.2 (R406.2), Requirements for Energy Rating Index - Building Thermal Envelope and Electrical Power and Lighting Systems, are revised by adding a new line for Sections N1102.2.13 (R402.2.13) and N1104.4 (R404.4) as follows:*

**TABLE N1106.2 (R406.2)**
**REQUIREMENTS FOR ENERGY RATING INDEX**

| Building Thermal Envelope | |
|---|---|
| N1102.2.13 (R402.2.13) | Roof solar reflectance and thermal emittance. |
| **Electrical Power and Lighting Systems** | |
| N1106.3 (R406.3) | Building thermal envelope |

(m) *Section N1106.4 (R406.4), Energy Rating Index, is amended to read as follows:*

**N1106.4 (R406.4) Energy Rating Index.** The Energy Rating Index (ERI) shall be determined in accordance with ANSI/RESNET/ICC 301. The mechanical ventilation rates used for the purpose of determining the ERI shall not be construed to establish minimum ventilation requirements for compliance with this code.

Energy used to recharge or refuel a vehicle used for transportation on roads that are not on the building site shall not be included in the *ERI reference design* or the *rated design*. For compliance purposes, any reduction in energy use of the rated design associated with on-site renewable energy shall not exceed 5 percent of the total energy use.

(n*) Equation 11-5 is deleted.*

(o) *Section N1108.2 (R408.2), Additional efficiency package options, is amended to read as follows:*

**N1108.2 (R408.2) Additional efficiency package options.** Additional efficiency package options for compliance with Section N1108.13.5 are set forth in Sections N1108.2.1 through N1108.2.6.

(p) A new *Section N1108.2.6 (R408.2.6), On-site renewable energy, is added as follows:*

**N1108.2.6 (R408.2.6) On-site renewable energy option**. Provide an on-site renewable energy generation system that meets one of the following:

1. Provides a total rated capacity of not less than 2 watts per square foot (22 W/m$^2$) of the total *conditioned floor area*.
2. Provides not less than 50 percent of the estimated annual energy use within the building for mechanical, service water-heating, lighting and electric vehicle charging.

**Sec. 31-60. IRC CHAPTER 15 EXHAUST SYSTEMS - amendments.**

*Only the following portions of CHAPTER 15 EXHAUST SYSTEMS, are amended.*

(a) *Section M1503.3, Exhaust discharge, is amended by deleting the exception.*

*(b) Section M1505.2, Recirculation of air, is amended to read as follows:*

**M1505.2 Recirculation of air.** Exhaust air from bathrooms, toilet rooms and kitchens shall be exhausted directly to the outdoors and not recirculated indoors. Exhaust air from bathrooms, toilet rooms and kitchens shall not discharge into an attic, crawl space or other areas inside the building.

**Sec. 31-61. IRC CHAPTER 29 WATER SUPPLY AND DISTRIBUTION – amendments.**

*Only the following portion of CHAPTER 15 WATER SUPPLY AND DISTRIBUTION, is amended.*

*(a) Table P2903.2, MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS, is amended to read as follows:*

**TABLE P2903.2**
**MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS[b]**

| PLUMBING FIXTURE OR FIXTURE FITTING | MAXIMUM FLOW RATES AND OR QUANTITY |
|---|---|
| Lavatory faucet | 1.5 gpm at 60 psi |
| Shower head[a] | 2.0 gpm at 80 psi |
| Kitchen faucet[c] | 1.8 gpm at 60 psi |
| Sink faucet | 2.2 gpm at 60 psi |
| Water closet | 1.28 gallons per flushing cycle [d,e] |

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

a. The total flow rate from all shower fixtures controlled by one valve shall not exceed 2.0 gpm. This includes hand-held sprays, body sprays, jets, waterfalls, and rain systems.
b. Consumption tolerances shall be determined from referenced standards.
c. Kitchen faucets shall be permitted to temporarily increase the flow greater than 1.8 gpm but shall not exceed 2.2 gpm and must automatically revert to the established maximum flow rate of 1.8 gpm upon physical release of the activation mechanism or closure of the faucet valve.
d. For dual flush, the full-flush volume shall not exceed 1.28 gallons.
e. 1.6 gallons per flushing cycle is permitted in existing buildings where a water closet is connected to a building's existing sanitary drainage piping.

**Sec. 31-62. IRC CHAPTER 30 SANITARY DRAINAGE - amendments.**

*Only the following portion of CHAPTER 30 SANITARY DRAINAGE, is amended.*

*(a) A new exception to Section P3009.8, Percolation tests, is added to read as follows:*

**Exception:** A percolation test is not required where a graywater system is installed with a maximum discharge rate of 160 gallons per day as determined by this code based on the number of occupants and connected fixtures. Graywater systems shall comply with Arizona Department of Environmental Quality rules and guidelines.

**Sec. 31-63. IRC CHAPTER 39 POWER AND LIGHTING DISTRIBUTION - amendments.**

*Only the following portion of CHAPTER 39 POWER AND LIGHTING DISTRIBUTION, is amended.*

*(a) Section E3908.9, Types of equipment grounding conductors, is amended to read as follows:*

**E3908.9 Types of equipment grounding conductors.** Equipment grounding conductors shall comply with the National Electric Code as adopted and amended in Article III of this Chapter.

**[Sections 31- 64: Reserved]**

**DIVISION. 3. ADOPTION AND AMENDMENTS TO IRC: APPENDICES**

**Sec. 31-65. Appendices to IRC.**

The following appendices are adopted:

APPENDIX AA - SIZING AND CAPACITIES OF GAS PIPING
APPENDIX AB - SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS
APPENDIX AC - EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS
APPENDIX AH - PATIO COVERS
APPENDIX AJ - EXISTING BUILDINGS AND STRUCTURES
APPENDIX AK - SOUND TRANSMISSION
APPENDIX AR - LIGHT STRAW-CLAY CONSTRUCTION
APPENDIX AS - STRAWBALE CONSTRUCTION
APPENDIX AT - SOLAR-READY PROVISIONS - DETACHED ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES
APPENDIX AU - COB CONSTRUCTION (MONOLITHIC ADOBE)

**Sec. 31-66. APPENDIX AH – PATIO COVERS – amendments.**

*(a)* A new *Section AH103.3, Fire rating, is added to read as follows:*

**AH103.3 Fire rating.** All patio covers shall be protected with a one-hour fire-resistive wall and parapet where:

1. Combustible patio covers are less than 3 feet from the property line.
2. Non-combustible patio covers are less than 1 foot 6 inches from the property line.

**Exception:** Where the one-hour fire-resistive wall and parapet are required, a one-hour roof-ceiling assembly may be substituted for the parapet if:

a. The roof-ceiling framing members are parallel to the one-hour wall, and the one-hour roof-ceiling assembly extends at least 5 feet from wall.
b. The roof-ceiling framing members are perpendicular to the one-hour wall, and the entire span of the framing is at least one-hour fire-resistive construction.
c. Openings in the roof are at least 5 feet from the property line.

**Sec. 31-67. APPENDIX J of IBC applicable to IRC.**

Appendix J Grading, of the IBC, and the city amendments to APPENDIX J, are applicable to the IRC.

**Sec. 31-68. APPENDIX AT – SOLAR-READY PROVISIONS – DETACHED ONE AND TWO FAMILY DWELLINGS AND TOWNHOUSES – amendments.**

*(a) Section AT103.3 (RB103.3), Solar-ready zone area, is amended to read as follows:*

**AT103.3 (RB103.3) Solar-ready zone area.** The total solar-ready zone area shall be not less than 10 percent of the roof area calculated as the horizontally projected gross roof area but not less than 300 sq. ft. exclusive of areas covered by skylights, occupied roof decks, vegetative roof areas and mandatory access or setback areas as required by the *International Fire Code*. New townhouses three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 square feet (185.8 $m^2$) per dwelling shall have a solar-ready zone area of not less than 150 square feet (13.94 $m^2$). The solar-ready zone shall be composed of areas not less than 5 feet (1524 mm) in width and not less than 80 square feet (7.44$m^2$) exclusive of access or setback areas as required by the *International Fire Code*.

*(b) Section AT103.6 (RB103.6), Capped roof penetration sleeve, is deleted.*

*(c) Section AT103.10 (RB103.10), Construction documentation certificate, is deleted*.

**[Section 31-69: Reserved.]**

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