

**TOWN OF ORO VALLEY AMENDMENTS TO THE
INTERNATIONAL RESIDENTIAL CODE, 2024 EDITION**

The following provision of the International Residential Code, 2024 Edition, as published by the International Code Council, Inc., is hereby amended as follows:

CHAPTER 1

Delete **Chapter 1 Scope and Administration**, with the exception of **Section R101.1 Title, Section 105 Permits**, and **Section 106 Construction documents**. Note: *(Deleted sections are administered by the 2024 IBC, Chapter 1).*

Revise **Section R101.1 Title**, by replacing [name of jurisdiction] with Town of Oro Valley, Az.

CHAPTER 3

At **Table R301.2(1) Climatic and geographic design criteria**, insert the following text:

GROUND SNOW LOAD	0 PSF
TOPOGRAPHIC EFFECTS	AS REQUIRED
WIND SPEED	105 MPH (168.981 KPH) 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	NFIP: FEBRUARY 2005 FIRM: SEPTEMBER 28, 2012

Revise **Section R302.1 Exterior walls**, by deleting text and tables and replacing them with the following:

Exterior walls with a fire separation distance less than 3 feet (914 mm) 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** as follows:

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.

Delete **Section R309 Automatic fire sprinkler systems**, in its entirety.

Delete **Section R317.5 Fire sprinklers**, in its entirety.

Revise **Section R325 Light, ventilation and heating**, title by replacing the word “*heating*” with the words “*temperature control*.”

Revise **Section R325.4.1 Intake openings**, by adding **Exception 4** to read:

Exception:

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

Revise **Section R325.8 Required heating**, by adding 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 60°F (15.6°C) at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls in all habitable rooms over a 48 hour period as demonstrated by Section N1105 simulated performance alternative.

Add new **Section R325.9 Required cooling**, as follows:

Section R325.9 Required cooling. 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.

CHAPTER 5

Revise **Section R506.3.3 Vapor retarder**, by deleting Exception #4 and replace with the following:

4. Where designed by a qualifying *registered design professional*, based on soil conditions and floor finishing such as exposed concrete surfaces.

CHAPTER 6

Revise **Section R606.6.4.2.1 Roof structures**, by deleting section in its entirety and replacing it with 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 manufacturer's installation requirements, and at intervals not to exceed 48 inches (1219 mm).

Revise **Section R606.4.2.2 Floor diaphragms**, by deleting section in its entirety and replacing it with 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 manufacturer's installation requirements, and at intervals not to exceed 48 inches (1219 mm).

CHAPTER 8

Revise **Section R802.11.1 Uplift resistance**, 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 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 connected by an approved structural sheathing or approved metal connector to provide a continuous load path from the joist, rafter, or truss through the ledger or top plate to the bottom wall plate. Where connectors are used, they shall have a minimum uplift load capacity of 500 lbs, of configuration to match connection and spaced at intervals not to exceed 24 inches (610 mm).

At openings, lower cripple studs do not require connectors, but king/trimmer studs require double 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 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 inch (13 mm) anchor bolts embedded minimum 7 inches (180mm) and spaced at intervals not to exceed 48 inches (1219 mm). Each joist, rafter, or truss shall be connected to the plate at each bearing location with metal connectors with a minimum uplift load capacity of 500 lbs. and

of configuration to match connection. Gable end joists or trusses shall also be clipped at intervals not to exceed 48 inches (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 metal strap purlin anchors of 800 lb. minimum capacity (ASD) installed in accordance with the manufacturer's installation requirements, and at intervals not to exceed 48" inches (1219 mm). Nonbearing roof diaphragm edges shall likewise be anchored to the wall using metal strap purlin anchors connected to one framing bay or 24 inches (610 mm) 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" inches (1219 mm). Ledger designs shall connect to roof trusses with strapping listed for the purpose at intervals not to exceed 48" inches (1219 mm) on all diaphragm sides. If lateral design requires larger anchors or more conservative spacing, the lateral design requirements shall be used in lieu of those called out in this section.

CHAPTER 11

Delete **Chapter 11 Energy Efficiency**, in its entirety and replace it with the following:

Chapter 11 Energy efficiency. Residential buildings regulated by this code shall comply with the International Energy Conservation Code (IECC) as adopted and amended per Town of Oro Valley. Reference to Chapter 11 in other sections of this code shall be for reference to the corresponding IECC Section(s) only.

CHAPTER 14

Revise **Section M1411.9 Condensate disposal**, by adding 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 new **Section M1413.2** as follows:

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.

CHAPTER 24

Revise **Section G2407.11 (304.11) Combustion air ducts**, by adding a new number 9 as follows:

9. Outside combustion air shall be provided through an opening or duct located within 12 inches (305 mm) of the top and within 12 inches (305 mm) of the bottom of enclosed spaces. Openings may connect to spaces directly communicating with the outdoors, such as ventilated attics or crawl spaces. A single duct or opening shall not serve both combustion air openings. Ducts serving the lower opening for liquid petroleum gas (LPG) appliances shall be located at the lowest possible floor level and shall not contain pockets where LPG could accumulate.

Revise **Section G2415.12 Minimum burial depth** as follows:

G2415.12 (404.12) minimum burial depth. Metallic underground piping systems shall be installed a minimum depth of 12 inches (305 mm) below grade. Non-metallic piping shall be located not less than 18 inches (457 mm) below grade.

Delete **Section G2415.12.1 (404.12.1) Individual outside appliances.** in its entirety.

Revise **Section G2427.6.4, Item 1.** as follows:

1. Gas vents that are 12 inches (305 mm) or less in size and located not less than 4 feet (1219 mm) from a vertical wall or similar obstruction shall terminate above the roof in accordance with figure G2427.6.4. Vents located within 4 feet (1219 mm) of a parapet wall must terminate not less than 12 inches (305 mm) above the top of the wall.

CHAPTER 26

Add new **Section P2601.2.1** as follows:

Section P2601.2.1 Gray water piping optional. Note: (if optional grey water piping is installed, it must comply with the following).

1. All new residential dwelling units shall include piping to allow a separate discharge of gray water for direct irrigation in accordance with **Table 2601.2**. When feasible, all gray water discharge piping shall be installed to allow for gravity distribution.
2. All gray water systems shall be designed and operated according to the provisions of the applicable permit authorized by ADEQ under the Arizona Administrative Code, Title 18, Chapter 9.

Table P2601.2

Minimum Gray Water Fixture Requirements

Available distribution area ^a (square feet)	Gray water fixtures ^b
Less than 200	Optional
200 to 400	1
Greater than 400	At least one plus all bathing fixtures with drainage piping above grade ^c plus all clothes washing machines ^d

- a. Available distribution area is the area of the parcel excluding areas within ten (10) feet of load-bearing foundations, two (2) feet of property lines, utility or drainage

- easements, driveways, and not covered by permanent impervious surfaces such as parking pads and patios.
- b. For purposes of this section, gray water fixtures are defined as bathing fixtures (such as bathtubs and showers) and clothes washing machines.
 - c. For purposes of this section, fixtures roughed in below a slab on grade are considered below grade, regardless of the soil elevation on the perimeter of the structure.
 - d. Clothes washing machines located in rooms on grade, with no walls common to the exterior of the structure are not required to be supplied with gray water piping.

At **Sub-Section P2603.5.1 Sewer depth**, where [number] is requested insert [12 inches (305 mm)] in both locations.

CHAPTER 28

Revise **Section P2804.6.1 Requirements for discharge pipe**, by deleting item number 2.

CHAPTER 29

Revise **Section P2902.5.4 Connection to automatic fire sprinkler systems**, by deleting all text therein and replacing it 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.

Revise **Table 2903.1 Required capacities at point of outlet discharge**, by deleting the column titled ***“Flow Pressure (psi)”*** in its entirety.

Revise **Section P2903.2 Maximum flow and water consumption**, by deleting **Section P2903.2** and replace with the following:

The maximum water consumption flow rates and quantities for plumbing fixtures and fixture fittings shall be in accordance with **Table P2903.2** and such fixtures and fixture fittings shall be Environmental Protection Agency (EPA) Watersense certified fixtures or within the maximum flow or quantity required of Watersense certified fixtures, excluding fixture types that are not included under the Watersense program.

Exception: Replacement of existing fixtures that do not require a permit.

Revise **Table P2903.2**, by deleting the table in its entirety and replace with the following:

Table P2903.2 Maximum Flow Rates and Consumption for Plumbing Fixtures and Fixture Fittings^b

Plumbing fixture or fixture fitting	Maximum flow rate or quantity ^b
Lavatory faucet	1.5 gpm at 60 psi
Shower head ^a	2.5 gpm at 80 psi
Sink faucet	1.8 gpm at 60 psi
Water closet	1.28 gallon per flushing cycle

For SI: 1 gallon per minute = 3.785l/m, 1 pound per square inch = 6.895 kpa

- a. A hand-held shower spray shall be considered to be a shower head
- b. Consumption tolerances shall be determined from referenced standards.

Delete **Section P2904.1.1 Required sprinkler locations**, in its entirety and replace with the following:

Amendments to the Golder Ranch Fire District Fire (GRFD Code 2024 Edition designated as public record in: Golder Ranch Fire District fire headquarters office pursuant to Golder Ranch Fire District Resolution 2024-0012 adopted October 15, 2024, effective: July 1, 2025, adopted by the Town of Oro Valley adopted (GRFD) amendments in their entirety with no exceptions.

CHAPTER 30

Revise **Section P3008.1 Where required**, by deleting paragraph and adding new text as follows:

P3008.1 where required. Where the finish floor elevation is less than 12 inches (305 mm) above the elevation of the manhole cover of the next upstream manhole in the public sewer, the fixtures shall be protected by a backwater valve installed in the building drain, branch of the building drain or horizontal branch, serving that floor level. Plumbing fixtures on floor levels at elevations 12 inches (305 mm) or greater above the elevation of the manhole cover of the next upstream manhole in the public sewer shall not discharge through a backwater valve, serving a lower floor level.

Delete **Section P3009 Graywater soil absorption systems**, in its entirety and replace with the following:

Graywater systems shall comply with **Arizona Administrative Code Title 18, Chapter 9**.

CHAPTER 37

Add new **Section E3703.8 dishwasher and garbage disposer branch circuits – dwelling units**:

E3703.8 Dishwasher and garbage disposer branch circuits (dwelling units). In residential occupancies, dishwasher and garbage disposers may share a single 20-ampere branch circuit.

Revise **Section E3705.2 Correction factor for ambient temperatures**, by adding the following:

The ambient temperature for application of **Table 3705.2 [310.15 B(1)]** for outdoor installations shall be not less than 45° C (113° F).

CHAPTER 38

Add new **Section E3802.10 Earthen material wiring method** as follows:

Section E3802.9 E3802.10 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.

APPENDICIES

Adopt Appendices BB (Tiny Houses); **BF** (Patio Covers); **BH** (Automatic Vehicular Gates); **BI** (Light Straw-Clay Construction); **BJ** (Strawbale Construction); **BK** (Cobb Construction, Monolithic Adobe); **BL**

(Hemp-Lime (Hempcrete) Construction); **BM** (3D-Printed Construction); **CA** (Sizing and Capacities of Gas Piping); **CB** (Sizing of Venting Systems serving Appliances Equipped with Draft Hoods, Category 1 Appliances and Appliances Listed for use with Type B Vents); **CD** (Piping Standard for Various Applications); **CE** (Venting Methods); **CF** (Sizing of Water Piping System); **NB** (Solar-Ready Provisions); **NE** (Electric Vehicle Charging Infrastructure).

APPENDIX BB

Revise **Section BB103.1 Minimum ceiling height**, 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).

APPENDIX NB

Revise **Section NB103.1 General**, by deleting the text, “*oriented between 90 degrees and 270 degrees of true north*”.

Revise **Section NB103.4 Obstructions**, by replacing the word “*vent*” with the word “*exhaust*”.

Delete **Section NB103.6 Capped roof penetrations sleeve**, in its entirety.

Delete **Section NB103.10 Construction documentation certificate**, in its entirety.

APPENDIX NE

Revise **Section NE101.1 Definitions**, by deleting the definition of *Electric Vehicle Ready Space (EV Ready Space)* in its entirety and replace it with the following:

Electric vehicle ready space (EV ready space). A designated parking space which is provided with one 40-ampere minimum 208-volt or 240-volt dedicated single phase branch circuit for EVSE servicing electric vehicles. The circuit shall terminate in a suitable termination point such as a NEMA 14-50R receptacle or an EVSE and be located within 10 feet of the proposed location of the EV parking space(s). The ampere and volt minimums described above can be modified with administrative approval to allow for advances in industry standards.

Exception: Provide one EV ready space for future circuit in panel and a minimum ¾” (19.05mm) conduit to minimum 2-gang box at location of EV space.

Revise **Section NE101.2 Electric vehicle power transfer infrastructure**, by deleting the Section in its entirety and replace with the following:

New construction shall facilitate future installation and use of electric vehicle supply equipment (EVSE) in accordance with Sections NE101.2.1 through NE101.3 and NFPA-70, National Electrical Code as adopted.

Delete **Section NE101.2.1 Quantity**, in its entirety and replace with the following:

For each new one- and two-family dwelling and townhouse unit, provide at least one EV ready space. The EV ready panel space branch circuit shall be identified as “EV ready” in the service panel or subpanel directory, and the termination location shall be marked as “EV ready.”

Exception: EV ready spaces are not required where no on-site parking spaces are provided.

Delete **Section NE101.2.3 EV ready spaces**, in its entirety.

Delete **Section NE101.2.4 EVSE spaces**, in its entirety.

Add new **Section Ne101.3 Documentation** as follows:

Section NE101.3 Documentation. Construction documents shall indicate the electric vehicle supply equipment (EVSE) location and shall provide information on wiring methods, circuiting and electrical load calculations which demonstrate that the premises electrical system has load capacity to accommodate the EV charging load.