

Board of Appeals Regular Meeting

August 15, 2024 | 7:00 a.m.

Public Works and Development Services Building
South Atrium Conference Room
215 E. Buffalo St., Chandler, AZ



Board Members

Michael McElhany
Heather Mattisson
David Love
Michael Quinn
Jeff Cullumber

Pursuant to Resolution No. 4464 of the City of Chandler and to A.R.S. § 38-431.02, notice is hereby given to the members of the Board of Appeals and to the general public that the Board of Appeals will hold a REGULAR MEETING open to the public on Thursday, August 15, 2024, at 7:00 a.m., at the Public Works and Development Services Building, South Atrium Conference Room, 215 E. Buffalo Street, Chandler, AZ. One or more Board Members may be attending by telephone.

Persons with disabilities may request a reasonable modification or communication aids and services by contacting the City Clerk's office at (480) 782-2181(711 via AZRS). Please make requests in advance as it affords the City time to accommodate the request.

Agendas are available in the Office of the City Clerk, 175 S. Arizona Avenue.

Board of Appeals

Regular Meeting Agenda - August 15, 2024

Call to Order/Roll Call

Unscheduled Public Appearances

Members of the audience may address any item not on the agenda. State Statute prohibits the Board or Commission from discussing an item that is not on the agenda, but the Board or Commission does listen to your concerns and has staff follow up on any questions you raise.

Consent Agenda

Items listed on the Consent Agenda may be enacted by one motion and one vote. If a discussion is required by members of the Board or Commission, the item will be removed from the Consent Agenda for discussion and determination will be made if the item will be considered separately.

1. **Approval of Minutes August 1, 2024, Board of Appeals Meeting Minutes**
Move Board of Appeals approve the August 1, 2024 Regular meeting minutes.

Discussion

2. **Staff Presentation of Proposed Amendments and Significant Changes to the 2024 International Building Code and the 2024 International Fire Code**
3. **International Existing Building Code and International Swimming Pool and Spa Code Amendments and Significant Changes (No Presentation)**

Member Comments/Announcements

Calendar

Adjourn



Board of Appeals City Clerk's Office Memo No.

Date: 08/15/2024
To: Board of Appeals
Thru:
From: Jessica Sweet, Management Assistant
Subject: [Approval of Minutes August 1, 2024, Board of Appeals Meeting Minutes](#)

Proposed Motion:

Move Board of Appeals approve the August 1, 2024 Regular meeting minutes.

Attachments

Minutes of the regular Meeting August 15, 2024

MINUTES OF THE BOARD OF APPEALS OF THE CITY OF CHANDLER, ARIZONA, held on Thursday, August 01, 2024, at 7:00 a.m., in the Development Services Building – South Atrium Conference Room, 215 E. Buffalo Street, Chandler, Arizona.

Members Present

Jeff Cullumber, Chair
David Love Vice Chair
Heather Mattisson, Board Member
(Virtual)
Michael Quinn, Board Member
Michael McElhany, Board Member

Staff Present

Shicheng Tao, Building Official
LeeRay Hanly, Building Plan Review
Administrator
Bob Graffius, Building Inspection
Administrator
Corey Bush, Senior Building Plans Examiner
Catherine Flores, Senior Management
Analyst

Members Absent

Staff Absent

Aaron Huckstep, Fire Marshal

1. CALL TO ORDER / ROLL CALL

Board Chair Jeff Cullumber, called the meeting to order at 7:02 am. Roll call was taken by Sr. Management Analyst Catherine Flores. Quorum was established.

2. UNSCHEDULED PUBLIC APPEARANCES - None

(Members of the audience may address any item not on the agenda. State Statute prohibits the Board of Appeals from discussing an item not on the agenda, but the Board of Appeals does listen to your concerns and has staff to follow up on any questions you raise.)

CONSENT AGENDA

3. APPROVAL OF MINUTES

a. Minutes of May 23, 2024

Motion made by Board Member Michael McElhany to approve the Board of Appeals Meeting Minutes for May 23, 2024, Motion seconded by Board Member Michael Quinn. Approved (5-0).

4. BOARD OF APPEALS BUSINESS MEETING

Corey Bush, Senior Building Plans Examiner, and LeeRay Hanly, Building Plan Review Administrator, presented the Proposed Amendments and Significant Changes to the Board of Appeals.

- Significant Changes to the 2024 IMC/IPC/IFGC
 - Proposed Adoption Dates 07/01/2025
 - City Council Hearing Dates, 11/04/2024, 11/07/24 & 12/12/2024
 - Board of Appeals Review 09/12/24.

- **2024 International Plumbing Code Changes**
 - Administrative Proposals (New) Chapter 1 – Scope and Administration.
 - Proposed amendment to delete the Chapter 1 Scope and Administration in its entirety.
 - Proposed Amendments is to comply with the provisions along with the amendments as described in the Chapter 1 Scope and Administration of the 2024 International Building Code.
- Subsection 410.4 Substitution. Proposed Amendments to the IPC code Body.
 - Strike the second sentence, instead of the entire paragraph in the subsection, which was corrected by the Board of Appeals, and replace it with the following: In all occupancies where drinking fountains are required, water dispensers connected to the potable water system shall be permitted to be substituted for the first required fountain and any water dispenser shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains. The correction will be made in the IPC PowerPoints accordingly.
- Subsection 1003.3.7 Gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems.
 - Strike the first sentence in this subsection and replace it with a grease interceptor design chart, which was suggested by the Board of Appeals. The City staff will be working on it and replacing it with a grease interceptor design chart accordingly.
- Section 306.2.4 Tracer Wire
 - Section 306, Trenching, Excavation and Backfill
 - Tracer wire for plastic ser piping, an insulated copper tracer wire or other approved conductor shall be installed adjacent to and over the full length of the piping.
 - Access shall be provided to the tracer wire, or the tracer wire shall terminate at the cleanout between the building drain and building sewer.
 - The tracer wire size shall be not less than 14 American Wire Gauge and the insulation type shall be listed for direct burial.
- Section 312.4 Vacuum Test
 - Section 213 Tests and Inspections
 - In addition to drainage and vent water and air test, the vacuum test has been added.
 - The portion of the drainage and vent system under test shall be evacuated from air by a vacuum-type pump to achieve a uniform gauge pressure of negative 5 pounds per square inch for 15 minutes.
- Section 407.2 Bathtub Overflows
 - Section 407- Bathtubs
 - Bathtubs shall be equipped with a waste outlet that is not less than 1 ½ inches in diameter. The waste outlet shall be equipped with a

watertight stopper. Where an overflow is installed, the overflow shall be not less than 1 ½ inches in diameter.

- This language is to coordinate with the IRC and the manufacturers product standards.
- Section 419.6 Soap Dispensers
 - Section 419 Lavatories
 - Section 419.6 is a new section.
 - Soap dispensers shall be provided for public lavatories.
- Section 504.7 Required Pan (Water Heaters)
 - Section 504 – Safety Devices (Water Heaters)
 - A plastic pan installed beneath a gas-fired water heater shall be constructed of material having a flame spread index of 25 or less and a smoked developed index of 450 or less.
 - Previous code cycle did not allow use of a plastic pan beneath a gas fired water heater.
 - Water heaters installed in pans shall comply with section 314.2.3.2. This section requires that any such appliance be elevated above the flood rim level of the pan below so that the appliance is not directly exposed to wet conditions.
- **2024 International Mechanical Code Changes**
- City Amendments (Mechanical) Administrative proposals
 - (New) Chapter 1 Scope and Administration
 - Proposed amendment is to delete Chapter 1 Scope and Administration in its entirety.
 - Proposed amendment is to comply with the provisions along with the amendments as described in the Chapter 1 Scope and Administration of the 2024 Internal Building Code.
 - There are no proposed amendments to the IMC code body.
- Section 306.5 Equipment or Appliances on Roofs or Elevated Structures
 - Section 306 Access and Service Space
 - Permanent ladders installed to provide the required access shall comply with the following design criteria.
 - The side railing shall extend above the parapet or roof edge or landing platform not less than 42 inches. Changes from 30 inches.
 - Ladders shall have rung spacing not less than 10 inches and not to exceed 14 inches on center. 10" minimum dimension.
 - Ladders shall have a toe spacing not less than 7 inches and not more than 12 inches deep. Change from not less than 6 inches.
 - There shall be not less than 16 inches between rails. Change from not less than 18 inches.
 - (NEW) Top landing required. The ladder shall be provided with a clear and unobstructed landing on the exit side of the roof hatch, having a

minimum space of 30 inches deep and being the same width as the hatch.

- Chapter 5 Exhaust Systems
 - Section 501, General
 - Section 501.6 Common ducts
 - The discharge from exhaust fans serving separate dwellings or sleeping units shall not be connected to a common duct or shaft, except where the common duct or shaft is maintained at a negative pressure.
 - Exhaust ducts that are under positive pressure cannot be joined because the airflow from one fan will leak out through the fan that is not running. Backdraft dampers in common exhaust fans have a significant leakage rate. This would cause odors, smoke, pathogens, chemical irritants, etc. to be carried from one unit to another.
- Section 1002.4 Water Heater Pan Required
 - Section 1002 Water Heaters
 - New Section: Where a storage-type water heater or a hot water storage tank is installed in a location where water leakage from the tank will cause damage, the tank shall be installed in a pan constructed of one of the following:
 - Galvanized steel or aluminum of not less than 0.0236 inch in thickness.
 - Plastic of not less than 0.036 inch with flame spread of not more than 25 and smoke-developed index of not more than 450.
 - Other approved materials.
- **2024 International Fuel Gas Code Changes**
 - City Amendments (Fuel Gas)
 - New Chapter 1 Scope and Administration
 - Proposed amendment to delete Chapter 1 Scope and Administration in its entirety.
 - The proposed amendment is to comply with the provisions along with the amendments as described in Chapter 1 Scope and Administration of the 2024 International Building Code.
 - There are no proposed amendments to the IFGC code body.
- **Significant Changes to the 2023 NEC**
 - Proposed Adoption Date 07/1/2025
 - City Council Hearing Dates 11/04/2024, 11/07/2024, & 12/12/2024
 - Board of Appeals Review 09/12/2024.
- There are over 400 changes from 2020 to the 2023 NEC. The vast majority are related to format and are not new code provisions. Most changes are either moving some existing language into additional code sections or “clarification” in language that don’t really change how the code is applied.

- The NFPA has moved definitions from each code section to a new article 100. This appears related to how the ICC has been modifying their codes for overall simplicity in the future.
- This change alone is the most significant as it has allowed the deletion of many “exceptions” and eliminated some issues by trying to define the same thing multiple times throughout the code book.
- Unfortunately, it did not stop all the code committees from adding language to specific sections that were already addressed, but it’s a good start.
- There is a new provision in the code to address 10 A circuits, but the minimum wire gauge for wiring buildings has not changed, only the overcurrent protection.
- There are also clarifications added to wire size for connector cables from equipment to outlets for the 10 A circuits, but that information was previously covered by the listing for equipment.
- The NEC has also made changes to provide sections for installations up to 1000 volts with separate sections for over 1000 volts.
- This was previously not addressed in the NEC as there is no real difference in how you apply the code sections. Perhaps the NFPA is considering making more significant changes in the future.
- Overall, the code language changes are redundant even with some minor changes to parts of the code body that are related to very specific applications that do not affect how the NEC would be used.
- There are some changes that we don’t agree with (like adding to the code that flywheel energy storage is not allowed in residential applications) but because our goal in Chandler is to only make revisions that would specifically affect our City detrimentally, we are not proposing any code modifications other than a couple that affect residential applications.
- The proposed changes are to remove the requirement for GFCI protection for HVAC units and for “not readily accessible” outlets in residential garages.
- Excess heat is a very real problem in our area and the occurrence of dangerous ground faults to HVAC equipment is minor. Similarly, by allowing the overhead outlet that controls garage doors to be removed from the GFCI requirement we can eliminate the occurrence of a garage door failing to open when another outlet on the GFCI circuit is tripped.
- We do propose NOT making a change to the NEC for surge protection on dwelling units. With the proliferation of IOT appliances protecting them is becoming more important (we have been protecting SFR for 3 years now).
- City Amendments – Proposed Amendments to the 2023 National Electrical Code (NFPA 70)
 - Article 110 General Requirements for Electrical Installations
- Subsection 110.3 Examination, Identification, Installation, Use and Listing (Produce Certification) of Equipment
 - Listing. Product testing, evaluation, and listing (product certification) shall be performed by recognized qualified electrical testing

laboratories and shall be in accordance with applicable product standards recognized as achieving equivalent and effective safety for equipment installed to comply with code.

- Proposed Amendment is to add language in the body of the code to simplify the amendment to read as follows:
- Listing. Product testing, evaluation, and listing (product certification) shall be performed by recognized qualified electrical testing laboratories, or other agencies approved by the City of Chandler building official and shall be in accordance with applicable product standards recognized as achieving equivalent and effective safety for equipment installed to comply with this Code.
- Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts ds, Nominal
- Subsection 210.8 Ground Fault Circuit Interrupter Protection for Personnel
 - Dwelling Units. All 125 volt through 250-volt receptables installed in the following locations and supplied by single phase branch circuits rated 150 volts or less to ground shall have ground fault circuit interrupter protection for personnel.
 - Garage and accessory buildings that have a floor located at or below grade level not intended for habitable rooms and limited storage areas, work areas, and areas of similar use.
 - Add the following language at the end of 210.8(A)(2)
 - Exception: Receptables that are not readily accessible.
 - NEW Subsection 210.8 Ground Fault Circuit Interrupter Protection for Personnel
 - Outdoor Outlets. For dwellings, all outdoor outlets, other than those covered in 210.8(A), Exception No.1, including outlets installed in the following locations, and supplied by single phase branch circuits rates 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection.
 - Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, 2026.
 - Proposed amendments are to strike out the 2nd sentence from the Exception No. 2 to read as follows:
 - Exception No. 2: GFCI protection shall not be required for listed HVAC equipment.
 - Article 230 Services
 - (New) Subsection 230.67 Surge Protection.
 - The city has no proposed amendments to this subsection. When the new code is adopted then it will go into the City Code as written.
 - Article 406 Receptacles, Cord Connectors, Attachment Plugs (Caps)
 - (NEW) Subsection 406.12 Tamper Resistant Receptables.
 - The proposed amendment is to delete item 10 for areas of agricultural buildings.

ACTION AGENDA

a. None

5. BRIEFING ITEMS

Corey Bush, Senior Building Plans Examiner and LeeRay Hanly, Building Plan Review Administrator spoke on the Code Amendment and Significant Changes Presentation. It was discussed that the board members will be briefed by staff pertaining to the building code editions in the upcoming meetings.

6. MEMBER COMMENTS/ANNOUNCEMENTS

7. CALENDAR

a. Next meeting is scheduled Thursday, August 15, 2024, @ 7:00 am.

8. ADJOURN

Vice Chair David Love motioned for the meeting to adjourn. Motion seconded by Board Member Michael McElhany.

The meeting was adjourned at 7:55 am.

Jeff Cullumber, Chairman

Shicheng Tao, Secretary