

Scope: The International Residential Code (IRC) regulates the construction, renovation, repair, and other construction activities (which a few exceptions) of single-family, duplexes, and some townhomes. This is a unique code in that it is an aggregation of all of the provisions as outlined in other codes (building, mechanical, electrical, plumbing, etc) to have a one-stop shop for requirements of structures that meet the outlined description in the administrative chapter. By adopting the IRC, a city ensures that development of specific residential structures aligns with nationally recognized safety standards while allowing for local amendments that reflect the unique needs and priorities of the community.

Significant Changes (including changes made in the 2021 version and the 2024 version, noted in parentheses on which year the change took effect):

The intent of the content below is not intended to capture each change to the text of the code for all items related to restructuring or moving content, updates to definitions/clarifications, or minor provisions with insignificant impact. More context can be provided upon request for any of the changes that have occurred in each of the code editions.

Chapter 1 Scope and Administration

- Updated role and responsibility of the building official to extend to granting this individual the right to determine compliance with the code as well as items that can be requested to confirm said compliance (2024).
- Requires all fences that serve as a pool barrier to be permitted regardless of height (2024).

Chapter 2 Definitions

[No significant changes]

Chapter 3 Building Planning

- General updates to the design criteria maps that incorporate historical climate and geological data (2021 & 2024).
- Dimensions are allowed to be reduced for emergency escape and rescue openings for a basement remodel, basement addition and for a change of occupancy (2021).
- Repairs to an existing fuel-fired mechanical system now initiate the retroactive requirements for carbon monoxide alarms (2021).
- Requirements for integrated solar shingle type systems no longer have to meet roof setback requirements (2021).
- Requirements are now present for vertically stacked duplexes (2024).
- Shared accessory rooms and their fire separation requirements mirror requirements for attached garages (2024).
- Accessory structures and detached garages are allowed in flood hazard areas with floors below the required lowest floor (2024).
- New section outlining requirements for sleeping lofts similar to the IBC (2024).
- EV charging stations and automotive lift equipment now have installation and operation requirements (2024).
- A much needed section regulating private elevators has now been included (2024).
- Many new requirements protecting battery energy storage systems from the occupants and the rest of the home (2024).

Chapter 4 Foundations

- Stem walls are now required for basement walls retaining loads from adjacent soils (2024).

Chapter 5 Floors

- Explicit requirements for guards at the edge of certain decks to help limit falls (2021).

- New requirements have been added for post-tensioned slabs, which were not present before (2024).
- New flashing requirements are more specifically outlined (2024).

Chapter 6 Wall Construction

- Garage doors now require permanent labeling identifying information including wind pressure ratings (2021).

Chapter 7 Wall Covering

[No significant changes]

Chapter 8 Roof-Ceiling Construction

[No significant changes]

Chapter 9 Roof Assemblies

- Added requirements for the new technology of building-integrated photovoltaic (BIPV) roof panels (2024).
- Reroofing now is allowed to reuse underlayment in certain situations (2024).

Chapter 10 Chimneys and Fireplaces

[No significant changes]

Chapter 11 Energy Efficiency

- Based on national geologic and climate data, updates to the climate zone map have been made (note that no change in climate zone was made for our immediate area) (2021 & 2024).
- Updates were made to increase energy efficiency and conservation through a number of items such as envelope insulation minimums, fenestration (window) minimums, air sealing, appliances, etc. (2021 & 2024).

Chapter 12 Mechanical Administration

[No significant changes]

Chapter 13 General Mechanical System Requirements

[No significant changes]

Chapter 14 Heating and Cooling Equipment and Appliances

- Allowed the use of A2L type refrigerants in residential structures and included regulations when utilizing this refrigerant (2024).

Chapter 15 Exhaust Systems

[No significant changes]

Chapter 16 Duct Systems

[No significant changes]

Chapter 17 Combustion Air

[No significant changes]

Chapter 18 Chimneys and Vents

[No significant changes]

Chapter 19 Special Appliances, Equipment and Systems

[No significant changes]

Chapter 20 Boilers and Water Heaters

[No significant changes]

Chapter 21 Hydronic Piping

[No significant changes]

Chapter 22 Special Piping and Storage Systems

[No significant changes]

Chapter 23 Solar Thermal Energy Systems

[No significant changes]

Chapter 24 Fuel Gas

- Chimney lining are now required for replacement appliances if they are using an existing chimney (2024).

Chapter 25 Plumbing Administration

[No significant changes]

Chapter 26 General Plumbing Requirements

[No significant changes]

Chapter 27 Plumbing Fixtures

- A shower receptor test is now required to ensure water-tightness (2024).
- A standpipe is added as an option of connecting the dishwasher to the wastewater line (2024).

Chapter 28 Water Heaters

[No significant changes]

Chapter 29 Water Supply and Distribution

[No significant changes]

Chapter 30 Sanitary Drainage

- Expansion of allowed methods of underground sewer repair to include the relining.

Chapter 31 Vents

[No significant changes]

Chapter 32 Traps

[No significant changes]

Chapter 33 Storm Drainage

[No significant changes]

Chapter 34 General Requirements

[No significant changes]

Chapter 35 Electrical Definitions

[No significant changes]

Chapter 36 Services

- An emergency service disconnect is required in a readily accessible outdoor location (2021).
- A “whole house” surge-protective device (SPD) is now required at the service panel (2021).

Chapter 37 Branch Circuit and Feeder Requirements

- Only the required bathroom receptacle outlets or those serving a countertop need to be on the dedicated 20-amp bathroom circuit (2021).
- 10A circuits are now allowed in certain circumstances and used (2024).

Chapter 38 Wiring Methods

[No significant changes]

Chapter 39 Power and Lighting Distribution

- Updates to peninsula and island requirements now not allowed to be located below the countertop AND is now optional but prewired for future installation (2024).
- Most receptacles in a kitchens, basements, and outdoors are now required to be GFCI rated along with other locations (such as mudrooms) that are subject to damp or wet environment (2021 & 2024).
- Replacement of existing electric ranges and clothes dryers requires a grounded conductor connection (2024).

Chapter 40 Devices and Luminaires

[No significant changes]

Chapter 41 Appliance Installation

[No significant changes]

Chapter 42 Swimming Pools

[No significant changes]

Chapter 43 Class 2 Remote-Control, Signaling and Power-Limited Circuits

[No significant changes]

Chapter 44 Referenced Standards

- General updates to the codes and standards that are referenced by the residential code (2021 & 2024).

Appendixes have been largely reorganized between the 2021 and the 2024 IRC. See chart below that outlines this restructuring.

Designation		Appendix Title
2024 IRC	2018 IRC	
Administrative Appendixes		
AA	—	Board of Appeals
AB	L	Permit Fees
Building Appendixes		
BA	E	Manufactured Housing Used as Dwellings
AE	Q	Tiny Houses
BC	—	Accessory Dwelling Units (ADU)
BD	M	Home Day Care R-3 Occupancy
BE	F	Radon Control Methods
BF	H	Patio Covers
BG	K	Sound Transmission
BH	A	Automatic Vehicular Gates
BI	R	Light Straw-Clay Construction
BJ	S	Strawbale Construction
BK	—	Cob Construction (Monolithic Adobe)
BL	—	Hemp-Lime (Hempcrete) Construction
BM	—	3D-Printed Building Construction
BN	—	Extended Plate Wall Construction
BO	J	Existing Buildings and Structures
PMG Appendixes		
CA	A	Sizing and Capacities of Gas Piping

CB	B	Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances and Appliances Listed for Use with Type B Vents
CC	D	Recommended Procedure for Safety Inspection of an Existing Appliance Installation
CD	G	Piping Standards for Various Applications
CE	N	Venting Methods
CF	P	Sizing of Water Piping System
CG	—	Nonsewered Sanitation Systems
CH	I	Private Sewage Disposal
Energy Appendices		
NA	—	Reserved
NB	T	Solar-Ready Provisions—Detached One- and Two-Family Dwellings and Townhouses
NC	—	Zero Net Energy Residential Building Provisions
ND	—	Electric Energy Storage Provisions
NE	—	Electric Vehicle Charging Infrastructure
NF	—	Alternative Building Thermal Envelope Insulation R-Value Options
NG	—	2024 IECC Stretch Code
NH	—	Operational Carbon Rating and Energy Reporting
NI	—	On-Site Renewable Energy
NJ	—	Demand Responsive Controls
NK	—	Electric-Ready Residential Building Provisions
NL	—	Renewable Energy Infrastructure
Resource A	—	All-Electric Residential Buildings

Note: only modified Appendices have been included in the list below.

[Appendix AF Radon Control Methods](#)

- New requirements are outlined for radon testing, which were not required before (2021).

[Below are new Appendices that have been included for prescriptive guidance for select construction methods]

[Appendix BC Accessory Dwelling Units \(ADUs\)](#)

[Appendix BN Extended Plate Wall Construction](#)

[Appendix BO Existing Buildings](#)

[Appendix CG Other Sanitation Systems](#)

Appendix ND Electric Energy Storage
Appendix NE Ev Charging Infrastructure
Appendix NF Alternative R-Value Options
Appendix NG 2024 Stretch Code
Appendix NH Operational Carbon Rating
Appendix NI On-Site Renewable Energy
Appendix NJ Demand Responsive Controls
Appendix NK Electric-Ready Building Provisions
Appendix NL Renewable Energy Infrastructure
Resource A All-Electric Residential Buildings