

2021 Construction Codes Adoption Highlights

International Building Code	Local Amendments:	Notes:
	Subsection 103.1 "Creation of enforcement agency" is hereby amended by inserting Development Services Department as Name of Department.	Specifies the enforcement agency.
	Subsection 105.2 "Work exempt from permit" "Building" is hereby amended by deleting item 1 in its entirety and replacing it with a new item 1 as follows: 1. One-story detached accessory structures, provided that the floor area does not exceed 120 square feet (11.15 m ²) and the height measured at the highest point does not exceed 7 feet (2134 mm) with option up to a maximum of 9 feet (2743 mm) with setbacks at a ratio of 2 additional feet of setback for each additional 1 foot of building height.	Aligns with City Zoning Ordinances.
	Subsection 105.3.1 "Action on application" is hereby amended by adding the following provisions to the end thereof: A permit may be issued solely after applicant has satisfied all applicable City of Chandler ordinances and requirements.	Make sure the construction permits are not issued until all divisions examine the construction documents and ensure they meet applicable City ordinances.
	Subsection 111.1 "Change of Occupancy", Subsection 111.2 "Certificate Issued" and Subsection 111.3 "Temporary Occupancy" are hereby amended by replacing "building official" with "City of Chandler Development Services Department director or director's designee".	Ensures occupancy certificates are not issued until all City codes addressed.
	Subsection 310.5 "Residential Group R-4" is hereby amended by replacing 16 persons with 10 persons.	Coordinates and aligns with the State of Arizona licensing requirements.
	Model Code Changes:	
	Subsection 602.4 Adds three new Type IV construction types to recognize mass timber construction.	Provides more options for construction types
	Subsection 903.3.1.2 Reduces the allowable height for a Group R occupancy using 13R fire sprinkler system from 60 feet above grade plane to 30 feet above or below the lowest level of fire department vehicle access.	Requires NFPA 13 fire sprinkler system for stories over 30 feet.
	Subsection 907.5.2.1.3 Requires 520-Hz fire alarm complying with NFPA 72 in all sleeping rooms of R-1 and R-2 occupancies.	Requires more efficient fire alarm in hotels and apartment complexes.
	Subsection 1008.2.1 Increases the minimum illumination level for both exit and exit access stairways from 1-footcandle to 10-footcandle when in use.	Increases illumination for safe exit travel in emergencies.

	Subsection 1010.2.9 Requires panic hardware on electrical room doors in electrical rooms with equipment over 800 amps unless the door is more than 25 feet away from the equipment.	Currently 1200 amps.
	Subsection 1102.1 and ICC A117.1 Subsection 304.3.1.1 Requires the turning space to be a circular space with 67 inches minimum diameter in new buildings and facilities.	Currently 60 inches minimum.
	Subsection 1105.1.1 Provides automatic doors for A-1, A-2, A-3 or A-4 occupancies with an occupant load of greater than 300 and B, M or R-1 occupancies greater than 500.	Automatic doors are required for buildings with large occupant loads.
	Subsection 1705.18 Requires special inspection in Group R fire areas exceeding an occupant load of 250.	Special inspection is required for residential buildings with large occupant loads to ensure safety features are installed correctly.
National Electrical Code	Local Amendments:	Notes:
	Subsection 210.8 (A) (2) "Dwelling Units" is hereby amended by adding an exception as follows: Exception: Receptacles that are not readily accessible.	Does not require a GFCI plug receptacle in the ceiling for a garage door opener.
	Subsection 210.8 (F) "Outdoor Outlets" is amended by deleting its entirety.	The variable speed motors would likely trip the GFCI breakers and cause HVAC equipment shut-downs.
	Subsection 230.67 "Surge Protection" is amended by deleting its entirety.	There was no identified risk to people for this code change, it only protects equipment.
	Subsection 406.12 "Tamper-Resistant Receptacles" is amended by deleting its use in dwelling units and assisted living facilities.	Extra force is usually needed to insert a plug into the Tamper-Resistant Receptacles. It is not practicable for elders or disabled people to use.

	Model Code Changes:	
	Subsection 210.8(A) Requires GFCI protection for receptacles up to 250-volt in dwelling units.	Currently up to 125-volt. Provides extra safety.
	Subsection 210.8(B) Requires GFCI protection for all 125–250-volt receptacles and all receptacles supplied by 3-phase 150 volts or less, 100 amps or less for other than dwelling units.	Requires more locations with GFCI protection. Provides extra safety.
International Plumbing Code	Local Amendments:	Notes:
	Subsection 103.1 "Creation of enforcement agency" is hereby amended by inserting Development Services Department as Name of Department.	Specifies the enforcement agency.
	Model Code Changes:	
	Subsection 403.2 Allows multiple user non-separated sex toilet facilities.	Will see more and more multiple user non-separated sex toilet facilities. Results in more efficient use of space.
	Subsection 403.3.3 Allows the location of toilet facilities in a Group S occupancy to exceed the location and distance limitations.	Cost savings to Group S occupancies that have very few people in them.
International Mechanical Code	Local Amendments:	Notes:
	Subsection 103.1 "Creation of enforcement agency" is hereby amended by inserting Development Services Department as Name of Department.	Specifies the enforcement agency.
	Model Code Changes:	
	Subsection 307.2.1.1 Condensate discharge cannot connect to any drain, waste or vent pipe. Condensate discharge cannot discharge into a plumbing fixture other than a floor sink, floor drain, trench drain, mop sink, hub drain, standpipe, utility sink or laundry sink.	The code is now addressing both acceptable and unacceptable practices that were not previously addressed.

International Residential Code	Local Amendments:	Notes:
	Subsection 105.2 "Work exempt from permit" "Building" is hereby amended by deleting item 1 in its entirety and replacing it with a new item 1 as follows: 1. One-story detached accessory structures, provided that the floor area does not exceed 120 square feet (11.15 m²) and the height measured at the highest point does not exceed 7 feet (2134 mm) with option up to a maximum of 9 feet (2743 mm) with setbacks at a ratio of 2 additional feet of setback for each additional 1 foot of building height.	Aligns with City Zoning Ordinances.
	Subsection 105.3.1 "Action on application" is hereby amended by adding the following provisions to the end thereof: A permit may be issued solely after applicant has satisfied all applicable City of Chandler ordinances and requirements.	Make sure the construction permits are not issued until all divisions examine the construction documents and ensure they meet applicable City ordinances.
	Subsection 111.1 "Change of Occupancy", Subsection 111.2 "Certificate Issued" and Subsection 111.3 "Temporary Occupancy" are hereby amended by replacing "building official" with "City of Chandler Development Services Department director or director's designee".	Ensures occupancy certificates are not issued until all City codes addressed.
	Subsection N1101.13.5 (R401.2.5) "Additional energy efficiency" is hereby to delete in its entirety.	The additional energy efficiency requirements will increase additional costs that are far exceed the negligible energy savings.
	TABLE N1102.1.3 (R402.1.3) "INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENT" is hereby amended by replacing Ceiling R-value of "49" with "38" in the climate zone 2.	The increase in ceiling R-value does not contribute substantial energy savings, but it would add substantial costs to builders and homeowners.
	Table N1106.5 (R406.5) "MAXIMUM ENERGY RATING INDEX" is hereby amended by replacing ENERGY RATING INDEX of "52" with "57" in the climate zone 2.	Restores the ERI threshold to the 2018 IECC levels, as adopted by jurisdictions throughout Maricopa County.

	Subsection N1105.3.2 (R405.3.2) "Compliance Report" is hereby amended by replacing "code official before a certificate of occupancy is issued" with "building owner".	There are no ways to get the real data until people really move in and live there.
	SECTION N1108 (R408) "ADDITIONAL EFFICIENCY PACKAGE OPTIONS" is hereby to delete in its entirety.	The additional energy efficiency requirements will increase additional costs that are far exceed the negligible energy savings.
	Model Code Changes:	
	Subsection R302.5 Adds Self-Latching requirement for garage doors leading into the house.	For better protection from fire and gas penetration into dwelling unit.
	Subsection R310.1 Requires a 36" wide path for travel to a public way from emergency escape and rescue openings.	Provides a minimum width for exit travel to public way.
	Subsection R320.1 Adds an exception stating that owner occupied lodging houses with 5 or fewer guestrooms are not required to be accessible.	Benefits home owners.
	Section N1104 Requires all permanently installed lighting fixtures, excluding kitchen appliance lighting fixtures, shall contain only high-efficacy lighting sources.	Currently 90%.
	Subsection P2905.3 Requires the developed length from the water heater to fixtures not to exceed 100 feet.	Reduces wasted hot water and waiting time for occupants for hot water.
	Section E3902 Requires GFCI protection for receptacles up to 250-volt.	Currently up to 125-volt. Provides extra safety.
	Subsection E3902.5 Requires GFCI protection for all receptacles in basements.	Currently required in unfinished basements.
International Fuel Gas Code	Local Amendments:	Notes:
	Subsection 103.1 "Creation of enforcement agency" is hereby amended by inserting Development Services Department as Name of Department.	Specifies the enforcement agency.
	Model Code Changes:	
	Subsection 618.6 Clarifies that return air shall not be taken from the mechanical room containing the furnace.	Return air must be ducted from outside of the mechanical room.

International Energy Conservation Code	Local Amendments:	Notes:
	Subsection C405.11 "Automatic receptacle control" is amended by deleting in its entirety.	It is difficult to enforce in the field since it is hard to determine which portion of the receptacles need to have automatic controls.
	Subsection R401.2.5 "Additional energy efficiency" is hereby to delete in its entirety.	The additional energy efficiency requirements will increase additional costs that are far exceed the negligible energy savings.
	TABLE R402.1.3 "INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENT" is hereby amended by replacing Ceiling R-value of "49" with "38" in the climate zone 2.	The increase in ceiling R-value does not contribute substantial energy savings, but it would add substantial costs to builders and homeowners.
	Table R406.5 "MAXIMUM ENERGY RATING INDEX" is hereby amended by replacing ENERGY RATING INDEX of "52" with "57" in the climate zone 2.	Restores the ERI threshold to the 2018 IECC levels, as adopted by jurisdictions throughout Maricopa County.
	Subsection R405.3.2 "Compliance Report" is hereby amended by replacing "code official before a certificate of occupancy is issued" in the end of the first paragraph with "building owner".	It is not possible to get the real data until occupants move in and live in the dwelling.
	Section R408 "ADDITIONAL EFFICIENCY PACKAGE OPTIONS" is hereby to delete in its entirety.	The additional energy efficiency requirements will increase additional costs that are far exceed the negligible energy savings.

	Model Code Changes:	
	Subsection C405.1.1 Requires no less than 90% of permanently installed lighting for dwelling units, excluding kitchen appliance lighting to have lamps with an efficacy of not less than 65 lm/W (lumens per watt) or luminaires with an efficacy of not less than 45 lm/W.	New language is added for multifamily buildings.
	Subsection C405.2.8 Requires occupant sensors that reduce lighting by not less than 30% when there is no activity for 20 minutes in parking garage.	Saves energy.
	Subsection R404.1 Requires all permanently installed lighting fixtures, excluding kitchen appliance lighting fixtures, shall contain only high-efficacy lighting sources.	Currently 90%.
International Existing Building Code	Local Amendments:	Notes:
	Subsection 103.1 "Creation of enforcement agency" is hereby amended by inserting Development Services Department as Name of Department.	Specifies the enforcement agency.
	Model Code Changes:	
	Subsection 302.2.1 Requires health care occupancies to also comply with NFPA 99 (Health Care Facilities Code).	Meet additional requirements of NFPA 99.
	Subsection 1009.1 Requires complying with the requirements of the IPC if the occupant load is increased by more than 20% when an existing occupancy is changed, and it requires more fixtures or an increased water supply.	Ensures existing buildings with increased occupant loads meet the minimum plumbing fixture requirements.
International Swimming Pool and Spa Code	Local Amendments:	Notes:
	Subsection 103.1 "Creation of enforcement agency" is hereby amended by inserting Development Services Department as Name of Department.	Specifies the enforcement agency.
	Model Code Changes:	
	Subsection 305.2.9 Requires outside equipment to be located no less than 36" from the pool barrier.	Prevents using the equipment bypass the pool barrier.
	Subsection 305.3.4 Requires any openings within 18" of the pool latch release mechanism no greater than ½" in any dimension.	Prevents unwanted entries into pool areas.