# AMENDMENTS TO THE 2018 INTERNATIONAL RESIDENTIAL CODE

# **Chapter 1 Scope and Administration.** Revise as follows:

Delete Section R102 Applicability and Part 2- Administration and Enforcement. (Deleted sections are administered by 2018 IBC, Chapter 1).

## Section R101.1 Title. Revise as follows:

Insert: [NAME OF JURISDICTION] as, "Town of Sahuarita, AZ."

# Add the following section:

## "Section R102.8 Fire flow and fire access.

New construction under this code shall conform to the *International Fire Code* Sections 102.5 Application of Residential Code, 503 Fire Apparatus Access Roads, 507.3 Fire Flow, 3310 Access for Fire Fighting, 3312 Water Supply for Fire Fighting, Appendix B Fire-Flow Requirements for Buildings, Appendix C Fire Hydrant Locations and Distribution and Appendix D Fire Apparatus Access Roads."

# **Section R105.2 Work exempt from permit.** Revise as follows:

## **Building:**

Item Number 2. Add to the end of this sentence:

"and masonry or concrete walls not over 6 feet (1829 mm) in height above natural grade, which do not retain earth."

## Section 108.2 Schedule of permit fees. Revise as follows:

Delete, "schedule as established by the applicable governing authority," and replace with:

"schedule as established by The Town of Sahuarita Code."

## Section R110.3 Certificate issued. Revise as follows:

At the end of this section add the sentence:

"The building final inspection approval shall be the Certificate of Occupancy for detached single family residences."

## Table R301.2(1) Climatic and Geographic Design Criteria. Revise as follows:

Ground Snow Load 0 psf

Topographic Effects As Required

Wind Speed 115 mph 3 second gust

Seismic Design Category B Weathering Negligible

Frost Line Depth 0

Termite Moderate to Heavy
Winter Design Temperature Refer to N1101.09.1

Flood Hazards Per Pima County Flood Control District

## Section R302.1 Exterior Walls. Revise as follows:

Delete section (in its entirety, including referenced tables) and replace with the following:

"Exterior walls with a fire separation distance less than 3 feet (914mm) shall have not less than a one-hour fire-resistive rating with exposure from both sides. Projections shall not extend to a point closer than 2 feet (610 mm) from the line used to determine the fire separation distance. Projections extending into the fire separation distance shall have not less than one-hour fire-resistive

construction on the underside. The above provisions shall not apply to walls which are perpendicular to the line used to determine the fire separation distance.

#### **Exceptions:**

- 1. Detached garages accessory to a dwelling located within 2 feet of a lot line may have roof eave projections not exceeding 4 inches.
- 2. Tool and storage sheds, playhouses, ramadas and similar structures exempted from permits are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line."

### Add the following section:

**"Section R302.1.1 Openings.** Openings shall not be permitted in the exterior wall of a dwelling with a fire separation distance less than 3 feet. This distance shall be measured perpendicular to the line used to determine the fire separation distance.

#### **Exceptions:**

- 1. Penetrations shall be permitted in walls that are perpendicular to the line used to determine the fire separation distance.
- 2. Foundation vents installed in compliance with this code are permitted."

## **Section R303.5.1 Intake openings.** Revise as follows:

Add the following exception 4:

**"Exception:** Replacement of existing evaporative coolers where the building official determines that the replacement does not constitute a high degree of hazard."

# Section R303.10 Required heating. Revise as follows:

Add the following exception:

"Exception: Spaces able to maintain 60°F at a point 3 feet above the floor and 2 feet from exterior walls in all habitable rooms over a 48 hour period as demonstrated by section N1105 Simulated performance alternative."

## Section R309.5 Fire sprinklers. Revise as follows:

Delete section in its entirety.

#### **Section R313 Automatic Fire Sprinkler Systems**. Revise as follows:

Delete section in its entirety.

#### **Section R319.1 Address Numbers.** Revise as follows:

Delete this section in its entirety and replace with:

"Addressing shall be in compliance with the Pima County address display requirements."

#### Section R322.1.7 Protection of water supply and sanitary sewage systems. Revise as follows:

Delete "and Chapter 3 of the International Private Sewage Disposal Code."

# **Section R802.11.1 Uplift resistance.** Revise as follows:

Delete section in its entirety and add the following:

"Uplift resistance to minimize microburst effects shall be determined by either method 1 or 2 below:

# 1. Design-based wind uplift criteria

Wind uplift requirements shall be determined by using the design wind value of 115 mph within Table R802.11 for the continuous load path transmitting the uplift forces from the rafter or truss ties to the foundation.

## 2. Prescriptive-based wind uplift criteria

(Please note that the requirements of this section are in addition to those required for the structural connection of wood members).

## 2.1. Conventionally-framed wood or cold-formed steel structures

All bearing wall vertical connections shall be made with either approved structural sheathing or approved fasteners to provide a continuous load path from the joist or truss through the ledger or top plate to the bottom wall plate. Where fasteners are used, they shall be minimum Simpson H2.5 (A34 at ledger), or equivalent load capacity, of configuration to match connection and spaced at intervals not to exceed 24 inches (610 mm). At openings, lower cripple studs do not require fasteners but king/trimmer studs require double fasteners at bottom and upper cripples require both full fastening to header as well as header to king stud. All platform framing requires either fasteners listed for the purpose or continuous sheathing over rim joist from stud to stud vertically at each floor level.

All non-bearing exterior walls shall be fastened as above except that the spacing may be extended not to exceed every other stud.

## 2.2. Masonry or concrete structures

If lateral design requires larger anchors or more conservative spacing, these may be used in lieu of those called out in this section.

#### 2.2.1. Roof bearing on wall top plate

Top plates shall be secured to masonry or concrete walls with minimum 0.5 inch embedded anchor bolts spaced at intervals not to exceed 48 inches. Each joist or truss shall be fastened to plate at bearing with minimum Simpson H2.5 or equivalent load capacity and of configuration to match connection. Gable end joists or trusses shall also be fastened at intervals not to exceed 48 inches.

## 2.2.2. Roof bearing on wall ledger

Joists or trusses bearing on a wall ledger shall be secured to masonry or concrete walls with minimum Simpson PAI23 purlin anchors or equal with equivalent load capacity listed for the application and embedded into wall per listing at intervals not to exceed 48 inches. Nonbearing roof diaphragm edges shall have the outermost joist or truss likewise anchored to the wall through blocking.

#### 2.3. Structural steel structures

Structural steel buildings shall have roof members attached by either welds, bolts, screws or other similarly approved connections at intervals not to exceed 48 inches. Ledger designs shall connect to roof trusses with fasteners listed for the purpose at intervals not to exceed 48 inches on all diaphragm sides. If lateral design requires larger anchors or more conservative spacing, these may be used in lieu of those called out in this section."

# Section N1101.4 (R102.1.1) Above code programs. Revise as follows:

Add the following at the end of the paragraph:

"Compliance with the Net-Zero Energy Standard shall be deemed to comply with this code."

# Add the following section:

# "Section N1101.9.1 (R302.2) Exterior design conditions.

# Table N1101.11.1 Exterior Design Conditions"

Winter	Design Dry Bulb Temp	35°F
Summer	Design Dry Bulb Temp	105°F
	Design Wet Bulb Temp	66°F
Climate zone		2B

#### **Table N1102.1.4 (R402.1.4) U-Factor alternative.** Revise as follows:

Add the following to the end of footnote b:

"In climate zone 2, an un-insulated earth mass wall with a maximum U-factor of 0.14 shall be deemed in compliance (for computing the U-factor, an R value of 0.3 per inch shall be used for adobe and rammed earth)."

## Section N1102.4.1.2 (R402.4.1.2) Testing. Revise as follows:

Delete the third sentence and replace with the following:

"Testing shall be conducted by individuals holding current certification for such testing from Residential Energy Services Network (RESNET), Building Performance Institute (BPI) or other approved agencies."

# Section M1411.3 Condensate disposal. Revise as follows:

Add the following at the end of the paragraph:

"Condensate disposal shall be allowed to terminate as follows:

- 1. Into an approved fixture tailpiece, funnel drain, waste air gap fitting, floor sink, slop sink and laundry tray.
- 2. At or below grade outside the building in an area capable of absorbing the condensate flow without surface drainage.
- 3. Over roof drains or gutters or downspouts that connect to drainage pipes, provided they terminate at or above grade in an area capable of absorbing the condensate flow without surface drainage."

# Add the following section:

## "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."

## Section P2603.5.1 Sewer depth. Revise as follows:

Insert: [NUMBER] as "12," in both locations.

#### Section P2801.6.1 Pan size and drain. Revise as follows:

Add the following at the end of the paragraph:

"A pan drain shall not be required when a water heater is installed in a garage."

# Section P2804.6.1 Requirements for discharge pipe. Revise as follows:

Delete item number 2.

## Section P2902.5.4 Connection to automatic fire sprinkler systems. Revise as follows:

Delete section in its entirety and replace with the following:

"The potable water supply to automatic fire sprinkler and standpipe systems shall be protected against backflow in accordance with ARS § 41-2168"

## **Table P2903.1 Required capacities at point of outlet discharge.** Revise as follows:

Delete the column titled "FLOW PRESSURE (psi)" in its entirety.

# Section P2904.1.1 Required sprinkler locations. Revise as follows:

Delete the first sentence and replace with the following:

"Sprinklers are not required within dwelling units that meet fire-flow requirements of the *International Fire Code*. This section serves as a guide for voluntary installation or to allow for a fire separation reduction within sections R302.2 and R302.3."

## **Section P3008.1 Where Required.** Revise as follows:

Delete section in its entirety and replace with:

"Where the finish floor elevation is less than 12 inches above the elevation of the next upstream manhole cover in the sewer, a backwater valve shall be installed in the building drain or branch of the building drain serving that floor. Floors discharging from above that reference point shall not discharge through the same back water valve."

# Section P3009 Subsurface landscape Irrigation Systems. Revise as follows:

Delete section in its entirety. Shall comply with Arizona Administrative Code Title 18, Chapter 9.

### Add the following section:

## "Section E3703.8 Dishwasher and Garbage Disposer Branch Circuits – Dwelling Units.

In residential occupancies, dishwasher and garbage disposer may be on the same 20-ampere branch circuit."

#### Add the following section:

#### "Section E3802.9 Earthen material wiring method.

Type UF Cable shall be permitted to be used in mortar joints of adobe construction in occupancies where the use of Nonmetallic Sheathed Cable is permitted by this code."

#### Adopt the following Appendices:

**Appendix H: Patio Covers** 

**Appendix R: Light Straw-Clay Construction** 

**Appendix S: Strawbale Construction**