



**AMENDMENTS TO 2018 INTERNATIONAL RESIDENTIAL CODE (IRC)
FOR ONE- AND TWO-FAMILY DWELLINGS PROPOSED
BY THE CITY OF SOMERTON**

The following amendments, additions and deletions are hereby being proposed to be made to the 2018 International Residential Code (IRC) for One- and Two-Family Dwellings.

Recommendation to City Council by the Residential and Commercial Advisory and Appeal Board on May 2, 2019 is the adoption by reference of the 2018 International Residential Code (IRC) for One- and Two-Family Dwellings, including Appendices G, H, J, K, O, P, Q and S and the amendments below.

Code references not being proposed for amendments shall be enforced as published in the referenced document.

- A. Section R101.1 Title.** Amend to read, "These provisions shall be known as the residential Code for One- and Two-Family Dwellings of the City of Somerton and shall be cited as such and will be referred to herein as "this code".
- B. Section R101.2 Scope.** Add to end of Exception: "Subject to preemption by Arizona Revised Statutes, Title 9, Chapter 7, Article I, Section 807, Mandated Sprinklers in certain Residences Prohibited."
- C. Section R102.4 Referenced Codes and Standards.** Add to end of section, "Where reference in this code is made to the *International Fire Code*, it shall be taken to mean the current adopted fire code."
- D. Section R103.1 Creation of Enforcement Agency.** Amend to read, "The Department of Community Development, Building Safety Division is hereby created and the official in charge thereof shall be known as the Building Official."
- E. Section R104.10.1 Flood Hazard Areas.** Delete section in its entirety in favor of adopted City floodplain ordinances.
- F. Section R105.1 Required.** Add to end of section, "In addition, Park Models as defined in the Chapter 2 of the Code, require a building permit for placement. Electrical connections that are hard-wired to the unit require a separate permit. Mechanical equipment that is external to the unit requires a separate permit. Tie-down anchors are required for a park model installations as specified in Chapter 4."
- G. Section R05.2 Work Exempt from Permit.** Amend item #2 and #9 and add new exemptions #11 and #12 under "Building" to read:
 - 2. "Fences and freestanding masonry walls up to 36 inches (914mm) in height and not retaining earth up to 18 inches (457mm) in depth."

9. "Window awnings supported by an exterior wall that do not project more than 48 inches (1219mm) from the exterior wall and do not require additional support."

11. "Window and door replacements of like size where framing is not altered, and any required emergency egress dimensions are not diminished from existing."

12. "Replacement of an existing electric water heater in the same location."

H. Section R105.10 Toilet Facilities on Construction Sites. Create a new section to read: "Toilet facilities shall be provided for construction workers and such facilities shall be maintained in a sanitary condition. Construction worker toilets of the non-sewer type shall conform to ANSI Z4.3. Toilet facilities shall be required at a ratio of at least one toilet for a maximum of 15 lots under construction."

I. Section R105.11 Construction Debris. Create new section to read: "Construction sites shall be kept reasonably clean of construction debris during the course of construction. Construction debris shall be removed or retained on the lot and not be at risk to be displaced from the lot by wind. Debris shall not be allowed to transfer to adjacent lots or City Rights of Way. If the Building Official determines that the construction site not in compliance with this section or the debris present a safety hazard for inspection personnel, inspections shall not be performed until the construction site is cleaned."

J. Section R106.1.4 Information for Construction in Flood Hazard Areas. Delete item 4 in its entirety.

K. Section R106.4 Amended Construction Documents. Add to end of section, "Changes may be made without resubmittal that are not affecting code-related items, or when otherwise approved by Building Official."

L. Section R108.2 Schedule of Permit Fees. Amend to say, "Refer to current Residential Construction Fee Schedule adopted by the City of Somerton."

M. Section R108.5 Refunds. Amend to read, "The Building Official shall authorize the refunding of fees as follows:

1. The full amount of any fee paid hereunder that was erroneously paid or collected.
2. Not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.
3. Not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan review efforts have been expended.

The Building Official shall not authorize the refunding of any fee paid except upon written application filed by the original permittee or applicant not later than 180 days after the date of fee payment.

- N. Section R108.6 Work Commencing Before Permit Issuance.** Add to end of section, "An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be determined by the Building Official, based on the circumstances, nature, and severity of the infraction. The minimum investigation fee shall be \$50.00, and the maximum shall be an amount up to the same as the fee set forth in the current Residential Construction Fee Schedule adopted by the City of Somerton."
- O. Section R109.4 Approval Required.** Add to end of section, "Inspection comments shall include code section references, when requested."
- P. Section R110.3 Certificate Issued.** Amend to read, "After the Building Official inspects the building or structure and does not find violations of the provisions of this code or other laws that are enforced by the jurisdiction, the Building Official may issue a certificate of occupancy upon request, containing the following:
1. The building permit number
 2. The address of the structure
 3. The name and address of the owner or the owner's authorized agent
 4. A description of that portion of the structure for which the certificate is issued
 5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code
 6. The name of the Building Official
 7. The edition of the code under which the permit was issued
 8. If an automatic sprinkler system is provided and whether the sprinkler system is required
 9. Any special stipulation and conditions of the building permit
- Q. Section R112.1 General.** Add to end of section, "the membership of the Residential and Commercial Advisory and Appeal Board, as prescribed in Chapter 7, Section 7-1-3 of the Somerton City Code, will be the Board of Appeals."
- R. Section R112.3 Qualifications.** Delete section in its entirety.
- S. Section R113.4 Violation Penalties.** Amend to read, "Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, construct, alters or repairs a building or structure in violation of the approved construction documents or directive of the Building Official, or of a permit or certificate issued under the provisions of this code, shall be subject to the penalty and fine described in the Somerton City Code, Chapter 1, Article 1-8."
- T. Section R114.2 Unlawful Continuance.** Amend to read, "Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to the penalty and fine described in the Somerton City Code, Chapter 1, Article 1-8."
- U. Section R202 Definitions.** Create new definition, "**Park Model.** Any factory assembled portable unit, to which is affixed an Arizona recreational vehicle seal, mounted on a chassis and wheels, not more than 12 feet in width and no greater than 400 square feet nor less than 320 square feet in

total area, and permanently connected to utilities that are necessary for the operation of the installed park model with no holding tank.”

- V. Table R301.2(1) Climatic and Geographic Design Criteria.** Amend table to add values applicable to this jurisdiction.

TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ^e	ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
	Speed ^d (mph)	Topographic effects ^k		Weathering	Frost line depth ^b	Termite ^c					
0	90 <u>115</u>	No	D ₀	Negligible	12"	Mod. To Heavy	39	No	1980, 1987, 2004, 2006	0	70 <u>73.9</u>
Manual I Design Criteriaⁿ											
<u>Elevation</u>	<u>Latitude</u>	<u>Winter Heating</u>	<u>Summer Cooling</u>	<u>Altitude Correction Factor</u>	<u>Indoor Design Temp</u>	<u>Design Temp Coolin g</u>	<u>Heating Temp Diff</u>				
207	33	45	109	0.9925	72	75	20				
<u>Cooling Temp Diff</u>	<u>Wind Velocity Cooling</u>	<u>Coincident Wet Bulb</u>	<u>Daily Range</u>	<u>Winter Humidity</u>	<u>Summer Humidity</u>						
23.7	21	7.7	73	M	9.2	127.1					

W. Table R301.2(1) Climatic and Geographic. Add to end of footnote f, "All locations in City of Somerton shall be classified as Seismic Design Category D0."

X. Section R301.2.2.6 Irregular Buildings. Add exception to Item 6. **Perpendicular shear wall and wall bracing.** "Exception: Angled walls, per provisions of Section R602.10.4."

Y. Section R302.1 Exterior Walls. No changes to this section.

Z. Section R304.1 Minimum Area. Add to end of section, "Every dwelling unit shall have at least one habitable room that shall have not less than 120 square feet (11m2) of gross floor area."

AA. Section R304.4 Access from Bedrooms. Create new section to read, "Bedrooms shall not constitute the only means of access to another bedroom or habitable spaces and shall not serve as the only means of egress from other habitable spaces."

BB. Section R313.2 One- and Two-Family Dwellings Automatic Fire Systems. Delete section in its entirety. (Preemption by ARS § 9-807).

CC. Section R313.2.1 Design and Installation. This section is to remain.

DD. Section R317.3.1 Fasteners for Preservative-treated wood. Add fourth exception to section:

4. "Fasteners for preservative-treated wood in areas not normally subjected to high moisture."

- EE. Section R318.1 Subterranean Termite Control Methods.** Add to end of section, “Method 3 or 4 shall be incorporated per Section R317.1, regardless of other methods or combination of methods utilized.”
- FF. Section R322 Flood Resistant Construction.** Delete section in its entirety in favor of adopted City floodplain ordinances.”
- GG. Section R324.2 Solar Thermal Systems.** Amend to read, “Solar thermal systems shall be designed and installed in accordance with Chapter 23 and the current adopted fire code.”
- HH. Section R401.2 Requirements.** Add to end of section, “Engineered fill building pads shall be placed in 12-inch lifts, compacted to not less than 95% Maximum Density, per ASTM D698 or D1557. The building pads shall extend a minimum of 3-feet beyond the footprint or the building at an elevation level not less than 10-inches below the finished floor. Park model installations shall be provided with tie-down anchors shall be installed at each corner of the unit and intermediately spaced at maximum 12 feet (3658mm) on-center.”
- II. Section R401.2 Requirements.** Add exception to section: “**Exception:** Fills depths 12-inches or less may not require testing subject to determination by the Building Official.”
- JJ. Section R403.1.2 Continuous Footing in Seismic Design Categories D0, D1 and D.** Amend third sentence to read, “ Required interior braced wall panels at building located in Seismic Design Categories D0, D1 and D2 shall be supported by continuous solid or fully grouted masonry or concrete footings in accordance with Section R403.1.3.4 at intervals not exceeding 60 feet (18288mm) in both directions.”
- KK. Section R403.1.3 Footing and Stem Wall Reinforcing in Seismic Design Categories D0, D1 and D2.** No changes to this section.
- LL. Section R403.1.3.4 Interior Bearing and Braced Wall Panel Footings in Seismic Design Categories D0, D1 and D2.** Amend to read, “In Seismic Design Categories D0, D1 and D2, interior footings supporting bearing walls or braced wall panels with a foundation, and cast monolithically with a slab on grade, shall extend to a depth not less than 12 inches (305mm) below the top of the slab.”
- MM. Section R403.1.4 Minimum Depth.** Amend first sentence to read, “All exterior footings shall be placed at least 12 inches (305mm) below the undisturbed ground surface, or 12 inches (305mm) into engineered pad.”
- NN. Section R403.1.61 Foundation anchorage in Seismic Design Categories C, D0, D1 and D2.** Add item 7 to section:
7. “Interior braced wall panels when not supported by a continuous foundation shall be attached to the concrete slab on ground using ½ inch (12.7mm) diameter anchor or expansion bolts spaced at not more than 6 feet (1829mm) on center, or an equivalent method such as approved pneumatic anchor pins as per manufacturer requirements. Cut nails or adhesives shall not be permitted.”

OO. Section R408.7 Flood Resistance. Delete section in its entirety in favor of adopted City floodplain ordinances.

PP. Section R506.1 General. Add to end of section, "Control joints in reinforced concrete slab-on-ground floors shall be provided at maximum 12 feet (3658mm) on center in both directions."

QQ. Section R506.2.3 Vapor Retarder. Amend section to read, "Section R506.2.3 Vapor Retarder (Optional)."

RR. Section R602.10.10.3 Spacing of Braced Wall Lines. Add exceptions to section:

- 1.1 Wall bracing at braced wall lines surrounding the single room and one attached garage shall be Method WSP of Section R602.10.4.
- 1.2 Braced wall panel locations shall be as per Sections R602.10.2.2 and R602.10.5.
- 1.3 The entire length of braced wall lines surrounding the single room and garage shall be continuously sheathed with wood structural panel sheathing (WSP)
- 1.4 Braced wall panel locations at the single room and garage shall have a maximum 3 ½:1 height-width ratio, except for methods ABW and PFH of Section R602.10.4.
- 1.5 Braced wall lines surrounding the single room and garage shall be supported by continuous foundations around the entire braced wall lines.
- 1.6 Spacing of all other interior braced wall lines shall not exceed 25 feet.

SS. Section R602.10.2.2.1 Braced Wall Panel Location in Seismic Design Categories D0, D1 and D2.

Add exceptions 3 and 4 to section:

3. Interior braced wall panels shall begin within 10 feet (3810mm) from each end of a braced wall line as determined in Section R602.10.1.1.
4. For braced wall panel construction Method WSP of Section R602.10.4, the braced wall panel shall be permitted to begin no more than 12.5 feet (3810mm) from each end of the braced wall line, where a designed collector is provided. See sketches SK1, SK2 and SK3 (copies available at CDD front desk, upon request) for designed and applicable conditions."

TT. Section R602.10.7 Ends of Braced Wall Lines with Continuous Sheathing. Add exception to section:

"Exception: the first braced wall panel shall be permitted to begin 12.5 feet (3810mm) from each end of the braced wall line in Seismic Design Category D0, where a designed collector is provided. See sketches SK1, SK2 and SK3 (copies available at CDD front desk, upon request) for designed collectors and applicable conditions."

UU. Section R02.10.8 Braced Wall Panel Connections. Add to end of section: this section also applies for connections of interior braced wall panels to roof trusses and rafters."

VV. Table R702.3.5 Minimum Thickness and Application Gypsum Board and Gypsum Panel Products.

Amend last sentence of footnote “d” of table to read, “Where applying a water-based texture material, the minimum gypsum board thickness shall be increased from 3/8 inch to ½ inch for 16-inch on center framing.”

WW. Section N1101.14 (R401.) Certificate (Mandatory). Amend Section title to read, “Section N1101.14 (R401.3) Certificate (Optional).”

XX. Section N1102.3 (R402.3) Fenestration (Prescriptive). Add exception to section:

“**Exception:** Standard insulated garage doors shall be permitted at conditioned garages and are not subject to fenestration air leakage requirements of Section N1102.4.3. For use of this exception, the garage conditioning shall be a dedicated mechanical system. Register/diffuser openings at the garage ceiling shall include ceiling radiation dampers or ducts shall be constructed of minimum No. 26 gage (0.48mm) sheet steel.”

YY. Section N1102.4 (R402.4) Air Leakage (Mandatory). Add to end of section, “Building envelope air tightness and insulation installation shall be demonstrated to comply with one of the following options given by Section N1102.4.1.2 or N1102.4.1.3.”

ZZ. Section N1102.4.1.2 (R402.4.1.2) Testing. Amend section title to read, “N1102.4.1.2 (R402.4.1.2) Testing Option.”

AAA. Section N1102.4.1.3 Visual Inspection Option. Create new section to read, “The components listed in Table N1102.4.1.1, applicable to the method of construction, are field verified. Where required by the Building Official, an approved party independent from the installer of the insulation, shall inspect the air barrier and insulation.”

BBB. Table N1102.4.1.1 (R402.4.1.1) Air Barrier and Insulation Installation. Amend as follows:

- a. “COMPONENT, ‘shower/tub on exterior wall.’ Delete in its entirety.
- b. “COMPONENT, ‘Electrical/phone box on exterior walls.’ Delete in its entirety.

CCC. Section N1103.5 (R403.5) Service Hot Water Systems. Amend section title to read, “Service hot water systems (Optional).”

DDD. Section N1103.5.1 (R403.5.1) Heated Water Circulation and Temperature Maintenance Systems (Mandatory). Amend section title to read, “Heated water circulation and temperature maintenance systems (Optional).”

EEE. Section N1103.6 (R403.6) Mechanical Ventilation. Amend section title to read, “Section N1103.6 (R403.6) Mechanical Ventilation (Optional).”

FFF. Section N1103.3 (R403.10.3) Covers. Amend section title to read, “Section N1103.10.3 (R03.10.3) Covers (Optional).”

GGG. Section N1103.12 (R403.12) Residential Pools and Permanent Residential Spas. Delete section in its entirety.

HHH. Section N1104.1 (R404.1) Lighting Equipment (Mandatory). Amend section to read, "Section N1104.1 (R404.1) Lighting equipment (Optional)."

III. Section M1602.2 Return Air Openings. Amend exception 5 to read:

5. "For other than dedicated HVAC systems return air shall not be taken from indoor swimming pool enclosures and associated deck areas."

JJJ. Section G2406.2 (303.3) Prohibited Locations. Delete items 3 and 4 in their entirety.

KKK. Section G2407.5 (304.5) Indoor Combustion Air. Add to beginning of section, "Indoor combustion air shall not be used in new construction within the building envelope. Garages of minimum 400 square feet in area may use combination of infiltration and partial exterior combustion air for one standard water heater fuel gas appliance up to 50,000 btu/h total input capacity."

LLL. Section G2407.7 (304.7) Combination Indoor and Outdoor Combustion Air. Add to beginning of section, "Combination indoor and outdoor combination air shall not be used in new construction within the building envelope. Garages of minimum 400 square feet in area may use combination of infiltration and partial exterior combustion air for one standard water heater fuel gas appliance up to 50,000btu/h total input capacity."

MMM. Section G2413.2 (402.2) Maximum Gas Demand. Add to beginning of section, "Where an input rating is not indicated, the gas supplier, appliance manufacturer or a qualified agency shall be contacted, or the rating from Table G2413.4 may be used for estimating the volumetric flow of gas to be supplied."

NNN. Section G2414.5.3 (403.5.3) Copper -Alloy Tubing. Add to end of section, "Copper or copper alloy tubing shall not be used in natural gas piping systems, due to hydrogen sulfide content which cannot be guaranteed to be delivered from the serving utility provider to meet the code acceptable levels."

OOO. Section G2415.12 (404.12) Minimum Burial Depth. Amend to read, "Underground piping systems shall be installed a minimum depth of 12 inches (305mm) below grade, ~~except as provided for in Section G2415.12.2.~~"

PPP. Section G2415.12.1 (404.12.1) Individual Outdoor Appliances. Delete section in its entirety.

QQQ. Section G2415.17.1 (404.17.1) Limitations. Amend exception 3 to read:

3. "Plastic pipe shall be permitted under uncovered outdoor patio, walkway and driveway slabs provided that the burial depth complies with Section G2415.12"

RRR. Table G2427.10.4 (503.10.4) Minimum Thickness for Galvanized Steel Vent Connectors for Low-heat Appliances. Amend table to add metal gauge equivalent for minimum thickness indicated:

Thickness	Gauge
0.019 inch	28 Ga.
0.023 inch	26 Ga.
0.029 inch	24 Ga.
0.034 inch	22 Ga.
0.056 inch	18 Ga."

SSS. Section G2445.4 (621.4) Prohibited Locations. Add to end of section, "Unvented room heaters shall not be installed in bedrooms or bathrooms."

TTT. Section P2503.4 Building Sewer Testing. Amend first paragraph to read:

"The building sewer shall be tested by insertion of a test plug at the point of connection with the public sewer, filling the building sewer with water and pressurizing the sewer to not less than a 5-foot (1524mm) head of water. The test pressure shall not decrease during a period of not less than 15 minutes. The building sewer shall be watertight at all points."

Delete second paragraph in its entirety.

UUU. Section P2503.5.2 Finished Plumbing. Delete item 2 in its entirety.

VVV. Section P2603.5.1 Sewer Depth. Amend to read, "Building sewers that connect to private sewage disposal systems shall be at not less than 12 inches (305mm) below grade."

WWW. Section P2804.6.1 Requirements for Discharge Pipe. Amend item 5 to read:

5. "Discharge to the floor of the garage (where the garage floor is sloped and below the floor level of the dwelling), to a waste receptor or to the outdoors."

XXX. Section P2902.5.3 Lawn Irrigation Systems. Rename section to read, "Section P2902.5.3 Landscape irrigation systems." Add to beginning of section, "A landscape irrigation system shall be provided for all new dwellings, consisting of a stub-out, electric valve (or valves) and backflow protection."

YYY. Section P2904.1 General. Add item 5 to end of section:

5. "The system is integral with the domestic water piping system. See Section P2902.5.4 for protection of separate/independent sprinkler piping systems."

ZZZ. Section P2906.5 Water Distribution Pipe. Add to end of section, "Use of copper at inaccessible water piping under slabs shall be limited to Type K, with no joints."

AAAA. Section E3406.3 Minimum Size of Conductors. Amend first sentence to read, "The minimum size of conductors for feeders and branch circuits shall be 12 AWG copper and 1 AWG aluminum or copper-clad aluminum for current carrying conductors (shall not apply for grounding conductor)."

BBBB. Section E3601.1 Scope. Add to end section, "Local utility company installation regulations may exceed/supersede installation requirements of this chapter."

CCCC. Section E3604.2.2 Vertical Clearance from Grade. In item 1, amend 10 feet (3048mm) to 12 feet 6 inches (3810mm). In item 2, amend 12 feet (3658mm) to 12 feet 6 inches (3810mm).

DDDD. Section E3607.3.2 Grounded Conductor, Existing Premises. Add exception to section:

"Exception: If the Load Center or Panel Board does not have provisions for a Main Disconnect and an approved fastening method a permanent placard shall be installed on the Main Service to indicate the location of the detached Panel on the property. The over current protective device shall also have a lock-out device installed."

EEEE. Table E3702.14 (Table 210.24) Branch-Circuit Requirements-Summary. Amend Table to delete 14AWG conductors.

FFFF. Section E3901.12 HVAC Outlet. Amend exception to read:

"Exception: A receptacle outlet shall not be required for the serving of evaporative coolers or rooftop HVAC equipment."

GGGG. Section E3902.2 Garage and Accessory Building Receptacles. Add exception to section:

"Exception: GFCI protection shall not be required for single receptacle outlets dedicated for a specific use (such as a freezer) and single receptacle outlets for garage door openers."