

Ordinance 2018-30 2024-?? Exhibit A?

#### Amendments to the:

# 2018 2024 International Building Code

For January 21, 2025, BC Meeting

Section 101.1 Title. Insert:[name of jurisdiction] as "Pima County, AZ".

**Section 101.2 Scope.** REVISE section by ADDING a second sentence to the exception as follows: "Home occupations conforming to Pima County Code Section 18.09.030(A) and classified as occupancy group B, F, M, S or U may comply with the *International Residential Code* without needing to meet additional requirements for live/work units."

Pima County Code Section 18.09.030(A) is out of the zoning code, and it covers Home Occupations

**Section 101.4 Referenced codes.** REVISE section by DELETING the paragraph and REPLACING it with the following:

The other codes listed in Sections 101.4.1 through 101.4.11, as locally amended, and referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference.

Section 101.4.3 Plumbing. REVISE section by DELETING the last sentence.

**Section 101.4.4 Property maintenance.** REVISE section by DELETING all words following "...shall apply to existing structures and premises."

**Section 101.4.5 Fire prevention.** REVISE section by DELETING the paragraph and REPLACING it with the following:

The provisions of the *International Fire Code* shall apply whenever referenced in this code or as deemed necessary by the Building Official. Enforcement of the Fire Code shall, however, be relegated to the fire jurisdiction having authority or to the designated responding fire department.

ADD new section 101.4.8 to read:

**Section 101.4.8 Electrical.** The provisions of the *National Electrical Code* shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

ADD new section 101.4.9 to read:

**Section 101.4.9 Outdoor lighting.** The provisions of the City of Tucson/Pima County Outdoor Lighting Code shall apply to all new construction, additions and alterations to land uses, developments, buildings, structures and light fixtures.

ADD new section 101.4.10 to read:

**Section 101.4.10 Pool and Spa.** The provisions of the *International Swimming Pool and Spa Code* shall apply to all private residential swimming pools.

ADD new section 101.4.11 to read:



**Section 101.4.11 Wildland-urban interface.** The provisions of the *International Wildland-Urban Interface Code* shall apply to areas designated Rural Forest Village under the Pima County Comprehensive Plan and areas encircled thereby.

**103.1** Creation of enforcement agency. Insert: [name of jurisdiction] as "Pima County, AZ".

**Section 104.10 2.4 Modifications.** REVISE section by ADDING the following to the end of the paragraph:

Requests for modification shall be appealed to the Building Official as follows:

- 1. The applicant shall file a written appeal on the form provided by the Building Official and accompanied by a non-refundable fee (refer to the fee schedules adopted by the jurisdiction by separate ordinance).
- 2. Adequate information shall be provided by the applicant to fully describe the conditions in question.
- 3. The appeal will be considered by the Building Official within five (5) business days of receipt.
- 4. If an appeal is denied by the Building Official, the appellant must comply with the decision or may appeal to the Board of Appeals pursuant to Section 113 of this Code and Section 15.04.070 of the Pima County Code.

Section 104.2.4.1 – Waiting to see if RFCD wishes to amend the section or leave as is.

**Section 105.1 Required.** REVISE section by ADDING the following to the end of the paragraph: The provisions of this Code apply to regulated equipment and structures or improvements thereto in the unincorporated area of Pima County, east of the easterly boundary of the principal Tohono O'odham Reservation (not the San Xavier District). Buildings intended for assembly, commercial or industrial purposes shall comply with this Code, regardless of location unless exempted by State law.

Owners, builders, or authorized agents of buildings in otherwise exempted areas may, of their own volition, place themselves under the jurisdiction of this code by making application for and obtaining permits prior to construction.

**Section 105.1.1 Annual permit.** REVISE section by ADDING the following to the end of the paragraph:

The applicant for the registered plant facility annual permit shall be an architect registered in the State of Arizona and who shall be directly responsible for compliance with this code with respect to all work, which would otherwise require a permit. This person will need to shall be approved by the Building Official. All new applications need to be accompanied by a complete set of plans of outlining the affected buildings with a scope of work and operations section clearly outlined. Annual registered plant facility permits shall not be granted for buildings or facilities not currently operating under a valid certificate of occupancy.

Fees for annual permits shall expire on December 31st of each year and will need to be renewed and approved for registered plant facility status to be maintained. The permit will be suspended if the registered and approved applicant becomes no longer employed by the registered plant facility. If this occurs, the plant facility will need to shall notify the Building Official and call for immediate inspection on any ongoing work until such time that a replacement registrant is approved by the Building Official.



Annual permits may be revoked at any time by the Building Official when failing to comply with requirements.

A summary report of all work done performed under the registered plant facility registration shall be prepared by the registered architect and submitted annually to the Building Official. Work conducted under the registered plant facility annual permit may be reviewed and inspected by the Building Official while the work is in progress or on an annual basis.

The following work is not to be covered within the scope of the annual permit and shall require separate permitting:

- 1. Any work creating a different occupancy group for all or any portion of a building.
- 2. Any work creating a different building type for all or any portion of a building.
- 3. Any work which adds, alters, removes or penetrates required firewalls or barriers, exit courts, exit passageways or horizontal exits.
- 4. Any work which modifies load-bearing structures components of the structure

**Section 105.2 Work exempt from permit (Building).** REVISE item number 1 by DELETING "120 square feet (11m<sup>2</sup>)" and REPLACING it with "200 square feet (18.58m<sup>2</sup>)."

REVISE item number 5 by ADDING a second sentence to read: "Water tanks no greater than 1000 gallons, directly supported on grade, regardless of aspect ratio."

REVISE item number 6 by DELETING the fragment "Sidewalks and driveways..." and REPLACING it with "Decks and non-structural flatwork..."

REVISE item number 9 by DELETING the phrase fragment "24 inches (610 mm)" and REPLACING it with "18 inches". Changed to comply with state.

REVISE the Building section by ADDING new items number 14 to 19 as follows:

- 14. Any work accomplished under the auspices of and owned and controlled by the United States of America or the State of Arizona.
- 15. Amusement devices or structures located on a site for no more than 30 calendar days.
- 16. Devices used in manufacturing, processing, or fabricating normally used considered as involved in industrial plants.
- 17. Tents or membrane structures provided the area does not exceed 400 square feet (37.16 m<sup>2</sup>) or 700 square feet (65.03 m<sup>2</sup>) if a minimum of two sides are open.
- 18. Re-roofing Replacement of roof covering for legally of existing buildings with similar materials regardless of value. Historic buildings must complete an historic review and approval prior to roofing installation.
- 19. Detached ramadas/gazebos not greater than 200 square feet (18.58 m<sup>2</sup>) and not containing any electrical, mechanical, plumbing or stairs.
- 20. Residential window and door replacements in buildings legally permitted. Existing safety glazed windows shall be replaced with safety glazed windows. Existing emergency escape and rescue windows shall be same size or larger as window being replaced. Historic buildings must complete an historic review and approval prior to window installation

**Section 105.2 Work exempt from permit (Electrical).** REVISE the Electrical section by ADDING a new fourth paragraph section to read:



#### Other items:

- 1. Power for amusement devices and carnival rides in place on a site for less than 30 calendar days and not connected to a utility company's facilities.
- 2. Repair or replacement of fixed motors and transformers of the same type and rating in the same location.
- 3. Repair or replacement of current-carrying parts of any switch, contactor, control device, or overcurrent device of the required capacity in the same location.
- 4. Electrical wiring, devices, appliances, apparatus or equipment operating at less than 25 volts and not capable of supplying more than 50 volt-amps of energy.
- 5. Devices used in manufacturing, processing or fabricating.

Section 105.2 Work exempt from permit (Mechanical). REVISE the Mechanical section by ADDING new item number 8 as follows:

8. Replacement of evaporative coolers with like coolers.

**Section 105.2 Work exempt from permit (Agricultural).** REVISE section by ADDING new paragraphs following the Plumbing section as follows:

## **Agricultural Buildings:**

Agricultural buildings are exempt from Building Codes permitting requirements per A.R.S. § 11-865(A)(1). This section does not, however, exempt Agricultural buildings from permitting requirements for site outdoor lighting per ARS § 11-251(35).

Agricultural buildings containing separated uses, as defined by the Building Code, where the construction incidental to agriculture only occupies a portion of a mixed-use building, shall be provided with an exemption only for those construction portions incidental to agriculture. Those construction portions not incidental to agriculture shall not only require Building Codes permitting, but may require a rated occupancy separation from the exempt portion per the Building Code as follows:

Agricultural buildings are structures incidental to "Farming, dairy, agriculture, viticulture, horticulture, stock or poultry raising" [A.R.S. § 11-865(A)(1)]. This includes structures for the storage of equipment and materials incidental to the operation of agriculture such as tractors, combine harvesters and feed for the exclusive use of dairy or production animals. The definition, however, does not include any exemption for general animal care and housing facilities such as kennels, aviaries and riding stables. This means that buildings of an agricultural character (i.e.: pole barns or silos), are not eligible for agricultural buildings status if their use does not qualify for the exemption. The test for whether a building is an agricultural building depends on the use to which the building is put intended. The question is not determined by the physical similarity of the use of the building to uses done by farmers in other situations. The test is whether the particular building, or portion of a building, is used as part of, or incidental to, an agricultural function or whether it is used as part of an independent activity. Furthermore, to qualify for exempt status, agricultural buildings need to be located on agricultural real property as defined by A.R.S. §42-12151. In addition, agricultural real property classification will require that "the primary use of the property is as agricultural land..." along with the other caveats listed in A.R.S. §42-12152.

Section 105.3 Application for Permit. REVISE section by DELETING items 5 and 6.



**Section 105.3.2 Time limitation of application.** REVISE section by DELETING the phrase fragments "180 days" and "90 days" and respectively REPLACING these with "365 days" and "180 days".

Section 105.5 Expiration. REVISE section by DELETING all occurrences of the phrase fragment "180 days" and REPLACING them with "365 days"; ADDING a sentence after the first sentence to read: "Such time periods shall be evidenced by a recorded inspection approval demonstrating progress"; DELETING the last sentence and REPLACING with the following: The extension shall be requested in writing, prior to permit expiration and with justifiable cause demonstrated. Permit reinstatements and associated fees shall conform to the procedure on file with the Building Official.

**Section 107.3.2 Previous approvals.** REVISE section by DELETING the phrase fragment "180 days" and REPLACING it with "365 days" and ADDING new text at the end of the last sentence to read: "...as evidenced by a recorded inspection demonstrating progress."

Section 109.3 Building permit valuations. DELETE this section in its entirety.

ADD new section 109.3 to read:

Section 109.3 Model plans. As defined by the Building Official, Wwhen two or more buildings, structures, or systems of regulated equipment are built without substantial modifications, as defined by the Building Official, an applicant may apply for a model plan permit. This permit shall be charged plan review fees with additional fees for each exterior design elevation. The number and type of accepted revisions/options per model plan shall be as determined by the Building Official.

A model plan approved by a jurisdiction having an Intergovernmental Agreement with Pima County may be accepted for approval by the Building Official and assessed an administrative fee of twenty-five percent (25%) of the building plan review fee. Matches our fee ordinance.

**Section 109.4 Work commencing before permit issuance.** REVISE section by ADDING a new sentence at the end of the paragraph to read:

The additional fee shall be at least equal to 25% of the required building permit fee. Matches our fee ordinance. The 2018 Amendments stated, "The additional fee shall be at least equal to the required building permit fee."

**111.2** Certificate issued. REVISE section by ADDING a new sentence at the end of the section to read: Exception: Approved final inspections for *International Residential Code* and group "U" occupancy structures shall constitute the certificate of occupancy. ITD has not set up our permitting system to issue C of O for IRC structures.

#### ADD new section 111.3.1 to read:

111.3.1 Occupancy bonds required. Written assurance of compliance with this code, with the condition of temporary occupancy granted by the Building Official, and with the temporary occupancy time limit shall consist of a cash deposit or a performance bond in the penal sum of one thousand dollars (\$1,000.00) or the amount equal to one percent (1%) of the value, whichever is greater but not to exceed ten thousand dollars (\$10,000.00), payable to the jurisdiction and executed by a surety company qualified to execute surety bonds in the State. Each bond shall be joint and several and conditioned that the principal in the bond will faithfully conform to this code for which the temporary occupancy authorization is to be issued. The principal and surety named in such bond shall be jointly and severally bound unto the jurisdiction,



and to any and every other person aggrieved or damaged by any breach of the condition of the bond. The bond shall not be void upon any recovery or recoveries totaling less than the whole penalty but may be used and recovered upon from time to time until the whole penalty is exhausted. The term of the obligation of such bond shall be for a period that the authorization is outstanding and may be held for thirty days thereafter when required by the Building Official, except that if at the expiration of said thirty days, the jurisdiction has reason to believe that there is an action or claim impending or that there is a legal action pending which relates to the bond, the jurisdiction shall retain the bond until final disposition of such matter or matters.

**Exception**: Owner built/owner occupied single family dwellings.

### ADD new section 112.1.1 to read:

**112.1.1 Service conductors.** All service conductors, power and communication, shall be installed underground for all new construction. The requirement for underground conductors may be waived by the Building Official where:

- 1. Existing buildings on the block are served with overhead conductors or where a lot to be constructed upon is one of three or fewer abutting vacant lots making up less than 40 percent of the total acreage of the block (not including street or right-of-way) or where a vacant area is less than 60,000 square feet (5574.18 square meters).
- 2. The installation, when compared to the use of overhead conductors, would create a hazard or not be feasible. A feasibility study will be required at the time the request for waiver is made.

### ADD new section 112.2.1 to read:

112.2.1 Temporary service bonds required. Written assurance of compliance with this code and temporary connection time limit shall consist of a cash deposit or a performance bond in the penal sum of one thousand dollars (\$1,000.00) or the amount equal to one percent (1%) of the value, whichever is greater but not to exceed ten thousand dollars (\$10,000.00), payable to the jurisdiction and executed by a surety company qualified to execute surety bonds in the State. Each bond shall be joint and several and conditioned that the principal in the bond will faithfully conform to this code for which the temporary connection authorization is to be issued. The principal and surety named in such bond shall be jointly and severally bound unto the jurisdiction, and to any and every other person aggrieved or damaged by any breach of the condition of the bond. The bond shall not be void upon any recovery or recoveries totaling less than the whole penalty but may be used and recovered upon from time to time until the whole penalty is exhausted. The term of the obligation of such bond shall be for a period that the authorization is outstanding and may be held for thirty days thereafter when required by the Building Official, except that if at the expiration of said thirty days, the jurisdiction has reason to believe that there is an action or claim impending or that there is a legal action pending which relates to the bond, the jurisdiction shall retain the bond until final disposition of such matter or matters.

Exception: Owner built/owner occupied single family dwellings.

## ADD new section 112.2.2 to read:

**112.2.2 Construction power.** Construction power is a privilege granted under the jurisdiction for convenience during construction. Construction power may be from either temporary power poles or through the permanent power panel. Each 120 Volt circuit used for construction power shall be GFCI protected. Construction power may be revoked at any time upon cause by the Building Official.

**Section 202 Definitions: Swimming Pool.** REVISE section by DELETING the fragment "24 inches (610 mm)" and REPLACING it with "18 inches" (457 mm).



Section 717.6.1 Through penetrations. REVISE Exception 1. by ADDING "or the floor/ceiling assembly" after the word "wall" and before the word "and."

Section 717.6.2.1.2 Static systems. REVISE section by ADDING new Exceptions 4 and 5.

- 4. Static *ceiling radiation dampers* shall be permitted to be installed in *Dwelling Units* with smoke alarms installed in accordance with the Building Code and activation of any smoke alarm within the *Dwelling Unit* shall shut down the system.
- 5. Static *ceiling radiation dampers* shall be permitted to be installed in *Dwelling Units* having a fire alarm system which has smoke detectors installed within the *Dwelling Unit* in accordance with the Building Code requirements for smoke alarms. Activation of any smoke detector within the *Dwelling Unit* shall shut down the system in the *Dwelling Unit*.

**Section 1512 Reroofing.** REVISE section by DELETING Roof Replacement and REPLACE with Roof Covering Replacement.

**Section 1609.1.1 Determination of wind loads.** REVISE section by ADDING the following after the last paragraph:

Per the Basic Wind Speed Figures, use the following:

- Risk Category I 100 mph (160.137 kph).
- Risk Category II 105 mph (168.981 kph).
- Risk Category III 110 mph (177.028 kph).
- Risk Category IV 115 mph (185.075kph).

ADD new section 1609.56.1.1 to read:

**Section 1609.56.1.1 Uplift resistance to minimize microburst effects.** In addition to requirements in ASCE 7, minimum uplift resistance 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 values from the wind speeds listed in amended Section 1609.1.1plus 5 mph (8.04672 kph) of 110 mph within Table 2308.7.5 for all components and cladding material 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 elipped connected with either by an approved structural sheathing or approved elips connector to provide a continuous load path from the joist or truss through the ledger or top plate to the bottom wall plate. Where elips 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 elipping connectors but king/trimmer studs require double elips connectors at bottom, and upper cripples require both full



elipping 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 elipped 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) anchor bolts embedded minimum 7" (180 mm) and spaced at intervals not to exceed 48" (1219mm). Each joist or truss shall be elipped connected to the plate at each bearing location with minimum H2.5A a metal connector having a minimum or equivalent uplift load capacity of 500 lbs and of configuration to match connection. Gable end joists or truss connectors shall also be elipped 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.

# 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.

#### ADD new Section 1610.1.1 to read:

**Section 1610.1.1 Presumptive active pressure:** For typical unsaturated soils in Pima County, a presumptive active lateral pressure of 35 psf (170.88 kgf/m²) per foot (meter) of depth may be used without a geotechnical report for walls not exceeding 7 (2.133 m) feet in height, from top of footing. Level backfill is assumed with this active pressure. Surcharges shall be applied as necessary.



**Section 1612.3 Establishment of flood hazard areas.** Insert: [name of jurisdiction] as "The Flood Insurance Study for the Unincorporated Areas of Pima County, Arizona"; and insert: [date of issuance] as "February 15, 1983." Waiting to hear from RFCD if this amendment needs to be revised or updated.

**Section 1705.4 Masonry construction.** REVISE section by ADDING a new exception 4 as follows: **Exception 4:** Nonessential facilities designed in accordance with Section 2107 with allowable masonry stresses reduced by one-half and the maximum value of fm limited to 1500 psi (10342136 pascals) for concrete or clay masonry. The following limitations shall apply to this exception:

- 1. The unsupported height (or length)-to-thickness ratio of a building wall shall not exceed 20.
- 2. The soil retaining height for a retaining wall shall not exceed 4'-0" (1219 mm) measured from the top of footing for an 8-inch-thick wall or 6'-0" (1828 mm) for a 12-inch (305 mm)-thick wall.
- 3. The height-to-thickness ratio shall not exceed 10 for a cantilevered masonry fence or combination masonry fence and retaining wall as measured from the top of footing to the top of wall. If a combination retaining/fence wall consists of more than one wall thickness, the smallest thickness shall be used in determining the height-to-thickness ratio.

Any portion or portions of a structure in which the design masonry stresses exceed one-half the allowable masonry stresses, shall require Special Inspection for that portion or portions of the structure.

ADD NEW section 1806.2.1 to read:

## **Section 1806.2.1 Presumptive coefficient of friction:**

For typical unsaturated soils in Pima County, a presumptive coefficient of friction of 0.30 for lateral sliding resistance may be used without a geotechnical report. Friction resistance may be used in conjunction with passive pressure to resist sliding forces.

Section 2308.7.5 2308.11.4 Wind uplift. REVISE section by DELETING first sentence and REPLACING with the following: Uplift resistance shall comply with section 1609.56.1.1.

**Section 3109 Swimming pools, spas, and hot tubs.** DELETE section and subsections and REPLACE with: The design and construction of Public and Semipublic pools, spas, and hot tubs shall comply with Arizona Administrative Code, Title 18, Chapter 5, Article 2. Public and Semipublic Swimming Pools and Spas as well as A.R.S. §36-1681 is hereby adopted by reference and subject to the requirements of this code.

Adopt Appendix A: Employee qualifications and Appendix I: Patio covers.

Add NEW section A101.5 to read: **Section A101.5.** As determined by the Appointing Authority.