PIMA COUNTY
DEVELOPMENT SERVICES

Ordinance ~~2018~~2024 ?? Exhibit ?

Amendments to the:
~~2018~~2024 International Residential Code

For the December 10, 2024, BC Meeting

Chapter 1 Scope and Administration. REVISE chapter by DELETING Section R102 Applicability and Part 2- Administration and Enforcement. (Deleted sections are administered by ~~2018~~2024 IBC, Chapter 1).

Section R101.1 Title. Enter [Name of Jurisdiction] as "Pima County, AZ".

Table R301.2~~(1)~~ Climatic and geographic design criteria. INSERT as follows:

Ground Snow Load	Less 4000 ft 0 psf (0 kgf/m²) 4 to 5000 ft 20 psf (97.65 kgf/m²) 5 to 7000 ft 40 psf (165.297 kgf/m²) 7 to 8000 ft 60 psf (292.945 kgf/m²) Over 8000 ft 80 psf (390.594 kgf/m²)
Topographic Effects	As Required
Wind Speed	~~115~~ ~~103~~ 105 mph (168.981 kph) 3 second gust
Seismic Design ~~shall~~	~~Category B (areas west of the Tohono O'odham Reservation~~ ~~Use Category C)~~ Category B
Weathering	Up to 4000 ft (1219.2 m)-Negligible Above 4000 ft (1219.2 m)-Moderate
Frost Line Depth	Up to 4000 ft (1219.2 m)-0 in (mm) Above 4000 ft (1219.2 m)-24 in (610 mm)
Termite	Moderate to Heavy
Winter Design Temperature	Refer to N1101.09.1
Flood Hazards	NFIP: February 15, 1983 FIRM: June 16, 20ll for all areas except for an area around Agua Caliente Wash September 28, 2012 for an area around Agua Caliente wash

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Section R302.1 Exterior Walls. REVISE section by DELETING text and tables and REPLACING 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 (610 mm) of a lot line may have roof eave projections not exceeding 4 inches (102 mm).
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 new section R302.1.1 to read:
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 (914 mm). This distance shall be measured perpendicular to the line used to determine the fire separation distance.
Exception:
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 ~~R313~~ R309 Automatic ~~Fire~~ Sprinkler Systems. DELETE section in its entirety.

Section ~~R309.5~~ R317.5Fire sprinklers. DELETE section in its entirety.

~~**Section R303.10 Required heating.** REVISE section by ADDING exception to read:~~
~~**Exception**: Spaces able to maintain 60ºF 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 R325 Light, Ventilation and Heating. REVISE section by DELETING the word heating and REPLACE with **Temperature Control**

Section ~~R303.5.1~~ R325.4.1 Intake openings. REVISE section by ADDING an exception to read:
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~~ R325.8 Required heating. REVISE Section by ADDING ~~an~~ Exceptions 1 and 2 to read:
Exceptions:
1. Interior spaces where the primary purpose is not associated with human comfort.

2. Interior spaces able to maintain 60ºF (15.6ºC) at a point 3 feet (9144 mm) above the floor and 2 feet (6096 mm) from exterior walls in all habitable rooms over a 48 hour period as demonstrated by Section N1105 Simulated Performance Alternative.

Add new section 325.9 to read:
Section R325.9 Cooling system. Dwelling units and sleeping units located in Climate Zones 0, 1, 2, 3, 4, 5A, and 5B, where the summer dry-bulb temperature is greater than 85°F (29.4°C), shall be provided with cooling systems capable of maintaining an indoor temperature at or below 80°F (26.7°C) in the occupied space. Where permanently installed fans are capable of generating 120 fpm (0.6 m/s) air speed inside the occupied space, the required cooling system shall be capable of maintaining indoor temperature at or below 85°F (29.4°C). The installation of one or more portable systems shall not be used to achieve compliance with this section.

Exception: Interior spaces where the primary purpose is not associated with human comfort.

Section R506.3.3 Vapor retarder. REVISE section by ADDING the following at the end of exception #4:
(May require a letter from an Arizona Licensed Registrant)

Section R606.6.4.2.1 Roof structures. REVISE section by DELETING section in its entirety and ADDING the following:
Masonry walls with ledgers shall be anchored to roof structures with metal strap purlin anchors of 800 lb minimum capacity (ASD) installed in accordance with the manufacture's installation requirements, and at intervals not to exceed 48" inches (1219 mm).

Top plates shall be secured to masonry or concrete walls with minimum 0.5" (13 mm) embedded anchor bolts spaced at intervals not to exceed 48" (1219 mm). Each joist or truss shall be connected to the plate at each bearing location with minimum H3 or equivalent load capacity and configuration to match connection. Gable end joists or trusses shall also be clipped connected at intervals not to exceed 48" (1219 mm).

Section R606.6.4.2.2 Floor diaphragms. REVISE section by DELETING section in its entirety and ADDING the following:
Masonry walls with ledgers shall be anchored to floor structures with metal strap purlin anchors of 800 lb minimum capacity (ASD) installed in accordance with the manufacture's installation requirements, and at intervals not to exceed 48" inches (1219 mm).

Section R802.11.1 Uplift resistance. REVISE section by DELETING section in its entirety and ADDING 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~~110 mph (177.028 kph) 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 ~~clipped~~ connected ~~with either~~ by an approved structural sheathing or approved ~~clips~~ connector to provide a continuous load path from the joist or truss through the ledger or top plate to the bottom wall plate. Where ~~clips~~ connectors are used, they shall ~~be minimum Simpson H2.5A (A34 at ledger), or equivalent~~ have a minimum uplift load capacity of 500 lbs, of configuration to match connection and spaced at intervals not to exceed 24" (610 mm). At openings, lower cripple studs do not require ~~clipping~~ connectors but king/trimmer studs require double ~~clips~~ connectors at bottom and upper cripples, require both full ~~clipping~~ connectors to header as well as header to king stud. All platform framing requires either strapping 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 ~~clipped~~ connected 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" (13 mm) embedded anchor bolts spaced at intervals not to exceed 48" (1219 mm). Each joist or truss shall be ~~clipped~~ connected to the plate at each bearing location with minimum ~~Simpson H2.5A or equivalent~~ uplift load capacity of 500 lbs and configuration to match connection. Gable end joists or trusses shall also be ~~clipped~~ connected at intervals not to exceed 48" (1219 mm).

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 installed in accordance with the manufacture's installation requirements, and at intervals not to exceed 48" (1219 mm). Nonbearing roof diaphragm edges shall have the outermost joist or truss likewise anchored to the wall through blocking.~~
Joists or trusses bearing on a wall ledger shall be secured to masonry or concrete walls with metal strap purlin anchors of 800 lb minimum capacity (ASD) installed in accordance with the manufacture's installation requirements, and at intervals not to exceed 48" inches (1219 mm). Nonbearing roof diaphragm edges shall likewise be anchored to the wall but with the metal strap purlin anchor connected to a one framing bay or 24" minimum length of blocking, whichever is greater.

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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" (1219 mm). Ledger designs shall connect to roof trusses with strapping listed for the purpose at intervals not to exceed 48" (1219 mm) on all diaphragm sides. If lateral design requires larger anchors or more conservative spacing, ~~these may be~~ the lateral design requirements shall be used in lieu of those called out in this section.

Section N1101.4 ~~(R102.1.1)~~ (R104.1.1) Above code programs. REVISE section by ADDING the following at the end of the paragraph:
Compliance with the Net-Zero Energy Standard shall be deemed to comply with this code.

ADD new section N1101.9.1 (R302.2) to read:
Section N1101.09.1 (R302.2) Exterior design conditions.

Pima County Arizona				
	CONDITION	**West of the easterly boundary of the principal Tohono O'odham Reservation**	**Under 4,000 feet elevation**	**4,000 feet elevation & above**
Winter	Design Dry Bulb Temp	36°F (2.22°C)	35°F (1.67°C)	4°F (-15.56°C)
Summer	Design Dry Bulb Temp	107°F (41.67°C)	105°F (40.56°C)	90°F (32.22°C)
	Design Wet Bulb Temp	69°F (20.56°C)	66°F (18.89°C)	61°F (16.11°C)
Climate zone		2B	2B	5B

Table ~~N1102.1.4 (R402.1.4) U-Factor alternative~~ N1102.1.2 (R402.1.2 Maximum Assembly U-Factors and Fenestration Requirements. REVISE the ~~section~~ table by ADDING 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)~~ N1102.5.1.2 (R402.5.1.2)Air leakage ~~T~~testing. REVISE section by DELETING the third sentence and REPLACING 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~~9~~ Condensate disposal. REVISE section by ADDING the following at the end of the paragraph:
Condensate disposal shall be allowed to terminate as follows:

1. At or below grade outside the building in an area capable of absorbing the condensate flow without surface drainage.
2. 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.

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ADD new Section M1413.2
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 P2602.1 General.** REVISE section by DELETING last sentence of paragraph 2.~~

ADD new section P2602.1.1 to read:
Section P2602.1.1 Individual metering in new dwelling units. The water supply to all dwelling units shall be individually metered. The metering may be private or utility installed.

Section P2603.5.1 Sewer depth. INSERT [number] as "12" (30.5 cm) in both locations, and below frost depth above 4000 feet (1219.2 m) elevation.

~~**Section P2801.6.1 Pan size and drain.** REVISE section by ADDING the following at the end of the second sentence: "A drain shall not be required for replacement water heaters in locations where no previously installed drain is available or when water heater is installed in a garage."~~

Table 2903.2 Maximum flow rates and consumption for pluming fixtures and fixture fittings.
REVISE the table as follows:

Plumbing Fixture or Fixture Fitting	Maximum Flow Rate or Quantity (b)
Lavatory faucet	1.5 gpm at 60 psi (419.7 kPa)
Showerheads[a]	2.0 gpm at 80 psi (551.6 kPa)
Sink faucet	1.8 gpm at 80 psi (551.6 kPa)
Water closet	1.28 gallons/flush

Section P2904.1.1 Required sprinkler locations. REVISE section by DELETING the first sentence and REPLACING with the following: "Sprinklers are not required within dwelling units. 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 section by DELETING paragraph and ADDING new text to read:
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 backwater valve.

Section P3008.2 Allowable installations. DELETE section in its entirety.

Section P3009 ~~Subsurface landscape Irrigation Systems~~ Greywater Soil Absorption System. Delete section in its entirety. Shall comply with Arizona Administrative Code Title 18, Chapter 9.

Section E3705.2 Correction Factor for ambient temperatures. REVISE section by ADDING the following:

E3705.2.1. The ambient temperature for application of Table 3705.2 [310.5 9B)(1)] for outdoor installations shall be not less than 45º C (113º F)

ADD new section E3703.8 to read:
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 new section ~~E3802.9~~ 3802.10 to read:

Section ~~E3802.9~~ 3802.10 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 **Appendix ~~Q~~ BB: Tiny Houses**.

Section ~~AQ~~ BB 103.1 Minimum ceiling heights. REVISE section by ADDING the following after the first sentence: "For rooms with sloped ceilings, at least 50 percent of the floor area of the room must have a ceiling height of at least 6 feet 8 inches (2032 mm) and no portion of the floor area of the room may have a ceiling height of less than 5 feet (1524 mm)."

Adopt Appendix ~~H~~ BF: Patio Covers.

Adopt Appendix ~~R~~ BI: Light Straw-Clay Construction.

Adopt Appendix ~~S~~ BJ: Strawbale Construction.

Adopt Appendix BK: Cobb Construction (Monolithic Adobe)

Adopt Appendix BM: 3D-Printed Building Construction

Adopt Appendix ~~T~~ NB Solar-Ready Provision – Detatched One and Two-Family Dwellings and Townhomes

Adopt Appendix NE Electric Vehicle Charging Infrastructure